ALPHA ANALYTICAL

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Lab Number: L1629119

Client: Floyd Snider, Inc.

ATTN: Teri Floyd

Project Name: LDW/AC PILOT STUDY

Project Number: LY15160310

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Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1629119
Project Manager: Elizabeth Porta **Review Date:** 10/06/2016
Project Number: LY15160310
Project Name: LDW/AC PILOT STUDY **Received:** 09/15/2016 09:53
Client Account: Floyd Snider Inc **Received by:** BB

Samples Delivered by: FEDEX **Call Tracker #**
Bill Of Laden N/A **Trackingnum** 7772318024444,777231802569
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
B	Absent	No	Yes	2.2 - IR Gun	No	No

A	Absent	No	Yes	2.0 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Oct 06 2016, 06:29 pm

Login Number: L1629119
Account: FLOYDSNI Floyd Snider IncProject: LY15160310
Received: 15SEP16 Due Date: 06OCT16

Sample #	Client ID	Mat	PR	Collected	Container
L1629119-01	LDW-BA-SC-ENR-CA-CO	3	S0	10SEP16 13:05	1-Glass-A.25,1-Glass-A.5

L1629119-01 MS Grain Size: Use both #200 and #230 sieves Soot report 2 reps L1629119-01 DUP DPKG-FULL Package Due Date: 10/06/16

A2-DUP,A2-MS,A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS,DPKG-FULL

L1629119-02	LDW-BA-SC-ENR-CB-CO	3	S0	10SEP16 12:10	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

L1629119-03	LDW-BA-SC-ENR-CC-CO	3	S0	10SEP16 12:25	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

L1629119-04	LDW-BA-SC-ENR-CD-CO	3	S0	10SEP16 13:35	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

HOLD

L1629119-05	LDW-BA-SC-ENR-CE-CO	3	S0	12SEP16 11:45	2-Glass-A.25

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

HOLD

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Oct 06 2016, 06:29 pm

Login Number: L1629119
Account: FLOYDSNI Floyd Snider IncProject: LY15160310
Received: 15SEP16 Due Date: 06OCT16

Sample #	Client ID	Mat	PR	Collected	Container
L1629119-06	LDW-BA-SC-ENR+AC-CA	3	S0	09SEP16 10:08	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND, A2-SOOT,A2-TOC-9060-2REPS

L1629119-07	LDW-BA-SC-ENR+AC-CB	3	S0	09SEP16 09:45	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND, A2-SOOT,A2-TOC-9060-2REPS

L1629119-08	LDW-BA-SC-ENR+AC-CC	3	S0	09SEP16 16:00	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND, A2-SOOT,A2-TOC-9060-2REPS

L1629119-09	LDW-BA-SC-ENR+AC-CD	3	S0	09SEP16 16:30	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

HOLD

L1629119-10	LDW-BA-SC-ENR+AC-CE	3	S0	09SEP16 16:50	1-Glass-A.25,1-Glass-A.5

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

HOLD

L1629119-11	LDW-BA-IN-ENR-CA-CO	3	S0	14SEP16 11:30	2-Glass-A.25

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

Sample #	Client ID	Mat	PR	Collected	Container

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

L1629119-12 LDW-BA-IN-ENR-CB-CO 3 S0 14SEP16 10:40 2-Glass-A.25
Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

L1629119-13 LDW-BA-IN-ENR-CC-CO 3 S0 14SEP16 11:42 2-Glass-A.25
Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

L1629119-14 LDW-BA-IN-ENR+AC-CA 3 S0 14SEP16 10:20 2-Glass-A.25
Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

L1629119-15 LDW-BA-IN-ENR+AC-CB 3 S0 14SEP16 10:55 2-Glass-A.25
Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND,A2-SOOT,A2-TOC-9060-2REPS

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Oct 06 2016, 06:29 pm

Login Number: L1629119
Account: FLOYDSNI Floyd Snider IncProject: LY15160310
Received: 15SEP16 Due Date: 06OCT16

Sample #	Client ID	Mat	PR	Collected	Container
L1629119-16	LDW-BA-IN-ENR+AC-CC	3	S0	14SEP16 09:57	2-Glass-A.25

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND, A2-SOOT,A2-TOC-9060-2REPS

L1629119-17	LDW-BA-IN-ENR+AC-CD	3	S0	13SEP16 11:40	2-Glass-A.25

Grain Size: Use both #200 and #230 sieves Soot report 2 reps Package Due Date: 10/06/16

HOLD

L1629119-18	LDW-BA-SC-ENR-CA-CO	3	S0	10SEP16 13:05	1-Glass-A.25

Grain Size: Use both #200 and #230 sieves This is a Dupliate of sample -01 Package Due Date: 10/06/16

A2-SIEVE-HYDROMETER,A2-HYDRO-CFINE,A2-HYDRO-CGRAVEL,A2-HYDRO-COBBLES,A2-HYDRO-CSAND,A2-HYDRO-FGRAVEL,A2-HYDRO-FSAND,A2-HYDRO-MSAND,A2-HYDRO-SFINE,A2-HYDRO-TFINE,A2-HYDRO-TGRAVEL,A2-HYDRO-TSAND

Logged By: Kelly Stenstrom

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1629119-01A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-01A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-01A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-01A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-01A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-01A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-01A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-01B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-01B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-01B	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-01B	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-02A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-02A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-02A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-02A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-02A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-02A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-02A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-02B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-02B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-02B	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-02B	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-03A	Glass-A.5	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-03A	Glass-A.5	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-03A	Glass-A.5	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1629119-03A	Glass-A.5	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-03A	Glass-A.5	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-03A	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-03A	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-03B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-03B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-03B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-03B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-04A	Glass-A.5	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-04A	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-04A	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L1629119-04B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-04B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L1629119-05A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-05A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-05A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-05A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-05A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-05B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-05B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-06A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-06A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-06A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-06A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-06A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1629119-06A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-06A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-06B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-06B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-06B	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-06B	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-07A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-07A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-07A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-07A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-07A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-07A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-07A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-07B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-07B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-07B	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-07B	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-08A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-08A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-08A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-08A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-08A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-08A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-08A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-08B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1629119-08B	Glass-A.5	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-08B	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-08B	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-09A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-09A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-09A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-09A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-09A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-09B	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-09B	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-10A	Glass-A.5	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-10A	Glass-A.5	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-10A	Glass-A.5	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-10B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-10B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-11A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-11A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-11A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-11A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-11A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-11A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-11A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-11B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-11B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-11B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1629119-11B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-12A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-12A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-12A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-12A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-12A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-12A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-12A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-12B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-12B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-12B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-12B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-13A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-13A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-13A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-13A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-13A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-13A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-13A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-13B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-13B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-13B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-13B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-14A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-14A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1629119-14A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-14A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-14A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-14A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-14A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-14B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-14B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-14B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-14B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-15A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-15A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-15A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-15A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-15A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-15A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-15A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-15B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-15B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-15B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-15B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-16A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-16A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-16A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-16A	Glass-A.25	INTACT	30-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Ashley Roulx	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Ashley Roulx
L1629119-16A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1629119-16A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-16A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-16B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-16B	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-16B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-16B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-17A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Sonal Patel
L1629119-17A	Glass-A.25	INTACT	03-OCT-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X3	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-17A	Glass-A.25	INTACT	21-SEP-16	CUSTODY	A2-CUSTODY-NOAA4	Ashley Roulx	A2-CUSTODY-FRZ1-X3	A2-CUSTODY-FRZ1-X3	Ashley Roulx
L1629119-17A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-NOAA4	A2-CUSTODY-NOAA4	Bethany Bedard
L1629119-17A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-17B	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-17B	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1629119-18A	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Sonal Patel
L1629119-18A	Glass-A.25	INTACT	28-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-GRAINSIZE1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1629119-18A	Glass-A.25	INTACT	15-SEP-16	CUSTODY	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-GRAINSIZE1	A2-CUSTODY-GRAINSIZE1	Bethany Bedard
L1629119-18A	Glass-A.25	INTACT	15-SEP-16	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta

Communications

Call Tracker Report

Call # 88456

Call #:	88456	Contact:	
Call Date:	09/15/16 18:44	Company:	Floyd Snider Inc
Status:	NEED	Acct #:	FLOYDSNI
Date:	09/15/16 18:44	Project #:	LY15160310
Operator:	LPORTA	Client Proj:	LDW/AC PILOT STUDY
Type:	Live	Login #:	L1629119

Call Details

Sample -01 added as -18 for a grain size "triplicate". MS/DUP added to sample -01 - EMP 9/15/16

We only need an MS on TOC/BC for these sediment samples, not an MSD and one laboratory duplicate.
We need a laboratory triplicate for grain size.

I guess I forgot the hold part - can you not analyze the following samples until further notice?

LDW-BA-SC-ENR+AC-CD-CORE
LDW-BA-SC-ENR+AC-CE-CORE
LDW-BA-SC-ENR-CD-CORE
LDW-BA-SC-ENR-CE-CORE
LDW-BA-IN-ENR+AC-CD-CORE

Thanks!

Gretchen Heavner, Ph.D.
FLOYD | SNIDER
601 Union Street, Suite 600 | Seattle, WA 98101
tel: 206.292.2078 | fax: 206.682.7867
Gretchen.Heavner@floydsnider.com | www.floydsnider.com

Chain of Custody

MANSFIELD CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/15/16

ALPHA Job #: TBD L1629119

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program *Criteria*

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TOC EPA 9060A(m)	GS ASTM D422 using #230 sieve	Black Carbon Gustafsson (1997)										Sample Specific Comments	TOTAL # BOTTLES
	~~See attached COC forms~~			sediment	—	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	See attached	1
2919-01	LDW-BA-SC-ENR-CA-CORE	9/10/16	1305		JL	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-02	CB		1210			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-03	CC		1225			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-04	CD		1335			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-05	CE	9/12/16	1145		BWG	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-06	LDW-BA-SC-ENR+AC-CA-CORE	9/09/16	1008		JL	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-07	CB		0945			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-08	CC		1600			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-09	CD		1630			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	A	A	A	-	-	-	-	-	-	-	-	-		
					Preservative	A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Julia Levengood	9/14/16 1430	Fedex	
Fedex	9/15/16 9:53		9/15/16 9:53

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

MANSFIELD CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/15/16

ALPHA Job #: TBD L1629119

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TOC EPA 9060A(m)	GS ASTM D422 using #230 sieve	Black Carbon Gustafsson (1997)										Sample Specific Comments	TOTAL # BOTTLES
	~~See attached COC forms~~			sediment	—	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	See attached	1
-10	LDW-BA-SC-ENR+AC-CE-CORE	9/09/16	1650		JL	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-11	LDW-BA-IN-ENR-CA-CORE	9/14/16	1130			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-12	CB		1040			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-13	CC		1142			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-14	LDW-BA-IN-ENR+AC-CA-CORE	9/14/16	1020			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-15	CB-		1055			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-16	CC		0957			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-17	CD	9/12/16	1140		BWG	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Julia Levengood	9/14/16 1430	Fedex	
Fedex	9/15/16 9:53		9/15/16 9:53

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ALPHA Job #: TBD L1629119

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program *Criteria*

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Phone: 425-921-4023

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Email: cliff.whitmus@amecfw.com

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Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TOC EPA 9060A(m)	GS ASTM D422 using #230 sieve	Black Carbon Gustafsson (1997)										Sample Specific Comments	TOTAL # BOTTLES
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	LDW-BA-SC-ENR-CA-CORE	9/10/16	1305		JL	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CB		1210			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		1225			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CD		1335			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CE	9/12/16	1145		BWG	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	LDW-BA-SC-ENR+AC-CA-CORE	9/09/16	1008		JL	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CB		0945			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		1600			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CD		1630			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	A	A	A	-	-	-	-	-	-	-	-	-		
					Preservative	A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Julia Levengood	9/14/16 1440	Fedex	
Fedex	9/15/16 9:53	[illegible]	9/15/16 9:53

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Project Manager: Liz Porta

ALPHA Quote #: M2015033

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☐ FAX
☐ ADEx

Data Deliverables

☒ EMAIL
☐ Add'l Deliverables

Billing Information

☒ Same as Client info
PO #:

Regulatory Requirements/Report Limits

State/Fed Program | *Criteria*

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☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:
POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

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ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
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Preservation
☐ Lab to do
(Please specify below)

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	LDW-BA-SC-ENR+AC-CE-CORE	9/09/16	1650		JL	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	LDW-BA-IN-ENR-CA-CORE	9/14/16	1130			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CB		1040			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		1142			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	LDW-BA-IN-ENR+AC-CA-CORE	9/14/16	1020			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CB		1055			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		0957			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CD	9/13/16	1140		BWG	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Julia Levengood	9/14/14 1440	Fedex	
Fedex	9/15/16 9:53		9/15/16 9:53

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FORM NO: 101-09(I-NJ)
(rev. 5-JAN-12)

Wet Chemistry

Organic Carbon Analysis

Sequence Logs

Date of report: 10/6/2016 8:10 AM
User ID: Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
K1	1	10.480	10/4/2016 3:16:09 PM	19.189	1.072	-.002	27463	29527	30039	2750
BLANK	2		10/4/2016 3:59:27 PM	26	-65	15	27489	27530	27465	2750
K1	3	9.750	10/4/2016 4:04:16 PM	19.662	0.881	0.076	27462	29514	29887	2757
K1	4	10.180	10/4/2016 4:09:05 PM	19.401	0.851	0.056	27450	29539	29916	2754
ICV	5	10.490	10/4/2016 4:28:15 PM	0.970%	7.053%	7.507%	27481	29569	30110	2757
ICB	6	55.270	10/4/2016 4:33:03 PM	-.001%	0.020%	-.543%	27444	27457	27407	2744
HICV	7	51.970	10/4/2016 4:49:25 PM	2.801%	1.573%	-.433%	27471	55794	56398	2748
SRM1650	8	1.300	10/4/2016 4:54:13 PM	84.230%	5.976%	28.846%	27447	48805	48809	2750
MB	9	39.210	10/4/2016 4:59:02 PM	0.0%	0.031%	-.765%	27443	27465	27416	2744
SRM1650	10	1.100	10/4/2016 5:03:50 PM	84.454%	6.950%	23.864%	27438	45561	45564	2748
MB	11	81.920	10/4/2016 5:08:39 PM	0.004%	0.020%	-.320%	27450	27538	27492	2745
HICV	12	51.750	10/4/2016 5:13:57 PM	3.877%	1.799%	-.411%	27459	66485	67181	2747
162912205	13	16.490	10/5/2016 7:42:06 A	0.059%	9.736%	97.104%	27401	28920	30163	2871
162912205	14	19.720	10/5/2016 7:46:51 A	-1.502%	10.992	15.086%	27251	21782	23481	2751
162912206	15	20.950	10/5/2016 7:53:13 A	0.027%	-.489%	0.955%	27268	27441	27299	2731
162912206	16	20.960	10/5/2016 7:58:09 A	0.026%	-.282%	-.477%	27251	27398	27291	2727
162912207	17	16.580	10/5/2016 8:03:06 A	0.045%	-.290%	1.508%	27246	27458	27360	2729
CCV	18	10.080	10/5/2016 8:08:03 A	1.011%	1.223%	21.081%	27261	29459	29500	2746
CCB	19	63.540	10/5/2016 8:13:00 A	0.0%	-.099%	-.767%	27267	27274	27164	2725
162912207	20	18.930	10/5/2016 8:18:35 A	0.050%	-.267%	0.726%	27270	27513	27413	2731
162912205	21	19.250	10/5/2016 8:23:32 A	0.054%	-.237%	-.649%	27273	27514	27418	2729
162912205	22	18.890	10/5/2016 8:28:30 A	0.053%	-.222%	-.728%	27281	27513	27420	2729
162912208	23	20.420	10/5/2016 8:33:27 A	0.014%	-.145%	-1.959%	27284	27354	27271	2728
162912208	24	25.0	10/5/2016 8:38:25 A	0.013%	-.286%	-1.450%	27292	27376	27259	2729
162912209	25	24.020	10/5/2016 8:43:23 A	0.036%	-.098%	-1.717%	27300	27485	27407	2729
162912209	26	18.770	10/5/2016 8:48:23 A	0.058%	-.053%	-1.931%	27306	27535	27468	2730

Reported on 10/6/2016 8:10 AM by Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
162912210	27	17.820	10/5/2016 8:53:20 A	0.013%	-.131%	-2.104%	27307	27369	27291	2730
162912210	28	21.670	10/5/2016 8:58:17 A	0.009%	-.119%	-1.673%	27306	27361	27281	2730
CCV	29	10.320	10/5/2016 9:03:15 A	-.025%	-.203%	-3.513%	27309	27277	27201	2730
CCB	30	57.010	10/5/2016 9:08:13 A	0.0%	-.037%	-.548%	27312	27331	27255	2731
CCV	31	10.030	10/5/2016 9:13:12 A	1.027%	3.786%	22.059%	27327	29553	29802	2753
162911901	32	11.390	10/5/2016 12:03:57 P	0.317%	0.390%	22.059%	27329	28279	28256	2755
162911901	33	10.820	10/5/2016 12:08:56 P	0.280%	0.217%	4.506%	27276	27951	27911	2734
162911901D	34	11.460	10/5/2016 12:13:54 P	0.271%	0.065%	2.836%	27261	27939	27886	2731
162911901D	35	9.600	10/5/2016 12:19:11 P	0.415%	0.295%	4.167%	27258	28113	28077	2731
162911901MS	36	~~15.220~~ 13.33	10/5/2016 12:24:25 P	~~0.900%~~ 1.028%	0.794%	4.189%	27242	30003	30042	2732
162911901MS	37	15.220	10/5/2016 12:29:34 P	0.939%	0.859%	3.121%	27290	30152	30199	2735
162911901MS	38	9.720	10/5/2016 12:34:38 P	1.364%	1.966%	4.887%	27300	29963	30059	2736
162911901MS	39	10.950	10/5/2016 12:39:39 P	1.174%	2.094%	5.137%	27298	29890	30017	2737
162911902	40	7.250	10/5/2016 12:44:39 P	0.148%	0.170%	3.793%	27293	27572	27523	2734
162911902	41	11.170	10/5/2016 12:49:37 P	0.141%	0.144%	2.238%	27293	27668	27622	2734
CCV	42	10.100	10/5/2016 12:57:20 P	1.006%	2.344%	22.649%	27274	29480	29613	2748
CCB	43	65.560	10/5/2016 1:02:20 PM	0.0%	0.083%	-.439%	27294	27323	27308	2730
162911901D	44	12.840	10/5/2016 1:09:57 PM	0.291%	0.096%	4.770%	27303	28126	28077	2738
162911901D	45	13.850	10/5/2016 1:14:56 PM	0.270%	0.116%	3.700%	27305	28120	28074	2737
162911903	46	10.650	10/5/2016 1:20:13 PM	0.148%	0.116%	3.052%	27338	27719	27670	2739
162911903	47	15.930	10/5/2016 1:25:30 PM	0.181%	0.101%	3.610%	27283	27938	27892	2735
162911906	48	15.030	10/5/2016 1:30:43 PM	0.467%	0.033%	0.416%	27301	28717	28662	2733
162911906	49	10.450	10/5/2016 1:35:48 PM	0.181%	0.106%	0.598%	27327	27748	27698	2736
162911907	50	13.120	10/5/2016 1:40:50 PM	0.537%	0.132%	2.477%	27335	28779	28734	2739
162911907	51	15.460	10/5/2016 1:45:50 PM	0.449%	0.128%	2.830%	27333	28766	28723	2739
162911908	52	14.060	10/5/2016 1:50:49 PM	0.344%	0.114%	3.556%	27343	28372	28326	2741
162911908	53	~~14.060~~ 12.76	10/5/2016 1:55:48 PM	~~0.365%~~ .402%	0.149%	3.467%	27341	28425	28383	2740

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
162911908	53	14.060	10/5/2016 1:55:48 PM	0.365%	0.149%	3.467%	27341	28425	28383	2740
CCV	54	10.270	10/5/2016 2:19:20 PM	1.027%	2.749%	6.451%	27385	29536	29706	2746
CCB	55	63.730	10/5/2016 2:24:36 PM	-.003%	0.008%	0.667%	27361	27410	27355	2742
162911906	56	10.150	10/5/2016 2:31:40 PM	0.242%	0.134%	-1.108%	27336	27853	27805	2735
162911906	57	10.010	10/5/2016 2:36:40 PM	0.193%	0.505%	-.375%	27321	27742	27724	2734
162911911	58	22.820	10/5/2016 2:41:39 PM	0.231%	0.308%	2.465%	27316	28434	28432	2739
162911911	59	17.300	10/5/2016 2:46:38 PM	0.293%	0.192%	2.818%	27327	28400	28368	2739
162911912	60	13.820	10/5/2016 2:51:37 PM	0.073%	0.125%	0.271%	27325	27571	27526	2735
162911912	61	15.410	10/5/2016 2:56:36 PM	0.059%	0.056%	0.081%	27334	27559	27507	2736
162911913	62	13.820	10/5/2016 3:01:35 PM	-.017%	0.0%	-1.538%	27338	27323	27264	2735
162911913	63	13.750	10/5/2016 3:06:34 PM	0.098%	0.063%	0.636%	27339	27655	27603	2737
162911914	64	16.260	10/5/2016 3:11:33 PM	0.111%	0.015%	1.153%	27329	27743	27686	2737
162911914	65	14.750	10/5/2016 3:16:32 PM	0.107%	0.025%	1.017%	27323	27689	27633	2736
CCV	66	10.240	10/5/2016 3:22:36 PM	1.006%	3.384%	22.583%	27343	29577	29799	2755
CCB	67	96.0	10/5/2016 3:27:34 PM	-.001%	0.049%	-.221%	27336	27346	27325	2734
162911915	68	14.960	10/5/2016 3:33:54 PM	0.058%	-.082%	1.504%	27331	27566	27497	2737
162911915	69	16.670	10/5/2016 3:39:09 PM	0.056%	-.007%	1.500%	27322	27570	27510	2737
162911916	70	10.750	10/5/2016 3:44:08 PM	0.119%	0.206%	0.465%	27316	27617	27576	2734
162911916	71	14.650	10/5/2016 3:49:12 PM	0.110%	0.093%	2.048%	27324	27708	27660	2737
162911913	72	16.050	10/5/2016 3:54:15 PM	0.039%	0.077%	0.701%	27319	27499	27450	2735
162911913	73	18.840	10/5/2016 3:59:17 PM	0.043%	0.039%	0.796%	27319	27536	27483	2736
162912209	74	25.080	10/5/2016 4:04:18 PM	0.066%	0.069%	-.199%	27318	27683	27638	2734
162912209	75	25.170	10/5/2016 4:09:19 PM	0.034%	0.069%	-.397%	27323	27528	27483	2734
CCV	76	10.020	10/5/2016 4:14:19 PM	1.011%	2.104%	4.491%	27337	29389	29501	2740
CCB	77	67.320	10/5/2016 4:19:20 PM	0.0%	0.018%	-.204%	27332	27374	27325	2735

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
K1	1	10.090	10/5/2016 8:43:18 AM	13.152	41.259	2.051	1480	1870	4088	17304
BLANK	2		10/5/2016 8:48:22 AM	35	2595	592	1484	1547	1807	15440
0	3	10.090	10/5/2016 9:13:17 AM	-.016%	3.254%	1.134%	1481	1509	2714	15064
1000	4	10.120	10/5/2016 9:18:16 AM	0.147%	5.109%	1.076%	1481	1531	3356	15058
5000	5	9.990	10/5/2016 9:23:16 AM	0.443%	4.530%	0.957%	1484	1571	3184	15061
10000	6	10.170	10/5/2016 9:28:16 AM	0.786%	3.093%	0.0%	1485	1606	2765	14935
20000	7	10.210	10/5/2016 9:33:17 AM	1.892%	4.350%	1.223%	1485	1777	3362	15117
40000	8	10.470	10/5/2016 9:38:17 AM	3.567%	4.597%	0.960%	1486	2017	3725	15094
1000	9	10.080	10/5/2016 9:47:56 AM	0.205%	6.044%	0.498%	1482	1531	3660	14980
1000	10	10.120	10/5/2016 9:57:07 AM	0.070%	5.973%	-.028%	1484	1507	3620	14925
40000	11	10.480	10/5/2016 10:05:10 AM	2.629%	5.276%	1.192%	1484	1886	3830	15105
40000	12	10.270	10/5/2016 10:12:04 AM	1.941%	4.246%	1.169%	1484	1783	3342	15096
40000	13	10.400	10/5/2016 10:24:23 AM	4.087%	5.822%	0.007%	1484	2070	4186	14925
10000	14	10.140	10/5/2016 10:38:22 AM	1.067%	6.0%	1.218%	1484	1661	3787	15100
ICV	15	10.250	10/5/2016 10:46:43 AM	0.671%	3.641%	0.007%	1484	1591	2943	14931
ICB	16	71.810	10/5/2016 10:51:44 AM	-.002%	0.044%	-.010%	1485	1497	1723	14931
ICV	17	10.120	10/5/2016 10:56:45 AM	1.027%	5.665%	-.007%	1484	1638	3649	14928
HICV	18	50.600	10/5/2016 11:08:29 AM	4.034%	1.211%	0.159%	1484	4256	6396	15040
SRM1944	19	6.260	10/5/2016 11:15:23 AM	4.879%	11.821	0.758%	1486	1917	4477	15012
MB	20	65.740	10/5/2016 11:20:25 AM	0.001%	0.065%	-.013%	1487	1500	1765	14947
SRM1944	21	7.290	10/5/2016 11:25:26 AM	4.363%	0.965%	0.641%	1486	1934	2289	15010
MB	22	61.890	10/5/2016 11:30:27 AM	0.003%	0.007%	-.012%	1485	1500	1637	14926
162911901	23	9.010	10/5/2016 11:36:57 AM	2.601%	0.979%	0.503%	1484	1820	2234	14995
162911901	24	9.470	10/5/2016 11:41:59 AM	2.543%	0.828%	0.479%	1483	1828	2210	14987
162911902	25	11.010	10/5/2016 11:47:00 AM	2.803%	0.976%	0.583%	1484	1923	2400	15024
162911902	26	9.730	10/5/2016 11:52:01 AM	2.612%	0.852%	0.509%	1485	1848	2244	15007

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
162911903	27	9.700	10/5/2016 11:57:02 AM	3.052%	1.097%	0.655%	1483	1905	2379	15013
162911903	28	11.300	10/5/2016 12:02:22 PM	2.553%	0.833%	0.599%	1486	1898	2332	15048
CCV	29	10.140	10/5/2016 12:07:40 PM	1.012%	1.595%	0.385%	1485	1643	2299	14997
CCB	30	81.270	10/5/2016 12:12:50 PM	-.001%	-.018%	-.001%	1484	1496	1570	14923
162911901D	31	7.090	10/5/2016 12:20:35 PM	2.543%	0.644%	0.551%	1483	1745	2019	14975
162911901D	32	8.650	10/5/2016 12:25:33 PM	2.567%	0.637%	0.508%	1485	1804	2109	14998
162911901MS	33	11.590	10/5/2016 12:30:30 PM	3.656%	5.132%	0.572%	1484	2077	4159	15020
162911901MS	34	11.080	10/5/2016 12:35:27 PM	3.596%	5.407%	0.542%	1486	2045	4140	15036
162911901MSD	35	10.490	10/5/2016 12:40:24 PM	3.697%	5.853%	0.506%	1487	2031	4175	15036
162911901MSD	36	10.180	10/5/2016 12:45:20 PM	3.950%	6.099%	0.507%	1489	2052	4219	15055
162911906	37	9.480	10/5/2016 12:50:14 PM	2.268%	0.901%	0.368%	1491	1799	2203	15044
162911906	38	10.250	10/5/2016 12:55:29 PM	2.143%	0.668%	0.504%	1489	1805	2154	15047
162911907	39	13.200	10/5/2016 1:00:44 PM	2.211%	0.718%	0.492%	1488	1904	2339	15060
162911907	40	12.860	10/5/2016 1:05:41 PM	2.108%	0.683%	0.391%	1485	1871	2283	15007
CCV	41	10.120	10/5/2016 1:10:36 PM	1.040%	5.518%	0.076%	1484	1641	3603	14943
CCB	42	79.040	10/5/2016 1:15:30 PM	0.0%	-.003%	-.011%	1487	1499	1615	14940
162911908	43	9.500	10/5/2016 1:21:48 PM	2.027%	0.520%	0.345%	1483	1761	2047	14968
162911908	44	11.920	10/5/2016 1:26:45 PM	1.724%	0.465%	0.316%	1484	1780	2086	14979
162911911	45	13.300	10/5/2016 1:31:41 PM	1.375%	0.326%	0.257%	1483	1748	2015	14970
162911911	46	14.950	10/5/2016 1:36:38 PM	1.508%	0.366%	0.271%	1483	1806	2110	14980
162911912	47	19.120	10/5/2016 1:41:34 PM	1.292%	0.353%	0.234%	1483	1836	2182	14984
162911912	48	16.980	10/5/2016 1:46:29 PM	1.284%	0.354%	0.214%	1483	1796	2117	14974
162911913	49	13.910	10/5/2016 1:51:23 PM	2.341%	0.541%	0.376%	1484	1943	2314	14998
162911913	50	18.400	10/5/2016 1:56:16 PM	1.723%	0.461%	0.349%	1484	1933	2336	15015
162911914	51	12.070	10/5/2016 2:01:13 PM	1.590%	0.347%	0.278%	1483	1760	2022	14968
162911914	52	15.720	10/5/2016 2:06:09 PM	1.601%	0.432%	0.280%	1483	1842	2189	14980
CCV	53	10.0	10/5/2016 2:21:19 PM	1.012%	5.757%	0.230%	1482	1635	3654	14942

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
CCV	53	10.0	10/5/2016 2:21:19 PM	1.012%	5.757%	0.230%	1482	1635	3654	14942
CCB	54	68.490	10/5/2016 2:26:16 PM	-.002%	0.001%	-.013%	1485	1496	1622	14926
162911915	55	12.510	10/5/2016 2:40:15 PM	1.646%	0.436%	0.496%	1482	1781	2084	14992
162911915	56	14.720	10/5/2016 2:45:23 PM	1.396%	0.410%	0.299%	1482	1779	2101	14974
162911916	57	16.570	10/5/2016 2:50:31 PM	1.474%	0.379%	0.328%	1481	1831	2161	14972
162911916	58	14.400	10/5/2016 2:55:36 PM	1.426%	0.348%	0.204%	1483	1777	2066	14957
162911913	59	15.120	10/5/2016 3:00:39 PM	1.563%	0.402%	0.245%	1482	1819	2143	14958
162911913	60	16.700	10/5/2016 3:05:39 PM	1.331%	0.374%	0.242%	1482	1801	2130	14965
162912203	61	14.260	10/5/2016 3:15:42 PM	0.085%	-.007%	0.015%	1480	1511	1631	14892
162912203	62	16.230	10/5/2016 3:20:55 PM	0.058%	-.049%	0.034%	1482	1509	1606	14912
162912204	63	18.850	10/5/2016 3:26:07 PM	0.003%	-.132%	0.085%	1479	1496	1537	14901
162912204	64	24.430	10/5/2016 3:31:04 PM	0.008%	-.101%	-.020%	1481	1497	1539	14888
CCV	65	10.010	10/5/2016 3:36:00 PM	1.009%	1.807%	-.056%	1481	1630	2349	14892
CCB	66	82.850	10/5/2016 3:40:57 PM	-.002%	-.030%	-.015%	1480	1490	1532	14865
162912204D	67	19.410	10/5/2016 3:49:27 PM	0.020%	-.094%	0.007%	1479	1498	1562	14875
162912204D	68	22.380	10/5/2016 3:54:24 PM	0.016%	-.074%	0.006%	1479	1498	1567	14881
162912204MS	69	16.870	10/5/2016 3:59:21 PM	0.647%	2.866%	0.161%	1478	1643	3358	14911
162912204MS	70	19.470	10/5/2016 4:04:19 PM	0.561%	3.217%	0.029%	1481	1643	3828	14910
162958401	71	13.620	10/5/2016 4:09:17 PM	5.427%	0.937%	1.301%	1485	2519	3063	15193
162958401	72	9.950	10/5/2016 4:14:16 PM	6.139%	0.884%	1.459%	1483	2340	2753	15126
162958402	73	15.050	10/5/2016 4:19:15 PM	4.900%	0.891%	1.308%	1482	2516	3081	15189
162958402	74	9.960	10/5/2016 4:24:11 PM	4.889%	0.770%	1.212%	1481	2167	2543	15067
162958403	75	10.490	10/5/2016 4:29:07 PM	3.359%	0.415%	0.712%	1480	1979	2246	14993
162958403	76	12.980	10/5/2016 4:34:03 PM	3.202%	0.405%	0.656%	1480	2065	2362	15012
CCV	77	10.100	10/5/2016 4:38:58 PM	1.061%	0.917%	-.035%	1480	1638	2066	14885
CCB	78	82.660	10/5/2016 4:43:54 PM	0.001%	-.036%	-.015%	1480	1493	1518	14868
162958404	79	16.460	10/6/2016 7:35:18 AM	1.801%	0.230%	3.854%	1475	1979	2227	15749

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
162958404	79	16.460	10/6/2016 7:35:18 AM	1.801%	0.230%	3.854%	1475	1979	2227	15749
162958404	80	14.040	10/6/2016 7:40:09 AM	3.034%	0.252%	1.198%	1477	2088	2328	15095
162958405	81	14.510	10/6/2016 7:45:01 AM	1.977%	0.189%	0.457%	1476	1885	2099	14941
162958405	82	12.130	10/6/2016 7:49:52 AM	1.792%	0.021%	0.213%	1476	1786	1918	14887
162958406	83	14.300	10/6/2016 7:54:44 AM	1.169%	0.139%	0.239%	1476	1720	1909	14899
162958406	84	13.290	10/6/2016 7:59:36 AM	1.376%	0.245%	0.273%	1476	1741	1972	14904
162958404	85	16.340	10/6/2016 8:10:41 AM	2.415%	0.216%	0.235%	1476	2027	2266	14905
162958404	86	16.570	10/6/2016 8:15:33 AM	2.222%	0.187%	0.198%	1477	1991	2217	14907
CCV	87	10.340	10/6/2016 8:20:24 AM	1.269%	4.228%	0.796%	1478	1680	3242	14982
CCB	88	63.500	10/6/2016 8:25:17 AM	0.003%	-.020%	-.008%	1479	1495	1576	14872
CCV	89	10.140	10/6/2016 8:32:34 AM	0.886%	4.900%	0.998%	1478	1628	3386	15016

Sample Raw Data

Date of report	10/6/2016 8:11:40AM
User ID	Alpha Analytical

DATE & TIME	10/4/2016 3:16:09 PM	P_ID	100416CM
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	10.480	MODE	CHN

		SIGNALS			
		ZR	27463	AVERAGE RESULTS	
KC	19.189	NR	27503	KC	19.272
KH	1.072	CR	29527	KH	0.662
KN	-.002	HR	30039	KN	0.133
BLANKS	13 -53 43				
K FACTORS	1.0% 5.03% 11.67%				
FILL TIME	26 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	10/4/2016 3:59:27 PM	P_ID	100416CM
RUN TYPE	BLANK	USER ID	alpha
		MODE	CHN

		SIGNALS			
		ZR	27489	AVERAGE RESULTS	
CARBON	26	NR	27504	CARBON	19
HYDROGEN	-65	CR	27530	HYDROGEN	-59
NITROGEN	15	HR	27465	NITROGEN	29
FILL TIME	26 Seconds				

DATE & TIME	10/4/2016 4:04:16 PM	P_ID	100416CM
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	9.750	MODE	CHN

		SIGNALS			
		ZR	27462	AVERAGE RESULTS	
KC	19.662	NR	27578	KC	19.467
KH	0.881	CR	29514	KH	0.771
KN	0.076	HR	29887	KN	0.104
BLANKS	19 -59 29				
K FACTORS	1.0% 5.03% 11.67%				
FILL TIME	26 Seconds				

DATE & TIME	10/4/2016 4:09:05 PM	P_ID	100416CM
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	10.180	MODE	CHN

		SIGNALS			
		ZR	27450	AVERAGE RESULTS	
KC	19.401	NR	27545	KC	19.434
KH	0.851	CR	29539	KH	0.811
KN	0.056	HR	29916	KN	0.080
BLANKS	19 -59 29				
K FACTORS	1.0% 5.03% 11.67%				
FILL TIME	25 Seconds				

DATE & TIME	10/4/2016 4:28:15 PM	P_ID	100416CM
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.490	MODE	CHN

		SIGNALS	
		ZR	27481
CARBON	0.970%	NR	27573
HYDROGEN	7.053%	CR	29569
NITROGEN	7.507%	HR	30110

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 25 Seconds

DATE & TIME	10/4/2016 4:33:03 PM	P_ID	100416CM
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	55.270	MODE	CHN

		SIGNALS	
		ZR	27444
CARBON	-.001%	NR	27449
HYDROGEN	0.020%	CR	27457
NITROGEN	-.543%	HR	27407

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 25 Seconds

DATE & TIME	10/4/2016 4:49:25 PM	P_ID	100416CM
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.970	MODE	CHN

		SIGNALS	
		ZR	27471
CARBON	2.801%	NR	27482
HYDROGEN	1.573%	CR	55794
NITROGEN	-.433%	HR	56398

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 27 Seconds

DATE & TIME	10/4/2016 4:54:13 PM	P_ID	100416CM
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	1.300	MODE	CHN

		SIGNALS	
		ZR	27447
CARBON	84.230%	NR	27506
HYDROGEN	5.976%	CR	48805
NITROGEN	28.846%	HR	48809

BLANKS	19	-59	29

K FACTORS	19.434	0.811	0.080
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	25 Seconds		

DATE & TIME	10/4/2016 4:59:02 PM	P_ID	100416CM
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	39.210	MODE	CHN

		SIGNALS	
		ZR	27443
CARBON	0.0%	NR	27448
HYDROGEN	0.031%	CR	27465
NITROGEN	-.765%	HR	27416
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	25 Seconds		

DATE & TIME	10/4/2016 5:03:50 PM	P_ID	100416CM
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	1.100	MODE	CHN

		SIGNALS	
		ZR	27438
CARBON	84.454%	NR	27488
HYDROGEN	6.950%	CR	45561
NITROGEN	23.864%	HR	45564
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	25 Seconds		

DATE & TIME	10/4/2016 5:08:39 PM	P_ID	100416CM
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	81.920	MODE	CHN

		SIGNALS	
		ZR	27450
CARBON	0.004%	NR	27458
HYDROGEN	0.020%	CR	27538
NITROGEN	-.320%	HR	27492
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	25 Seconds		

DATE & TIME	10/4/2016 5:13:57 PM	P_ID	100416CM
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.750	MODE	CHN

				SIGNALS	
				ZR	27459
CARBON	3.877%			NR	27471
HYDROGEN	1.799%			CR	66485
NITROGEN	-.411%			HR	67181
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	28 Seconds				

DATE & TIME	10/5/2016 7:42:06 AM	P_ID	100416CM
SAMPLE ID	162912205	USER ID	alpha
WEIGHT (mg)	16.490	MODE	CHN

				SIGNALS	
				ZR	27401
CARBON	0.059%			NR	28711
HYDROGEN	9.736%			CR	28920
NITROGEN	97.104%			HR	30163
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	20 Seconds				

DATE & TIME	10/5/2016 7:46:51 AM	P_ID	100416CM
SAMPLE ID	162912205	USER ID	alpha
WEIGHT (mg)	19.720	MODE	CHN

				SIGNALS	
				ZR	27251
CARBON	-1.502%			NR	27518
HYDROGEN	10.992%			CR	21782
NITROGEN	15.086%			HR	23481
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	21 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	10/5/2016 7:53:13 AM	P_ID	100416CM
SAMPLE ID	162912206	USER ID	alpha
WEIGHT (mg)	20.950	MODE	CHN

				SIGNALS	
				ZR	27268
CARBON	0.027%			NR	27313
HYDROGEN	-.489%			CR	27441
NITROGEN	0.955%			HR	27299
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	33 Seconds		

DATE & TIME	10/5/2016 7:58:09 AM	P_ID	100416CM
SAMPLE ID	162912206	USER ID	alpha
WEIGHT (mg)	20.960	MODE	CHN

				SIGNALS	
				ZR	27251
CARBON	0.026%			NR	27272
HYDROGEN	-.282%			CR	27398
NITROGEN	-.477%			HR	27291
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	33 Seconds				

DATE & TIME	10/5/2016 8:03:06 AM	P_ID	100416CM
SAMPLE ID	162912207	USER ID	alpha
WEIGHT (mg)	16.580	MODE	CHN

				SIGNALS	
				ZR	27246
CARBON	0.045%			NR	27295
HYDROGEN	-.290%			CR	27458
NITROGEN	1.508%			HR	27360
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	33 Seconds				

DATE & TIME	10/5/2016 8:08:03 AM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.080	MODE	CHN

				SIGNALS	
				ZR	27261
CARBON	1.011%			NR	27460
HYDROGEN	1.223%			CR	29459
NITROGEN	21.081%			HR	29500
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	33 Seconds				

DATE & TIME	10/5/2016 8:13:00 AM	P_ID	100416CM
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	63.540	MODE	CHN

				SIGNALS	
				ZR	27267

CARBON	0.0%			NR	27257
HYDROGEN	-.099%			CR	27274
NITROGEN	-.767%			HR	27164
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	34 Seconds				

DATE & TIME	10/5/2016 8:18:35 AM	P_ID	100416CM
SAMPLE ID	162912207	USER ID	alpha
WEIGHT (mg)	18.930	MODE	CHN

SIGNALS

				ZR	27270
CARBON	0.050%			NR	27310
HYDROGEN	-.267%			CR	27513
NITROGEN	0.726%			HR	27413
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	34 Seconds				

DATE & TIME	10/5/2016 8:23:32 AM	P_ID	100416CM
SAMPLE ID	162912205	USER ID	alpha
WEIGHT (mg)	19.250	MODE	CHN

SIGNALS

				ZR	27273
CARBON	0.054%			NR	27292
HYDROGEN	-.237%			CR	27514
NITROGEN	-.649%			HR	27418
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	34 Seconds				

DATE & TIME	10/5/2016 8:28:30 AM	P_ID	100416CM
SAMPLE ID	162912205	USER ID	alpha
WEIGHT (mg)	18.890	MODE	CHN

SIGNALS

				ZR	27281
CARBON	0.053%			NR	27299
HYDROGEN	-.222%			CR	27513
NITROGEN	-.728%			HR	27420
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	34 Seconds				

DATE & TIME	10/5/2016 8:33:27 AM	P_ID	100416CM
SAMPLE ID	162912208	USER ID	alpha
WEIGHT (mg)	20.420	MODE	CHN

				SIGNALS	
				ZR	27284
CARBON	0.014%			NR	27281
HYDROGEN	-.145%			CR	27354
NITROGEN	-1.959%			HR	27271
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	34 Seconds				

DATE & TIME	10/5/2016 8:38:25 AM	P_ID	100416CM
SAMPLE ID	162912208	USER ID	alpha
WEIGHT (mg)	25.0	MODE	CHN

				SIGNALS	
				ZR	27292
CARBON	0.013%			NR	27292
HYDROGEN	-.286%			CR	27376
NITROGEN	-1.450%			HR	27259
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	34 Seconds				

DATE & TIME	10/5/2016 8:43:23 AM	P_ID	100416CM
SAMPLE ID	162912209	USER ID	alpha
WEIGHT (mg)	24.020	MODE	CHN

				SIGNALS	
				ZR	27300
CARBON	0.036%			NR	27296
HYDROGEN	-.098%			CR	27485
NITROGEN	-1.717%			HR	27407
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 8:48:23 AM	P_ID	100416CM
SAMPLE ID	162912209	USER ID	alpha
WEIGHT (mg)	18.770	MODE	CHN

				SIGNALS	
				ZR	27306
CARBON	0.058%			NR	27306
HYDROGEN	-.053%			CR	27535
NITROGEN	-1.931%			HR	27468
BLANKS	19	-59	29		

K FACTORS	19.434	0.811	0.080
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	36 Seconds		

DATE & TIME	10/5/2016 8:53:20 AM	P_ID	100416CM
SAMPLE ID	162912210	USER ID	alpha
WEIGHT (mg)	17.820	MODE	CHN

		SIGNALS	
		ZR	27307
CARBON	0.013%	NR	27306
HYDROGEN	-.131%	CR	27369
NITROGEN	-2.104%	HR	27291
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	34 Seconds		

DATE & TIME	10/5/2016 8:58:17 AM	P_ID	100416CM
SAMPLE ID	162912210	USER ID	alpha
WEIGHT (mg)	21.670	MODE	CHN

		SIGNALS	
		ZR	27306
CARBON	0.009%	NR	27306
HYDROGEN	-.119%	CR	27361
NITROGEN	-1.673%	HR	27281
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	34 Seconds		

DATE & TIME	10/5/2016 9:03:15 AM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.320	MODE	CHN

		SIGNALS	
		ZR	27309
CARBON	-.025%	NR	27309
HYDROGEN	-.203%	CR	27277
NITROGEN	-3.513%	HR	27201
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	34 Seconds		

DATE & TIME	10/5/2016 9:08:13 AM	P_ID	100416CM
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	57.010	MODE	CHN

				SIGNALS	
				ZR	27312
CARBON	0.0%			NR	27316
HYDROGEN	-.037%			CR	27331
NITROGEN	-.548%			HR	27255
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 9:13:12 AM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.030	MODE	CHN

				SIGNALS	
				ZR	27327
CARBON	1.027%			NR	27533
HYDROGEN	3.786%			CR	29553
NITROGEN	22.059%			HR	29802
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 12:03:57 PM	P_ID	100416CM
SAMPLE ID	162911901	USER ID	alpha
WEIGHT (mg)	11.390	MODE	CHN

				SIGNALS	
				ZR	27329
CARBON	0.317%			NR	27559
HYDROGEN	0.390%			CR	28279
NITROGEN	22.059%			HR	28256
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 12:08:56 PM	P_ID	100416CM
SAMPLE ID	162911901	USER ID	alpha
WEIGHT (mg)	10.820	MODE	CHN

				SIGNALS	
				ZR	27276
CARBON	0.280%			NR	27344
HYDROGEN	0.217%			CR	27951
NITROGEN	4.506%			HR	27911
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 12:13:54 PM	P_ID	100416CM
SAMPLE ID	162911901D	USER ID	alpha
WEIGHT (mg)	11.460	MODE	CHN

		SIGNALS	
		ZR	27261
CARBON	0.271%	NR	27316
HYDROGEN	0.065%	CR	27939
NITROGEN	2.836%	HR	27886

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 35 Seconds

DATE & TIME	10/5/2016 12:19:11 PM	P_ID	100416CM
SAMPLE ID	162911901D	USER ID	alpha
WEIGHT (mg)	9.600	MODE	CHN

		SIGNALS	
		ZR	27258
CARBON	0.415%	NR	27319
HYDROGEN	0.295%	CR	28113
NITROGEN	4.167%	HR	28077

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	10/5/2016 12:24:25 PM	P_ID	100416CM
SAMPLE ID	162911901MS	USER ID	alpha
WEIGHT (mg)	~~15.220~~ 13.33	MODE	CHN

		SIGNALS	
		ZR	27242
CARBON	~~0.900%~~ 1.028%	NR	27322
HYDROGEN	0.794%	CR	30003
NITROGEN	4.189%	HR	30042

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 51 Seconds

DATE & TIME	10/5/2016 12:29:34 PM	P_ID	100416CM
SAMPLE ID	162911901MS	USER ID	alpha
WEIGHT (mg)	15.220	MODE	CHN

		SIGNALS	
		ZR	27290
CARBON	0.939%	NR	27357
HYDROGEN	0.859%	CR	30152
NITROGEN	3.121%	HR	30199

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 46 Seconds

DATE & TIME	10/5/2016 12:34:38 PM	P_ID	100416CM
SAMPLE ID	162911901MSD	USER ID	alpha
WEIGHT (mg)	9.720	MODE	CHN

		SIGNALS	
		ZR	27300
CARBON	1.364%	NR	27367
HYDROGEN	1.966%	CR	29963
NITROGEN	4.887%	HR	30059

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

DATE & TIME	10/5/2016 12:39:39 PM	P_ID	100416CM
SAMPLE ID	162911901MSD	USER ID	alpha
WEIGHT (mg)	10.950	MODE	CHN

		SIGNALS	
		ZR	27298
CARBON	1.174%	NR	27372
HYDROGEN	2.094%	CR	29890
NITROGEN	5.137%	HR	30017

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 38 Seconds

DATE & TIME	10/5/2016 12:44:39 PM	P_ID	100416CM
SAMPLE ID	162911902	USER ID	alpha
WEIGHT (mg)	7.250	MODE	CHN

		SIGNALS	
		ZR	27293
CARBON	0.148%	NR	27344
HYDROGEN	0.170%	CR	27572
NITROGEN	3.793%	HR	27523

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 36 Seconds

DATE & TIME	10/5/2016 12:49:37 PM	P_ID	100416CM
SAMPLE ID	162911902	USER ID	alpha
WEIGHT (mg)	11.170	MODE	CHN

				SIGNALS	
				ZR	27293
CARBON	0.141%			NR	27342
HYDROGEN	0.144%			CR	27668
NITROGEN	2.238%			HR	27622
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 12:57:20 PM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.100	MODE	CHN

				SIGNALS	
				ZR	27274
CARBON	1.006%			NR	27486
HYDROGEN	2.344%			CR	29480
NITROGEN	22.649%			HR	29613
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 1:02:20 PM	P_ID	100416CM
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	65.560	MODE	CHN

				SIGNALS	
				ZR	27294
CARBON	0.0%			NR	27300
HYDROGEN	0.083%			CR	27323
NITROGEN	-.439%			HR	27308
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 1:09:57 PM	P_ID	100416CM
SAMPLE ID	162911901D	USER ID	alpha
WEIGHT (mg)	12.840	MODE	CHN

				SIGNALS	
				ZR	27303
CARBON	0.291%			NR	27381
HYDROGEN	0.096%			CR	28126
NITROGEN	4.770%			HR	28077
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 1:14:56 PM	P_ID	100416CM
SAMPLE ID	162911901D	USER ID	alpha
WEIGHT (mg)	13.850	MODE	CHN

		SIGNALS	
		ZR	27305
CARBON	0.270%	NR	27375
HYDROGEN	0.116%	CR	28120
NITROGEN	3.700%	HR	28074

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	35 Seconds		

DATE & TIME	10/5/2016 1:20:13 PM	P_ID	100416CM
SAMPLE ID	162911903	USER ID	alpha
WEIGHT (mg)	10.650	MODE	CHN

		SIGNALS	
		ZR	27338
CARBON	0.148%	NR	27393
HYDROGEN	0.116%	CR	27719
NITROGEN	3.052%	HR	27670

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	10/5/2016 1:25:30 PM	P_ID	100416CM
SAMPLE ID	162911903	USER ID	alpha
WEIGHT (mg)	15.930	MODE	CHN

		SIGNALS	
		ZR	27283
CARBON	0.181%	NR	27358
HYDROGEN	0.101%	CR	27938
NITROGEN	3.610%	HR	27892

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	10/5/2016 1:30:43 PM	P_ID	100416CM
SAMPLE ID	162911906	USER ID	alpha
WEIGHT (mg)	15.030	MODE	CHN

		SIGNALS	
		ZR	27301
CARBON	0.467%	NR	27335
HYDROGEN	0.033%	CR	28717
NITROGEN	0.416%	HR	28662

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	50 Seconds		

DATE & TIME	10/5/2016 1:35:48 PM	P_ID	100416CM
SAMPLE ID	162911906	USER ID	alpha
WEIGHT (mg)	10.450	MODE	CHN

		SIGNALS	
		ZR	27327
CARBON	0.181%	NR	27361
HYDROGEN	0.106%	CR	27748
NITROGEN	0.598%	HR	27698
BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	41 Seconds		

DATE & TIME	10/5/2016 1:40:50 PM	P_ID	100416CM
SAMPLE ID	162911907	USER ID	alpha
WEIGHT (mg)	13.120	MODE	CHN

		SIGNALS	
		ZR	27335
CARBON	0.537%	NR	27390
HYDROGEN	0.132%	CR	28779
NITROGEN	2.477%	HR	28734
BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	38 Seconds		

DATE & TIME	10/5/2016 1:45:50 PM	P_ID	100416CM
SAMPLE ID	162911907	USER ID	alpha
WEIGHT (mg)	15.460	MODE	CHN

		SIGNALS	
		ZR	27333
CARBON	0.449%	NR	27397
HYDROGEN	0.128%	CR	28766
NITROGEN	2.830%	HR	28723
BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	37 Seconds		

DATE & TIME	10/5/2016 1:50:49 PM	P_ID	100416CM
SAMPLE ID	162911908	USER ID	alpha
WEIGHT (mg)	14.060	MODE	CHN

				SIGNALS	
				ZR	27343
CARBON	0.344%			NR	27412
HYDROGEN	0.114%			CR	28372
NITROGEN	3.556%			HR	28326
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 1:55:48 PM	P_ID	100416CM
SAMPLE ID	162911908	USER ID	alpha
WEIGHT (mg)	~~14.060~~ 12.76	MODE	CHN

				SIGNALS	
				ZR	27341
CARBON	~~0.365%~~ .402%			NR	27409
HYDROGEN	0.149%			CR	28425
NITROGEN	3.467%			HR	28383
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 2:19:20 PM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.270	MODE	CHN

				SIGNALS	
				ZR	27385
CARBON	1.027%			NR	27467
HYDROGEN	2.749%			CR	29536
NITROGEN	6.451%			HR	29706
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	50 Seconds				

DATE & TIME	10/5/2016 2:24:36 PM	P_ID	100416CM
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	63.730	MODE	CHN

				SIGNALS	
				ZR	27361
CARBON	-.003%			NR	27424
HYDROGEN	0.008%			CR	27410
NITROGEN	0.667%			HR	27355
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	10/5/2016 2:31:40 PM	P_ID	100416CM
SAMPLE ID	162911906	USER ID	alpha
WEIGHT (mg)	10.150	MODE	CHN

		SIGNALS	
		ZR	27336
CARBON	0.242%	NR	27356
HYDROGEN	0.134%	CR	27853
NITROGEN	-1.108%	HR	27805

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME	36 Seconds

DATE & TIME	10/5/2016 2:36:40 PM	P_ID	100416CM
SAMPLE ID	162911906	USER ID	alpha
WEIGHT (mg)	10.010	MODE	CHN

		SIGNALS	
		ZR	27321
CARBON	0.193%	NR	27347
HYDROGEN	0.505%	CR	27742
NITROGEN	-.375%	HR	27724

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME	36 Seconds

DATE & TIME	10/5/2016 2:41:39 PM	P_ID	100416CM
SAMPLE ID	162911911	USER ID	alpha
WEIGHT (mg)	22.820	MODE	CHN

		SIGNALS	
		ZR	27316
CARBON	0.231%	NR	27390
HYDROGEN	0.308%	CR	28434
NITROGEN	2.465%	HR	28432

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME	36 Seconds

DATE & TIME	10/5/2016 2:46:38 PM	P_ID	100416CM
SAMPLE ID	162911911	USER ID	alpha
WEIGHT (mg)	17.300	MODE	CHN

		SIGNALS	
		ZR	27327
CARBON	0.293%	NR	27395
HYDROGEN	0.192%	CR	28400
NITROGEN	2.818%	HR	28368

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 36 Seconds

DATE & TIME	10/5/2016 2:51:37 PM	P_ID	100416CM
SAMPLE ID	162911912	USER ID	alpha
WEIGHT (mg)	13.820	MODE	CHN

		SIGNALS	
		ZR	27325
CARBON	0.073%	NR	27357
HYDROGEN	0.125%	CR	27571
NITROGEN	0.271%	HR	27526
BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 36 Seconds

DATE & TIME	10/5/2016 2:56:36 PM	P_ID	100416CM
SAMPLE ID	162911912	USER ID	alpha
WEIGHT (mg)	15.410	MODE	CHN

		SIGNALS	
		ZR	27334
CARBON	0.059%	NR	27364
HYDROGEN	0.056%	CR	27559
NITROGEN	0.081%	HR	27507
BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 36 Seconds

DATE & TIME	10/5/2016 3:01:35 PM	P_ID	100416CM
SAMPLE ID	162911913	USER ID	alpha
WEIGHT (mg)	13.820	MODE	CHN

		SIGNALS	
		ZR	27338
CARBON	-.017%	NR	27350
HYDROGEN	0.0%	CR	27323
NITROGEN	-1.538%	HR	27264
BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 36 Seconds

DATE & TIME	10/5/2016 3:06:34 PM	P_ID	100416CM
SAMPLE ID	162911913	USER ID	alpha
WEIGHT (mg)	13.750	MODE	CHN

				SIGNALS	
				ZR	27339
CARBON	0.098%			NR	27375
HYDROGEN	0.063%			CR	27655
NITROGEN	0.636%			HR	27603
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 3:11:33 PM	P_ID	100416CM
SAMPLE ID	162911914	USER ID	alpha
WEIGHT (mg)	16.260	MODE	CHN

				SIGNALS	
				ZR	27329
CARBON	0.111%			NR	27373
HYDROGEN	0.015%			CR	27743
NITROGEN	1.153%			HR	27686
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 3:16:32 PM	P_ID	100416CM
SAMPLE ID	162911914	USER ID	alpha
WEIGHT (mg)	14.750	MODE	CHN

				SIGNALS	
				ZR	27323
CARBON	0.107%			NR	27364
HYDROGEN	0.025%			CR	27689
NITROGEN	1.017%			HR	27633
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 3:22:36 PM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.240	MODE	CHN

				SIGNALS	
				ZR	27343
CARBON	1.006%			NR	27557
HYDROGEN	3.384%			CR	29577
NITROGEN	22.583%			HR	29799
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 3:27:34 PM	P_ID	100416CM
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	96.0	MODE	CHN

				SIGNALS	
				ZR	27336
CARBON	-.001%			NR	27348
HYDROGEN	0.049%			CR	27346
NITROGEN	-.221%			HR	27325
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	36 Seconds				

DATE & TIME	10/5/2016 3:33:54 PM	P_ID	100416CM
SAMPLE ID	162911915	USER ID	alpha
WEIGHT (mg)	14.960	MODE	CHN

				SIGNALS	
				ZR	27331
CARBON	0.058%			NR	27378
HYDROGEN	-.082%			CR	27566
NITROGEN	1.504%			HR	27497
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	47 Seconds				

DATE & TIME	10/5/2016 3:39:09 PM	P_ID	100416CM
SAMPLE ID	162911915	USER ID	alpha
WEIGHT (mg)	16.670	MODE	CHN

				SIGNALS	
				ZR	27322
CARBON	0.056%			NR	27371
HYDROGEN	-.007%			CR	27570
NITROGEN	1.500%			HR	27510
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	10/5/2016 3:44:08 PM	P_ID	100416CM
SAMPLE ID	162911916	USER ID	alpha
WEIGHT (mg)	10.750	MODE	CHN

		SIGNALS	
		ZR	27316
CARBON	0.119%	NR	27349
HYDROGEN	0.206%	CR	27617
NITROGEN	0.465%	HR	27576

BLANKS	19	-59	29
K FACTORS	19.434	0.811	0.080

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 36 Seconds

DATE & TIME	10/5/2016 3:49:12 PM	P_ID	100416CM
SAMPLE ID	162911916	USER ID	alpha
WEIGHT (mg)	14.650	MODE	CHN

		SIGNALS	
		ZR	27324
CARBON	0.110%	NR	27377
HYDROGEN	0.093%	CR	27708
NITROGEN	2.048%	HR	27660
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

DATE & TIME	10/5/2016 3:54:15 PM	P_ID	100416CM
SAMPLE ID	162911913	USER ID	alpha
WEIGHT (mg)	16.050	MODE	CHN

		SIGNALS	
		ZR	27319
CARBON	0.039%	NR	27357
HYDROGEN	0.077%	CR	27499
NITROGEN	0.701%	HR	27450
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

DATE & TIME	10/5/2016 3:59:17 PM	P_ID	100416CM
SAMPLE ID	162911913	USER ID	alpha
WEIGHT (mg)	18.840	MODE	CHN

		SIGNALS	
		ZR	27319
CARBON	0.043%	NR	27360
HYDROGEN	0.039%	CR	27536
NITROGEN	0.796%	HR	27483
BLANKS	19 -59 29		
K FACTORS	19.434 0.811 0.080		

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 39 Seconds

DATE & TIME	10/5/2016 4:04:18 PM	P_ID	100416CM
SAMPLE ID	162912209	USER ID	alpha
WEIGHT (mg)	25.080	MODE	CHN

				SIGNALS	
				ZR	27318
CARBON	0.066%			NR	27343
HYDROGEN	0.069%			CR	27683
NITROGEN	-.199%			HR	27638
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 4:09:19 PM	P_ID	100416CM
SAMPLE ID	162912209	USER ID	alpha
WEIGHT (mg)	25.170	MODE	CHN

				SIGNALS	
				ZR	27323
CARBON	0.034%			NR	27344
HYDROGEN	0.069%			CR	27528
NITROGEN	-.397%			HR	27483
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	37 Seconds				

DATE & TIME	10/5/2016 4:14:19 PM	P_ID	100416CM
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.020	MODE	CHN

				SIGNALS	
				ZR	27337
CARBON	1.011%			NR	27402
HYDROGEN	2.104%			CR	29389
NITROGEN	4.491%			HR	29501
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	37 Seconds				

DATE & TIME	10/5/2016 4:19:20 PM	P_ID	100416CM
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	67.320	MODE	CHN

				SIGNALS	
				ZR	27332
CARBON	0.0%			NR	27350
HYDROGEN	0.018%			CR	27374
NITROGEN	-.204%			HR	27325
BLANKS	19	-59	29		
K FACTORS	19.434	0.811	0.080		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	37 Seconds				

Date of report	10/6/2016 8:45:52AM
User ID	mansfield_toc1

DATE & TIME	10/5/2016 8:43:18 AM	P_ID	100516AR
RUN TYPE	K1	USER ID	mansfield_toc1
WEIGHT (mg)	10.090	MODE	CHN

				SIGNALS		
				ZR	14806	AVERAGE RESULTS
KC	13.152			NR	17304	KC 13.456
KH	41.259			CR	18706	KH 32.916
KN	2.051			HR	40882	KN 1.433
BLANKS	75	1236	83			
K FACTORS	1.0%	5.03%	11.67%			
FILL TIME	49 Seconds					

DATE & TIME	10/5/2016 8:48:22 AM	P_ID	100516AR
RUN TYPE	BLANK	USER ID	mansfield_toc1
		MODE	CHN

		SIGNALS			
		ZR	14848	AVERAGE RESULTS	
CARBON	35	NR	15440	CARBON	55
HYDROGEN	2595	CR	15475	HYDROGEN	1236
NITROGEN	592	HR	18070	NITROGEN	83
FILL TIME	46 Seconds				

NUMBER	MESSAGE
16	HYDROGEN BLANK OUT OF TOLERANCE

DATE & TIME	10/5/2016 9:13:17 AM	P_ID	100516AR
SAMPLE ID	0	USER ID	mansfield_toc1
WEIGHT (mg)	10.090	MODE	CHN

				SIGNALS	
				ZR	14817
CARBON	-.016%			NR	15064
HYDROGEN	3.254%			CR	15097
NITROGEN	1.134%			HR	27141
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	10/5/2016 9:18:16 AM	P_ID	100516AR
SAMPLE ID	1000	USER ID	mansfield_toc1
WEIGHT (mg)	10.120	MODE	CHN

				SIGNALS	
				ZR	14819
CARBON	0.147%			NR	15058
HYDROGEN	5.109%			CR	15313
NITROGEN	1.076%			HR	33567
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	41 Seconds		

DATE & TIME	10/5/2016 9:23:16 AM	P_ID	100516AR
SAMPLE ID	5000	USER ID	mansfield_toc1
WEIGHT (mg)	9.990	MODE	CHN

				SIGNALS	
				ZR	14841
CARBON	0.443%			NR	15061
HYDROGEN	4.530%			CR	15711
NITROGEN	0.957%			HR	31842
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	41 Seconds				

DATE & TIME	10/5/2016 9:28:16 AM	P_ID	100516AR
SAMPLE ID	10000	USER ID	mansfield_toc1
WEIGHT (mg)	10.170	MODE	CHN

				SIGNALS	
				ZR	14852
CARBON	0.786%			NR	14935
HYDROGEN	3.093%			CR	16065
NITROGEN	0.0%			HR	27655
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	10/5/2016 9:33:17 AM	P_ID	100516AR
SAMPLE ID	20000	USER ID	mansfield_toc1
WEIGHT (mg)	10.210	MODE	CHN

				SIGNALS	
				ZR	14855
CARBON	1.892%			NR	15117
HYDROGEN	4.350%			CR	17772
NITROGEN	1.223%			HR	33628
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	10/5/2016 9:38:17 AM	P_ID	100516AR
SAMPLE ID	40000	USER ID	mansfield_toc1
WEIGHT (mg)	10.470	MODE	CHN

				SIGNALS	
				ZR	14867

CARBON	3.567%	NR	15094
HYDROGEN	4.597%	CR	20175
NITROGEN	0.960%	HR	37254
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	42 Seconds		

DATE & TIME	10/5/2016 9:47:56 AM	P_ID	100516AR
SAMPLE ID	1000	USER ID	mansfield_toc1
WEIGHT (mg)	10.080	MODE	CHN

SIGNALS

		ZR	14825
CARBON	0.205%	NR	14980
HYDROGEN	6.044%	CR	15313
NITROGEN	0.498%	HR	36604
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	42 Seconds		

DATE & TIME	10/5/2016 9:57:07 AM	P_ID	100516AR
SAMPLE ID	1000	USER ID	mansfield_toc1
WEIGHT (mg)	10.120	MODE	CHN

SIGNALS

		ZR	14846
CARBON	0.070%	NR	14925
HYDROGEN	5.973%	CR	15075
NITROGEN	-.028%	HR	36209
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 10:05:10 AM	P_ID	100516AR
SAMPLE ID	40000	USER ID	mansfield_toc1
WEIGHT (mg)	10.480	MODE	CHN

SIGNALS

		ZR	14843
CARBON	2.629%	NR	15105
HYDROGEN	5.276%	CR	18867
NITROGEN	1.192%	HR	38303
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 10:12:04 AM	P_ID	100516AR
SAMPLE ID	40000	USER ID	mansfield_toc1
WEIGHT (mg)	10.270	MODE	CHN

		SIGNALS	
		ZR	14841
CARBON	1.941%	NR	15096
HYDROGEN	4.246%	CR	17834
NITROGEN	1.169%	HR	33425
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 42 Seconds

DATE & TIME	10/5/2016 10:24:23 AM	P_ID	100516AR
SAMPLE ID	40000	USER ID	mansfield_toc1
WEIGHT (mg)	10.400	MODE	CHN

		SIGNALS	
		ZR	14841
CARBON	4.087%	NR	14925
HYDROGEN	5.822%	CR	20700
NITROGEN	0.007%	HR	41867
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 43 Seconds

DATE & TIME	10/5/2016 10:38:22 AM	P_ID	100516AR
SAMPLE ID	10000	USER ID	mansfield_toc1
WEIGHT (mg)	10.140	MODE	CHN

		SIGNALS	
		ZR	14840
CARBON	1.067%	NR	15100
HYDROGEN	6.0%	CR	16611
NITROGEN	1.218%	HR	37872
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 44 Seconds

DATE & TIME	10/5/2016 10:46:43 AM	P_ID	100516AR
SAMPLE ID	ICV	USER ID	mansfield_toc1
WEIGHT (mg)	10.250	MODE	CHN

		SIGNALS	
		ZR	14847
CARBON	0.671%	NR	14931
HYDROGEN	3.641%	CR	15911
NITROGEN	0.007%	HR	29431
BLANKS	55 1236 83		

K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 10:51:44 AM	P_ID	100516AR
SAMPLE ID	ICB	USER ID	mansfield_toc1
WEIGHT (mg)	71.810	MODE	CHN

		SIGNALS	
		ZR	14858
CARBON	-.002%	NR	14931
HYDROGEN	0.044%	CR	14971
NITROGEN	-.010%	HR	17239
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 10:56:45 AM	P_ID	100516AR
SAMPLE ID	ICV	USER ID	mansfield_toc1
WEIGHT (mg)	10.120	MODE	CHN

		SIGNALS	
		ZR	14846
CARBON	1.027%	NR	14928
HYDROGEN	5.665%	CR	16382
NITROGEN	-.007%	HR	36490
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 11:08:29 AM	P_ID	100516AR
SAMPLE ID	HICV	USER ID	mansfield_toc1
WEIGHT (mg)	50.600	MODE	CHN

		SIGNALS	
		ZR	14842
CARBON	4.034%	NR	15040
HYDROGEN	1.211%	CR	42564
NITROGEN	0.159%	HR	63965
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 11:15:23 AM	P_ID	100516AR
SAMPLE ID	SRM1944	USER ID	mansfield_toc1
WEIGHT (mg)	6.260	MODE	CHN

				SIGNALS	
				ZR	14861
CARBON	4.879%			NR	15012
HYDROGEN	11.821%			CR	19177
NITROGEN	0.758%			HR	44770
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	10/5/2016 11:20:25 AM	P_ID	100516AR
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	65.740	MODE	CHN

				SIGNALS	
				ZR	14876
CARBON	0.001%			NR	14947
HYDROGEN	0.065%			CR	15009
NITROGEN	-.013%			HR	17657
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	10/5/2016 11:25:26 AM	P_ID	100516AR
SAMPLE ID	SRM1944	USER ID	mansfield_toc1
WEIGHT (mg)	7.290	MODE	CHN

				SIGNALS	
				ZR	14860
CARBON	4.363%			NR	15010
HYDROGEN	0.965%			CR	19345
NITROGEN	0.641%			HR	22897
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	10/5/2016 11:30:27 AM	P_ID	100516AR
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	61.890	MODE	CHN

				SIGNALS	
				ZR	14854
CARBON	0.003%			NR	14926
HYDROGEN	0.007%			CR	15003
NITROGEN	-.012%			HR	16378
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	10/5/2016 11:36:57 AM	P_ID	100516AR
SAMPLE ID	162911901	USER ID	mansfield_toc1
WEIGHT (mg)	9.010	MODE	CHN

		SIGNALS	
		ZR	14847
CARBON	2.601%	NR	14995
HYDROGEN	0.979%	CR	18203
NITROGEN	0.503%	HR	22343
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 11:41:59 AM	P_ID	100516AR
SAMPLE ID	162911901	USER ID	mansfield_toc1
WEIGHT (mg)	9.470	MODE	CHN

		SIGNALS	
		ZR	14839
CARBON	2.543%	NR	14987
HYDROGEN	0.828%	CR	18283
NITROGEN	0.479%	HR	22101
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 11:47:00 AM	P_ID	100516AR
SAMPLE ID	162911902	USER ID	mansfield_toc1
WEIGHT (mg)	11.010	MODE	CHN

		SIGNALS	
		ZR	14849
CARBON	2.803%	NR	15024
HYDROGEN	0.976%	CR	19232
NITROGEN	0.583%	HR	24005
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 11:52:01 AM	P_ID	100516AR
SAMPLE ID	162911902	USER ID	mansfield_toc1
WEIGHT (mg)	9.730	MODE	CHN

		SIGNALS	
		ZR	14853
CARBON	2.612%	NR	15007
HYDROGEN	0.852%	CR	18482
NITROGEN	0.509%	HR	22447

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 11:57:02 AM	P_ID	100516AR
SAMPLE ID	162911903	USER ID	mansfield_toc1
WEIGHT (mg)	9.700	MODE	CHN

		SIGNALS	
		ZR	14839
CARBON	3.052%	NR	15013
HYDROGEN	1.097%	CR	19052
NITROGEN	0.655%	HR	23791
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	43 Seconds		

DATE & TIME	10/5/2016 12:02:22 PM	P_ID	100516AR
SAMPLE ID	162911903	USER ID	mansfield_toc1
WEIGHT (mg)	11.300	MODE	CHN

		SIGNALS	
		ZR	14868
CARBON	2.553%	NR	15048
HYDROGEN	0.833%	CR	18985
NITROGEN	0.599%	HR	23320
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	62 Seconds		

DATE & TIME	10/5/2016 12:07:40 PM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.140	MODE	CHN

		SIGNALS	
		ZR	14858
CARBON	1.012%	NR	14997
HYDROGEN	1.595%	CR	16433
NITROGEN	0.385%	HR	22991
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	61 Seconds		

DATE & TIME	10/5/2016 12:12:50 PM	P_ID	100516AR
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	81.270	MODE	CHN

				SIGNALS	
				ZR	14841
CARBON	-.001%			NR	14923
HYDROGEN	-.018%			CR	14964
NITROGEN	-.001%			HR	15706
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	51 Seconds				

DATE & TIME	10/5/2016 12:20:35 PM	P_ID	100516AR
SAMPLE ID	162911901D	USER ID	mansfield_toc1
WEIGHT (mg)	7.090	MODE	CHN

				SIGNALS	
				ZR	14836
CARBON	2.543%			NR	14975
HYDROGEN	0.644%			CR	17456
NITROGEN	0.551%			HR	20195
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	40 Seconds				

DATE & TIME	10/5/2016 12:25:33 PM	P_ID	100516AR
SAMPLE ID	162911901D	USER ID	mansfield_toc1
WEIGHT (mg)	8.650	MODE	CHN

				SIGNALS	
				ZR	14852
CARBON	2.567%			NR	14998
HYDROGEN	0.637%			CR	18041
NITROGEN	0.508%			HR	21091
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	39 Seconds				

DATE & TIME	10/5/2016 12:30:30 PM	P_ID	100516AR
SAMPLE ID	162911901MS	USER ID	mansfield_toc1
WEIGHT (mg)	11.590	MODE	CHN

				SIGNALS	
				ZR	14842
CARBON	3.656%			NR	15020
HYDROGEN	5.132%			CR	20776
NITROGEN	0.572%			HR	41592
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	39 Seconds				

DATE & TIME	10/5/2016 12:35:27 PM	P_ID	100516AR
SAMPLE ID	162911901MS	USER ID	mansfield_toc1
WEIGHT (mg)	11.080	MODE	CHN

		SIGNALS	
		ZR	14867
CARBON	3.596%	NR	15036
HYDROGEN	5.407%	CR	20453
NITROGEN	0.542%	HR	41409

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 38 Seconds

DATE & TIME	10/5/2016 12:40:24 PM	P_ID	100516AR
SAMPLE ID	162911901MSD	USER ID	mansfield_toc1
WEIGHT (mg)	10.490	MODE	CHN

		SIGNALS	
		ZR	14877
CARBON	3.697%	NR	15036
HYDROGEN	5.853%	CR	20310
NITROGEN	0.506%	HR	41756

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 38 Seconds

DATE & TIME	10/5/2016 12:45:20 PM	P_ID	100516AR
SAMPLE ID	162911901MSD	USER ID	mansfield_toc1
WEIGHT (mg)	10.180	MODE	CHN

		SIGNALS	
		ZR	14898
CARBON	3.950%	NR	15055
HYDROGEN	6.099%	CR	20521
NITROGEN	0.507%	HR	42195

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 38 Seconds

DATE & TIME	10/5/2016 12:50:14 PM	P_ID	100516AR
SAMPLE ID	162911906	USER ID	mansfield_toc1
WEIGHT (mg)	9.480	MODE	CHN

		SIGNALS	
		ZR	14911
CARBON	2.268%	NR	15044
HYDROGEN	0.901%	CR	17992
NITROGEN	0.368%	HR	22038

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	35 Seconds		

DATE & TIME	10/5/2016 12:55:29 PM	P_ID	100516AR
SAMPLE ID	162911906	USER ID	mansfield_toc1
WEIGHT (mg)	10.250	MODE	CHN

		SIGNALS	
		ZR	14890
CARBON	2.143%	NR	15047
HYDROGEN	0.668%	CR	18058
NITROGEN	0.504%	HR	21547
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	57 Seconds		

DATE & TIME	10/5/2016 1:00:44 PM	P_ID	100516AR
SAMPLE ID	162911907	USER ID	mansfield_toc1
WEIGHT (mg)	13.200	MODE	CHN

		SIGNALS	
		ZR	14884
CARBON	2.211%	NR	15060
HYDROGEN	0.718%	CR	19042
NITROGEN	0.492%	HR	23396
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	56 Seconds		

DATE & TIME	10/5/2016 1:05:41 PM	P_ID	100516AR
SAMPLE ID	162911907	USER ID	mansfield_toc1
WEIGHT (mg)	12.860	MODE	CHN

		SIGNALS	
		ZR	14852
CARBON	2.108%	NR	15007
HYDROGEN	0.683%	CR	18710
NITROGEN	0.391%	HR	22839
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	39 Seconds		

DATE & TIME	10/5/2016 1:10:36 PM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.120	MODE	CHN

				SIGNALS	
				ZR	14849
CARBON	1.040%			NR	14943
HYDROGEN	5.518%			CR	16414
NITROGEN	0.076%			HR	36032
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	37 Seconds				

DATE & TIME	10/5/2016 1:15:30 PM	P_ID	100516AR
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	79.040	MODE	CHN

				SIGNALS	
				ZR	14870
CARBON	0.0%			NR	14940
HYDROGEN	-.003%			CR	14991
NITROGEN	-.011%			HR	16152
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	35 Seconds				

DATE & TIME	10/5/2016 1:21:48 PM	P_ID	100516AR
SAMPLE ID	162911908	USER ID	mansfield_toc1
WEIGHT (mg)	9.500	MODE	CHN

				SIGNALS	
				ZR	14838
CARBON	2.027%			NR	14968
HYDROGEN	0.520%			CR	17614
NITROGEN	0.345%			HR	20476
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 1:26:45 PM	P_ID	100516AR
SAMPLE ID	162911908	USER ID	mansfield_toc1
WEIGHT (mg)	11.920	MODE	CHN

				SIGNALS	
				ZR	14842
CARBON	1.724%			NR	14979
HYDROGEN	0.465%			CR	17800
NITROGEN	0.316%			HR	20862
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 1:31:41 PM	P_ID	100516AR
SAMPLE ID	162911911	USER ID	mansfield_toc1
WEIGHT (mg)	13.300	MODE	CHN

				SIGNALS	
				ZR	14838
CARBON	1.375%			NR	14970
HYDROGEN	0.326%			CR	17486
NITROGEN	0.257%			HR	20150
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 1:36:38 PM	P_ID	100516AR
SAMPLE ID	162911911	USER ID	mansfield_toc1
WEIGHT (mg)	14.950	MODE	CHN

				SIGNALS	
				ZR	14839
CARBON	1.508%			NR	14980
HYDROGEN	0.366%			CR	18069
NITROGEN	0.271%			HR	21105
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 1:41:34 PM	P_ID	100516AR
SAMPLE ID	162911912	USER ID	mansfield_toc1
WEIGHT (mg)	19.120	MODE	CHN

				SIGNALS	
				ZR	14837
CARBON	1.292%			NR	14984
HYDROGEN	0.353%			CR	18364
NITROGEN	0.234%			HR	21824
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 1:46:29 PM	P_ID	100516AR
SAMPLE ID	162911912	USER ID	mansfield_toc1
WEIGHT (mg)	16.980	MODE	CHN

		SIGNALS	
		ZR	14839
CARBON	1.284%	NR	14974
HYDROGEN	0.354%	CR	17963
NITROGEN	0.214%	HR	21177

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	37 Seconds		

DATE & TIME	10/5/2016 1:51:23 PM	P_ID	100516AR
SAMPLE ID	162911913	USER ID	mansfield_toc1
WEIGHT (mg)	13.910	MODE	CHN

		SIGNALS	
		ZR	14840
CARBON	2.341%	NR	14998
HYDROGEN	0.541%	CR	19434
NITROGEN	0.376%	HR	23147
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	35 Seconds		

DATE & TIME	10/5/2016 1:56:16 PM	P_ID	100516AR
SAMPLE ID	162911913	USER ID	mansfield_toc1
WEIGHT (mg)	18.400	MODE	CHN

		SIGNALS	
		ZR	14840
CARBON	1.723%	NR	15015
HYDROGEN	0.461%	CR	19337
NITROGEN	0.349%	HR	23368
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	35 Seconds		

DATE & TIME	10/5/2016 2:01:13 PM	P_ID	100516AR
SAMPLE ID	162911914	USER ID	mansfield_toc1
WEIGHT (mg)	12.070	MODE	CHN

		SIGNALS	
		ZR	14837
CARBON	1.590%	NR	14968
HYDROGEN	0.347%	CR	17605
NITROGEN	0.278%	HR	20221
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	38 Seconds		

DATE & TIME	10/5/2016 2:06:09 PM	P_ID	100516AR
SAMPLE ID	162911914	USER ID	mansfield_toc1
WEIGHT (mg)	15.720	MODE	CHN

				SIGNALS	
				ZR	14834
CARBON	1.601%			NR	14980
HYDROGEN	0.432%			CR	18422
NITROGEN	0.280%			HR	21892
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 2:21:19 PM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.0	MODE	CHN

				SIGNALS	
				ZR	14826
CARBON	1.012%			NR	14942
HYDROGEN	5.757%			CR	16359
NITROGEN	0.230%			HR	36546
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 2:26:16 PM	P_ID	100516AR
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	68.490	MODE	CHN

				SIGNALS	
				ZR	14856
CARBON	-.002%			NR	14926
HYDROGEN	0.001%			CR	14961
NITROGEN	-.013%			HR	16220
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 2:40:15 PM	P_ID	100516AR
SAMPLE ID	162911915	USER ID	mansfield_toc1
WEIGHT (mg)	12.510	MODE	CHN

				SIGNALS	
				ZR	14820
CARBON	1.646%			NR	14992
HYDROGEN	0.436%			CR	17818
NITROGEN	0.496%			HR	20849
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	56 Seconds				

DATE & TIME	10/5/2016 2:45:23 PM	P_ID	100516AR
SAMPLE ID	162911915	USER ID	mansfield_toc1
WEIGHT (mg)	14.720	MODE	CHN

		SIGNALS	
		ZR	14828
CARBON	1.396%	NR	14974
HYDROGEN	0.410%	CR	17794
NITROGEN	0.299%	HR	21017

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 50 Seconds

DATE & TIME	10/5/2016 2:50:31 PM	P_ID	100516AR
SAMPLE ID	162911916	USER ID	mansfield_toc1
WEIGHT (mg)	16.570	MODE	CHN

		SIGNALS	
		ZR	14811
CARBON	1.474%	NR	14972
HYDROGEN	0.379%	CR	18314
NITROGEN	0.328%	HR	21617

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 49 Seconds

DATE & TIME	10/5/2016 2:55:36 PM	P_ID	100516AR
SAMPLE ID	162911916	USER ID	mansfield_toc1
WEIGHT (mg)	14.400	MODE	CHN

		SIGNALS	
		ZR	14832
CARBON	1.426%	NR	14957
HYDROGEN	0.348%	CR	17776
NITROGEN	0.204%	HR	20660

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 47 Seconds

DATE & TIME	10/5/2016 3:00:39 PM	P_ID	100516AR
SAMPLE ID	162911913	USER ID	mansfield_toc1
WEIGHT (mg)	15.120	MODE	CHN

		SIGNALS	
		ZR	14822
CARBON	1.563%	NR	14958
HYDROGEN	0.402%	CR	18194
NITROGEN	0.245%	HR	21432

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 44 Seconds

DATE & TIME	10/5/2016 3:05:39 PM	P_ID	100516AR
SAMPLE ID	162911913	USER ID	mansfield_toc1
WEIGHT (mg)	16.700	MODE	CHN

CARBON	1.331%	SIGNALS	
HYDROGEN	0.374%	ZR	14824
NITROGEN	0.242%	NR	14965
		CR	18011
		HR	21304

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 42 Seconds

DATE & TIME	10/5/2016 3:15:42 PM	P_ID	100516AR
SAMPLE ID	162912203	USER ID	mansfield_toc1
WEIGHT (mg)	14.260	MODE	CHN

CARBON	0.085%	SIGNALS	
HYDROGEN	-.007%	ZR	14806
NITROGEN	0.015%	NR	14892
		CR	15110
		HR	16314

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 39 Seconds

DATE & TIME	10/5/2016 3:20:55 PM	P_ID	100516AR
SAMPLE ID	162912203	USER ID	mansfield_toc1
WEIGHT (mg)	16.230	MODE	CHN

CARBON	0.058%	SIGNALS	
HYDROGEN	-.049%	ZR	14821
NITROGEN	0.034%	NR	14912
		CR	15094
		HR	16069

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 54 Seconds

DATE & TIME	10/5/2016 3:26:07 PM	P_ID	100516AR
SAMPLE ID	162912204	USER ID	mansfield_toc1
WEIGHT (mg)	18.850	MODE	CHN

				SIGNALS	
				ZR	14795
CARBON	0.003%			NR	14901
HYDROGEN	-.132%			CR	14963
NITROGEN	0.085%			HR	15379
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	54 Seconds				

DATE & TIME	10/5/2016 3:31:04 PM	P_ID	100516AR
SAMPLE ID	162912204	USER ID	mansfield_toc1
WEIGHT (mg)	24.430	MODE	CHN

				SIGNALS	
				ZR	14812
CARBON	0.008%			NR	14888
HYDROGEN	-.101%			CR	14970
NITROGEN	-.020%			HR	15392
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 3:36:00 PM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.010	MODE	CHN

				SIGNALS	
				ZR	14817
CARBON	1.009%			NR	14892
HYDROGEN	1.807%			CR	16306
NITROGEN	-.056%			HR	23495
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 3:40:57 PM	P_ID	100516AR
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	82.850	MODE	CHN

				SIGNALS	
				ZR	14800
CARBON	-.002%			NR	14865
HYDROGEN	-.030%			CR	14903
NITROGEN	-.015%			HR	15323
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 3:49:27 PM	P_ID	100516AR
SAMPLE ID	162912204D	USER ID	mansfield_toc1
WEIGHT (mg)	19.410	MODE	CHN

		SIGNALS	
		ZR	14790
CARBON	0.020%	NR	14875
HYDROGEN	-.094%	CR	14983
NITROGEN	0.007%	HR	15620
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 38 Seconds

DATE & TIME	10/5/2016 3:54:24 PM	P_ID	100516AR
SAMPLE ID	162912204D	USER ID	mansfield_toc1
WEIGHT (mg)	22.380	MODE	CHN

		SIGNALS	
		ZR	14796
CARBON	0.016%	NR	14881
HYDROGEN	-.074%	CR	14985
NITROGEN	0.006%	HR	15673
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 39 Seconds

DATE & TIME	10/5/2016 3:59:21 PM	P_ID	100516AR
SAMPLE ID	162912204MS	USER ID	mansfield_toc1
WEIGHT (mg)	16.870	MODE	CHN

		SIGNALS	
		ZR	14789
CARBON	0.647%	NR	14911
HYDROGEN	2.866%	CR	16434
NITROGEN	0.161%	HR	33582
BLANKS	55 1236 83		
K FACTORS	13.456 32.916 1.433		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 39 Seconds

DATE & TIME	10/5/2016 4:04:19 PM	P_ID	100516AR
SAMPLE ID	162912204MS	USER ID	mansfield_toc1
WEIGHT (mg)	19.470	MODE	CHN

		SIGNALS	
		ZR	14819
CARBON	0.561%	NR	14910
HYDROGEN	3.217%	CR	16434
NITROGEN	0.029%	HR	38289

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	39 Seconds		

DATE & TIME	10/5/2016 4:09:17 PM	P_ID	100516AR
SAMPLE ID	162958401	USER ID	mansfield_toc1
WEIGHT (mg)	13.620	MODE	CHN

		SIGNALS	
		ZR	14856
CARBON	5.427%	NR	15193
HYDROGEN	0.937%	CR	25195
NITROGEN	1.301%	HR	30633
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	40 Seconds		

DATE & TIME	10/5/2016 4:14:16 PM	P_ID	100516AR
SAMPLE ID	162958401	USER ID	mansfield_toc1
WEIGHT (mg)	9.950	MODE	CHN

		SIGNALS	
		ZR	14835
CARBON	6.139%	NR	15126
HYDROGEN	0.884%	CR	23400
NITROGEN	1.459%	HR	27530
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	40 Seconds		

DATE & TIME	10/5/2016 4:19:15 PM	P_ID	100516AR
SAMPLE ID	162958402	USER ID	mansfield_toc1
WEIGHT (mg)	15.050	MODE	CHN

		SIGNALS	
		ZR	14824
CARBON	4.900%	NR	15189
HYDROGEN	0.891%	CR	25167
NITROGEN	1.308%	HR	30819
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	41 Seconds		

DATE & TIME	10/5/2016 4:24:11 PM	P_ID	100516AR
SAMPLE ID	162958402	USER ID	mansfield_toc1
WEIGHT (mg)	9.960	MODE	CHN

				SIGNALS	
				ZR	14811
CARBON	4.889%			NR	15067
HYDROGEN	0.770%			CR	21674
NITROGEN	1.212%			HR	25436
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	38 Seconds				

DATE & TIME	10/5/2016 4:29:07 PM	P_ID	100516AR
SAMPLE ID	162958403	USER ID	mansfield_toc1
WEIGHT (mg)	10.490	MODE	CHN

				SIGNALS	
				ZR	14803
CARBON	3.359%			NR	14993
HYDROGEN	0.415%			CR	19790
NITROGEN	0.712%			HR	22460
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	37 Seconds				

DATE & TIME	10/5/2016 4:34:03 PM	P_ID	100516AR
SAMPLE ID	162958403	USER ID	mansfield_toc1
WEIGHT (mg)	12.980	MODE	CHN

				SIGNALS	
				ZR	14807
CARBON	3.202%			NR	15012
HYDROGEN	0.405%			CR	20659
NITROGEN	0.656%			HR	23625
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	37 Seconds				

DATE & TIME	10/5/2016 4:38:58 PM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.100	MODE	CHN

				SIGNALS	
				ZR	14807
CARBON	1.061%			NR	14885
HYDROGEN	0.917%			CR	16382
NITROGEN	-.035%			HR	20666
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	37 Seconds				

DATE & TIME	10/5/2016 4:43:54 PM	P_ID	100516AR
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	82.660	MODE	CHN

				SIGNALS	
				ZR	14803
CARBON	0.001%			NR	14868
HYDROGEN	-.036%			CR	14936
NITROGEN	-.015%			HR	15187
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	37 Seconds				

DATE & TIME	10/6/2016 7:35:18 AM	P_ID	100516AR
SAMPLE ID	162958404	USER ID	mansfield_toc1
WEIGHT (mg)	16.460	MODE	CHN

				SIGNALS	
				ZR	14757
CARBON	1.801%			NR	15749
HYDROGEN	0.230%			CR	19794
NITROGEN	3.854%			HR	22276
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	33 Seconds				

DATE & TIME	10/6/2016 7:40:09 AM	P_ID	100516AR
SAMPLE ID	162958404	USER ID	mansfield_toc1
WEIGHT (mg)	14.040	MODE	CHN

				SIGNALS	
				ZR	14771
CARBON	3.034%			NR	15095
HYDROGEN	0.252%			CR	20881
NITROGEN	1.198%			HR	23281
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	33 Seconds				

DATE & TIME	10/6/2016 7:45:01 AM	P_ID	100516AR
SAMPLE ID	162958405	USER ID	mansfield_toc1
WEIGHT (mg)	14.510	MODE	CHN

		SIGNALS	
		ZR	14763
CARBON	1.977%	NR	14941
HYDROGEN	0.189%	CR	18857
NITROGEN	0.457%	HR	20995

BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	33 Seconds		

DATE & TIME	10/6/2016 7:49:52 AM	P_ID	100516AR
SAMPLE ID	162958405	USER ID	mansfield_toc1
WEIGHT (mg)	12.130	MODE	CHN

		SIGNALS	
		ZR	14767
CARBON	1.792%	NR	14887
HYDROGEN	0.021%	CR	17867
NITROGEN	0.213%	HR	19185
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	33 Seconds		

DATE & TIME	10/6/2016 7:54:44 AM	P_ID	100516AR
SAMPLE ID	162958406	USER ID	mansfield_toc1
WEIGHT (mg)	14.300	MODE	CHN

		SIGNALS	
		ZR	14767
CARBON	1.169%	NR	14899
HYDROGEN	0.139%	CR	17203
NITROGEN	0.239%	HR	19092
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	33 Seconds		

DATE & TIME	10/6/2016 7:59:36 AM	P_ID	100516AR
SAMPLE ID	162958406	USER ID	mansfield_toc1
WEIGHT (mg)	13.290	MODE	CHN

		SIGNALS	
		ZR	14769
CARBON	1.376%	NR	14904
HYDROGEN	0.245%	CR	17419
NITROGEN	0.273%	HR	19725
BLANKS	55	1236	83
K FACTORS	13.456	32.916	1.433
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	33 Seconds		

DATE & TIME	10/6/2016 8:10:41 AM	P_ID	100516AR
SAMPLE ID	162958404	USER ID	mansfield_toc1
WEIGHT (mg)	16.340	MODE	CHN

				SIGNALS	
				ZR	14767
CARBON	2.415%			NR	14905
HYDROGEN	0.216%			CR	20270
NITROGEN	0.235%			HR	22668
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	33 Seconds				

DATE & TIME	10/6/2016 8:15:33 AM	P_ID	100516AR
SAMPLE ID	162958404	USER ID	mansfield_toc1
WEIGHT (mg)	16.570	MODE	CHN

				SIGNALS	
				ZR	14777
CARBON	2.222%			NR	14907
HYDROGEN	0.187%			CR	19917
NITROGEN	0.198%			HR	22172
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	33 Seconds				

DATE & TIME	10/6/2016 8:20:24 AM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.340	MODE	CHN

				SIGNALS	
				ZR	14781
CARBON	1.269%			NR	14982
HYDROGEN	4.228%			CR	16803
NITROGEN	0.796%			HR	32429
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	33 Seconds				

DATE & TIME	10/6/2016 8:25:17 AM	P_ID	100516AR
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	63.500	MODE	CHN

				SIGNALS	
				ZR	14796
CARBON	0.003%			NR	14872
HYDROGEN	-.020%			CR	14952
NITROGEN	-.008%			HR	15762
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	34 Seconds				

DATE & TIME	10/6/2016 8:32:34 AM	P_ID	100516AR
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.140	MODE	CHN

				SIGNALS	
				ZR	14788
CARBON	0.886%			NR	15016
HYDROGEN	4.900%			CR	16280
NITROGEN	0.998%			HR	33869
BLANKS	55	1236	83		
K FACTORS	13.456	32.916	1.433		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	34 Seconds				

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 06 2016, 04:50 pm

Work Group: WG939414 for Department: 7 Wet Chemistry

Created: 06-OCT-16 Due: Operator: AR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1629119-01	LDW-BA-SC-ENR-CA-COR	S	A2-SOOT	SOIL	DONE	U	1008	1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	S	A2-SOOT	SOIL	DONE	U	1008	1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	S	A2-SOOT	SOIL	DONE	U	1008	1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	S	A2-SOOT	SOIL	DONE	U	1007	1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	S	A2-SOOT	SOIL	DONE	U	1007	1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	S	A2-SOOT	SOIL	DONE	U	1007	1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	S	A2-SOOT	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	S	A2-SOOT	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	S	A2-SOOT	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	S	A2-SOOT	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	S	A2-SOOT	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	S	A2-SOOT	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629122-05	VC-A-04-S1	S	A2-SOOT	SOIL	DONE	U	1008	1012	S0	Glass-A.5
L1629122-06	VC-A-04-S2	S	A2-SOOT	SOIL	DONE	U	1008	1012	S0	Glass-A.5
L1629122-07	VC-A-04-S3	S	A2-SOOT	SOIL	DONE	U	1008	1012	S0	Glass-A.5
L1629122-08	VC-A-05	S	A2-SOOT	SOIL	DONE	U	1008	1012	S0	Glass-A.5
L1629122-09	VC-A-06-S1	S	A2-SOOT	SOIL	DONE	U	1011	1012	S0	Glass-A.5
L1629122-10	VC-A-06-S2	S	A2-SOOT	SOIL	DONE	U	1011	1012	S0	Glass-A.5
WG939414-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG939414-2	Standard Reference M	S	A2-SOOT	SOIL	DONE	U				
WG939414-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG939414-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				
WG939414-5	Matrix Spike Duplica	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG939414-3	L1629119-01
WG939414-4	L1629119-01
WG939414-5	L1629119-01

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 06 2016, 04:50 pm

Work Group: WG939422 for Department: 7 Wet Chemistry

Created: 06-OCT-16 Due: Operator: AR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1629119-01	LDW-BA-SC-ENR-CA-COR	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1008	1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1008	1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1008	1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1007	1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1007	1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1007	1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1012	1006	S0	Glass-A.25
L1629584-01	DRBC-2016-1	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1005	1011	S0	Glass-A.5
L1629584-02	DRBC-2016-2	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1005	1011	S0	Glass-A.5
L1629584-03	DRBC-2016-3	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1005	1011	S0	Glass-A.5
L1629584-04	DRBC-2016-4	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1005	1011	S0	Glass-A.5
L1629584-05	DRBC-2016-5	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1005	1011	S0	Glass-A.5
L1629584-06	DRBC-2016-6	S	A2-TOC-9060-2REPS	SOIL	DONE	U	1005	1011	S0	Glass-A.5
WG939422-1	Laboratory Method Bl	S	A2-TOC-9060-2REPS	SOIL	DONE	U				
WG939422-2	Standard Reference M	S	A2-TOC-9060-2REPS	SOIL	DONE	U				
WG939422-3	Duplicate Sample	S	A2-TOC-9060-2REPS	SOIL	DONE	U				
WG939422-4	Matrix Spike	S	A2-TOC-9060-2REPS	SOIL	DONE	U				
WG939422-5	Matrix Spike Duplica	S	A2-TOC-9060-2REPS	SOIL	DONE	U				

Comments:

WG939422-3	L1629119-01
WG939422-4	L1629119-01
WG939422-5	L1629119-01

Sample Preparation

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 10/4/16
Analyst: CW
2° Review:

CCV ID: WW051116 A-C
SRM 1944 ID: WS081944A
Filter Aid ID: WS120415A

ICV ID: WW051116F
Balance ID: 001712
Other SRM ID:

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~Conditioning Std~~ K				1	10.48
Blank				2	85.78
K Factor				3	9.75
~~Blank~~ K				4	10.18
K ~~Factor~~ ICV				5	10.49
K ~~Factor~~ ICB				6	55.27
ICV HICV				7	51.97
ICB SRM1650				8	1.30
LCS MB				9	39.21
Blank SRM1650				10	1.10
MB				11	81.92
HICV				12	51.75
L1629122	05			13	16.49
	05			14	19.72
	06			15	20.95
	06			16	20.96
	07			17	16.58
	07			~~18~~	~~18.93~~
CCV				18	10.08
CCB				19	63.54
L1629122	07			20	18.93
	05PR			21	19.25

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1629122	05PR			22	18.89
	08			23	20.42
	08			24	25.00
	09			25	24.02
	09			26	18.77
	10			27	17.82
	10			28	21.67
CCV				29	10.32 *
~~CCV~~ CCB				30	57.01
~~CCB~~ CCV				31	10.03
L1629119	01			32	11.39
	01			33	10.82
	01D			34	11.46
	01D			35	9.60
	01MS	10.10		36	13.33
	01MS	10.05		37	15.22
	01MSD	10.03		38	9.72
	01MSD	10.06		39	10.95
	02			40	7.25
	02			41	11.17
CCV				42	10.10
CCB				43	65.56

* autosampler error ar. 10/3

Document Type: Form

Pre-Qualtrax Document ID: 107-02

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 10/4/16
Analyst: _____ 2° Review: _____

CCV ID: _____ ICV ID: _____
SRM 1944 ID: _____ Balance ID: _____
Filter Aid ID: _____ Other SRM ID: _____

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
Blank					
~~K Factor~~ L1629119	01DRR			44	12.84
~~Blank~~	01DRR			45	13.85
~~K Factor~~	03			46	10.65
~~K Factor~~	03			47	15.93
~~ICV~~	06			48	15.03
~~ICB~~	04			49	10.45
~~LCS~~	07			50	13.12
~~Blank~~	07			51	15.46
	08			52	14.06
	08			53	12.76
CCV				54	10.27
CCB				55	63.73
L1629119	06RR			56	10.15
	06RR			57	10.01
	~~09~~11			58	22.82
	~~09~~11			59	17.30
~~CCV~~	~~10~~12			60	13.82
~~CCB~~	12			61	15.41
	13			62	13.82
	13			63	13.75

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1629119	14			64	16.26
	14			65	14.75
CCV				66	10.24
CCB				67	96.00
L1629119	15			68	14.96
	15			69	16.67
	16			70	10.75
	16			71	14.65
~~CCV~~	13RR			72	16.05
~~CCB~~	13RR			73	18.84
L1629122	09RR			74	25.08
	09RR			75	25.17
CCV				76	10.02
CCB				77	67.32
CCV					
CCB					

TOC Instrument: (#1) - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 10/5/16
Analyst: AR
2° Review:
CCV ID: WW051116 A-E
SRM 1944 ID: WS081814 A
Filter Aid ID: WS120415A
ICV ID: WW051116 F
Balance ID: 001712
Other SRM ID:

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~Conditioning Std~~ K				01	10.09
Blank				02	80.99
~~K Factor~~ 0				03	10.09
~~Blank~~ 1000				04	10.12
~~K Factor~~ 5000				05	9.99
~~K Factor~~ 10000				06	10.17
~~ICV~~ 20000				07	10.21
~~ICB~~ 40000				08	10.47
~~LCS~~ 1000				09	10.08
~~Blank~~ 1000				10	10.12
40000				11	10.48
40000				12	10.27
40000				13	10.40
10000				14	10.14
ICV				15	10.25
ICB				16	71.81
ICV				17	10.12
HICV				18	50.60
~~CCV~~ SRM1944				19	6.26
~~CCB~~ MB				20	65.74
SRM1944				21	7.29
MB				22	61.89

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
U629119	01			23	9.01
	01			24	9.47
	02			25	11.01
	02			26	9.73
	03			27	9.70
	03			28	11.30
CCV				29	10.14
CCB				30	81.27
~~CCV~~ U629119	01D			31	7.09
~~CCB~~	01D			32	8.65
	01MS	10.18		33	11.59
	01MS	10.14		34	11.09
	01MSD	10.07		35	10.49
	01MSD	10.19		36	10.18
	06			37	9.48
	06			38	10.25
	07			39	13.20
	07			40	12.86
CCV				41	10.12
CCB				42	79.04
~~CCV~~ U629119	08			43	9.50
~~CCB~~	08			44	11.92

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 10/5/16
Analyst: AR
2° Review:
CCV ID:
SRM 1944 ID:
Filter Aid ID:
ICV ID:
Balance ID:
Other SRM ID:

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
Blank					
~~K Factor~~ L1629119	11			45	13.30
~~Blank~~	11			46	14.95
~~K Factor~~	12			47	19.12
~~K Factor~~	12			48	16.98
~~ICV~~	13			49	13.91
~~ICB~~	13			50	18.40
~~LCS~~	14			51	12.07
~~Blank~~	14			52	15.72
CCV				53	10.00
CCB				54	68.49
L1629119	15			55	12.57
	15			56	14.92
	16			57	16.57
	16			58	14.40
	13 RR			59	15.12
	13 RR			60	16.70
~~CCV~~ L1629122	03			61	14.26
~~CCB~~	03			62	16.23
	04			63	18.85
	04			64	24.43

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCV				65	10.01
CCB				66	82.85
L1629122	04D			67	19.41
	04D			68	22.38
	04MS	10.35		69	16.87
	04MS	9.91		70	19.47
L1629584	01			71	13.62
	01			72	9.95
~~CCV~~	02			73	15.05
~~CCB~~	02			74	9.96
	03			75	10.49
	03			76	12.98
CCV				77	10.10
CCB				78	82.66
L1629584	04			79	16.46
	04			80	14.04
	05			81	14.51
	05			82	12.13
	06			83	14.30
	06			84	13.29
~~CCV~~	04RR			85	16.34
~~CCB~~	04RR			86	16.57

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 10/5/16
Analyst:
2° Review:
CCV ID:
SRM 1944 ID:
Filter Aid ID:
ICV ID:
Balance ID:
Other SRM ID:

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
Blank					
~~K Factor~~ CCV				87	10.34
~~Blank~~ CCB				88	63.50
~~K Factor~~ CCV				89	10.14
K Factor					
ICV					
ICB					
LCS					
Blank					
CCV					
CCB					

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCV					
CCB					
CCV					
CCB					

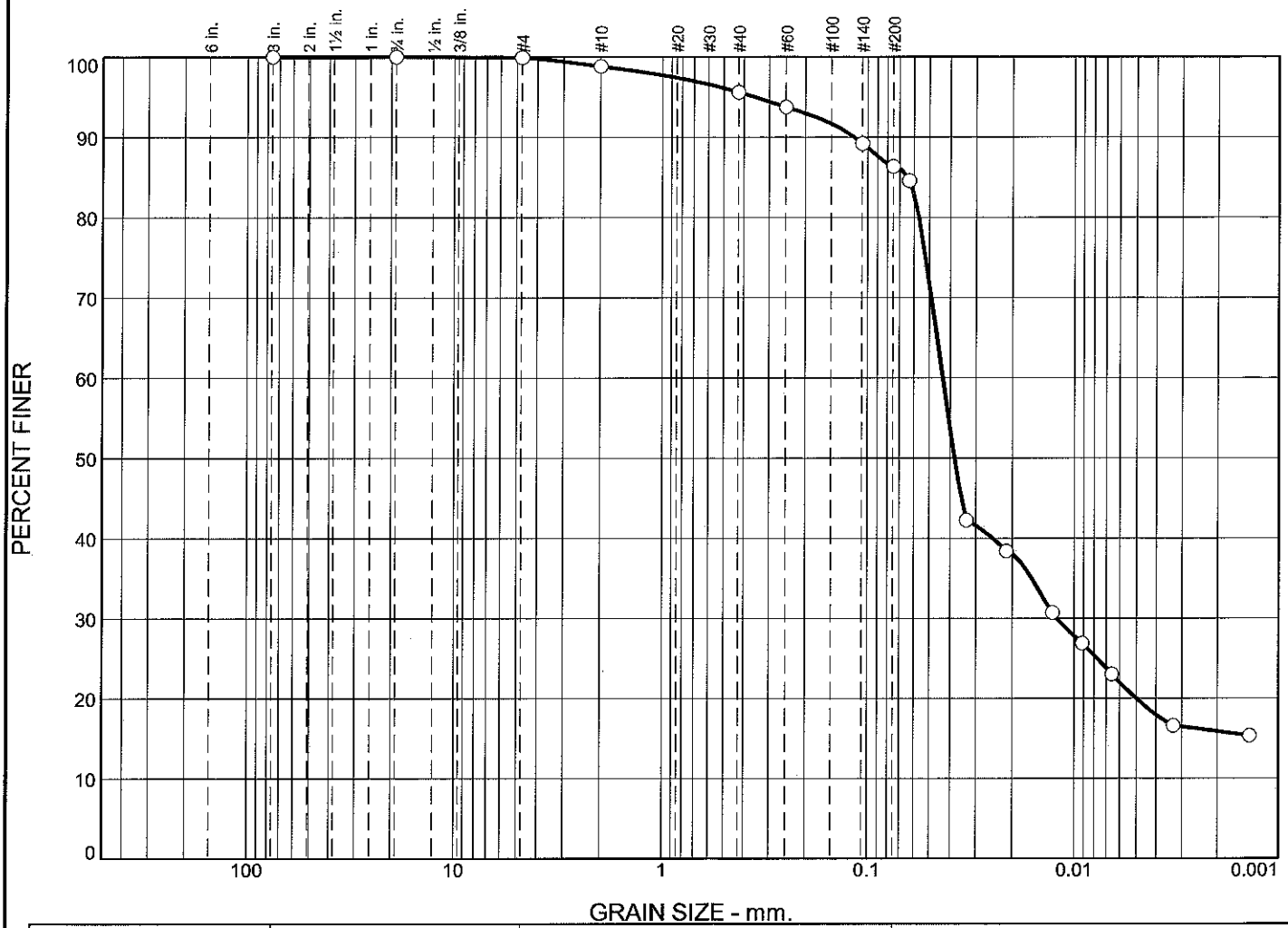
Grainsize Analysis

Sample Raw Data

ASTM D422-63

GRAIN SIZE ANALYSIS

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	1.1	3.2	9.3	66.3	20.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0641	0.0433	0.0381	0.0122				

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CA-CORE **Sample No.:** L1629119-01

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CA-CORE

Sample Number: L1629119-01

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 54.05
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
54.05	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.05	0.00	99.9
		#10	0.59	0.00	98.8
		#40	1.74	0.00	95.6
		#60	1.00	0.00	93.7
		#140	2.46	0.00	89.2
		#200	1.54	0.00	86.3
		#230	0.96	0.00	84.6

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 86.3
Weight of hydrometer sample =54.05
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0165	1.0165	0.0136	16.5	11.9	0.0333	42.3
5.00	20.0	1.0150	1.0150	0.0136	15.0	12.3	0.0214	38.4
15.00	20.0	1.0120	1.0120	0.0136	12.0	13.1	0.0128	30.7
30.00	20.0	1.0105	1.0105	0.0136	10.5	13.5	0.0092	26.9
60.00	20.0	1.0090	1.0090	0.0136	9.0	13.9	0.0066	23.0
250.00	20.0	1.0065	1.0065	0.0136	6.5	14.6	0.0033	16.6
1440.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0014	15.3

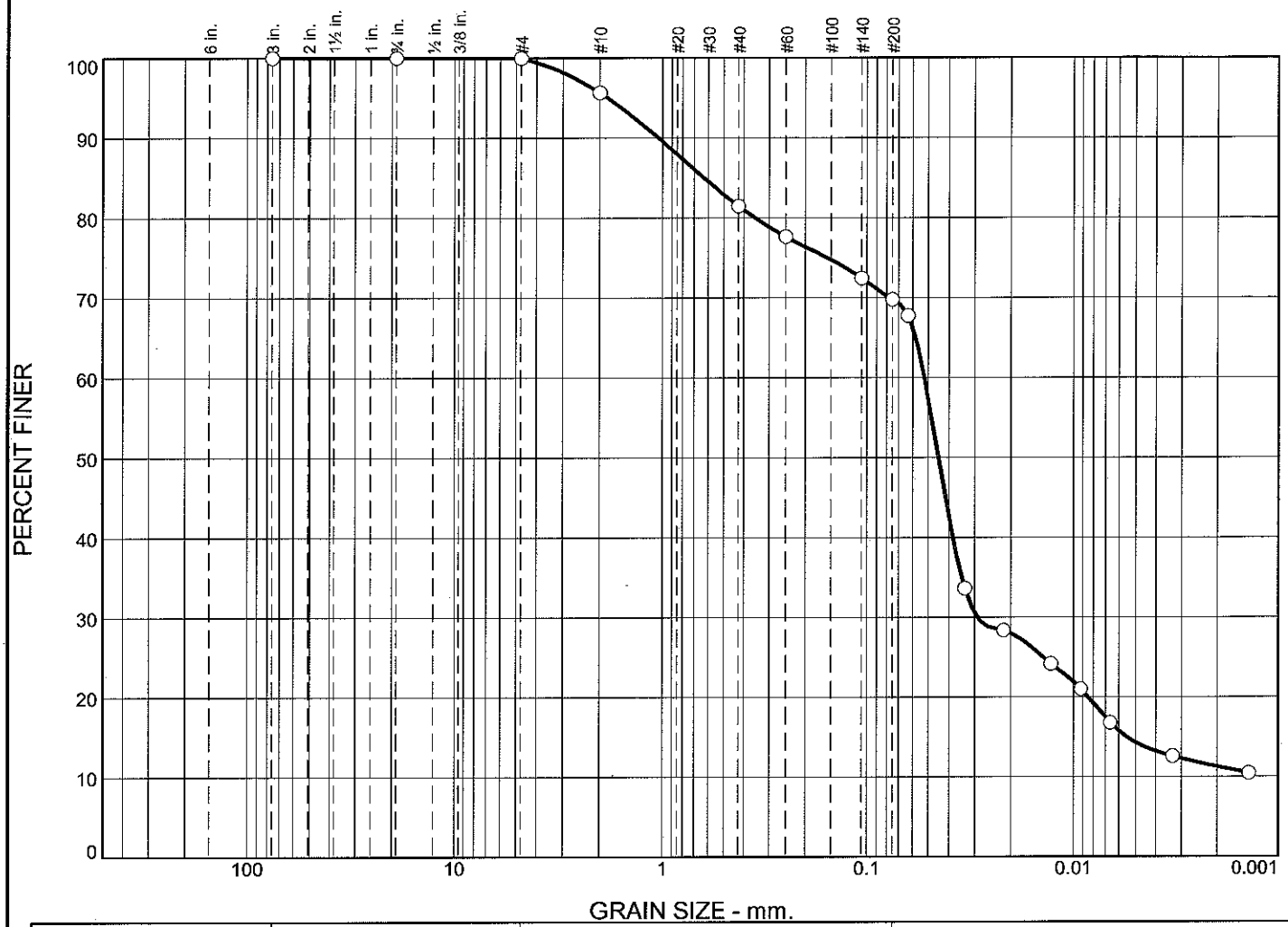
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	1.1	3.2	9.3	13.6	66.3	20.0	86.3

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
		0.0050	0.0122	0.0381	0.0433	0.0566	0.0641	0.1163	0.3557

Fineness Modulus
0.20

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	4.3	14.1	11.7	55.5	14.3

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.6284	0.0525	0.0448	0.0291	0.0055			

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CA-CORE **Sample No.:** WG939468-1

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CA-CORE

Sample Number: WG939468-1

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 53.20
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
53.20	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.03	0.00	99.9
		#10	2.29	0.00	95.6
		#40	7.54	0.00	81.5
		#60	2.04	0.00	77.6
		#140	2.77	0.00	72.4
		#200	1.41	0.00	69.8
		#230	1.08	0.00	67.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 69.8
Weight of hydrometer sample =53.20
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0335	33.6
5.00	20.0	1.0135	1.0135	0.0136	13.5	12.7	0.0218	28.4
15.00	20.0	1.0115	1.0115	0.0136	11.5	13.3	0.0128	24.2
30.00	20.0	1.0100	1.0100	0.0136	10.0	13.6	0.0092	21.0
60.00	20.0	1.0080	1.0080	0.0136	8.0	14.2	0.0066	16.8
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	12.6
1440.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0014	10.5

Fractional Components

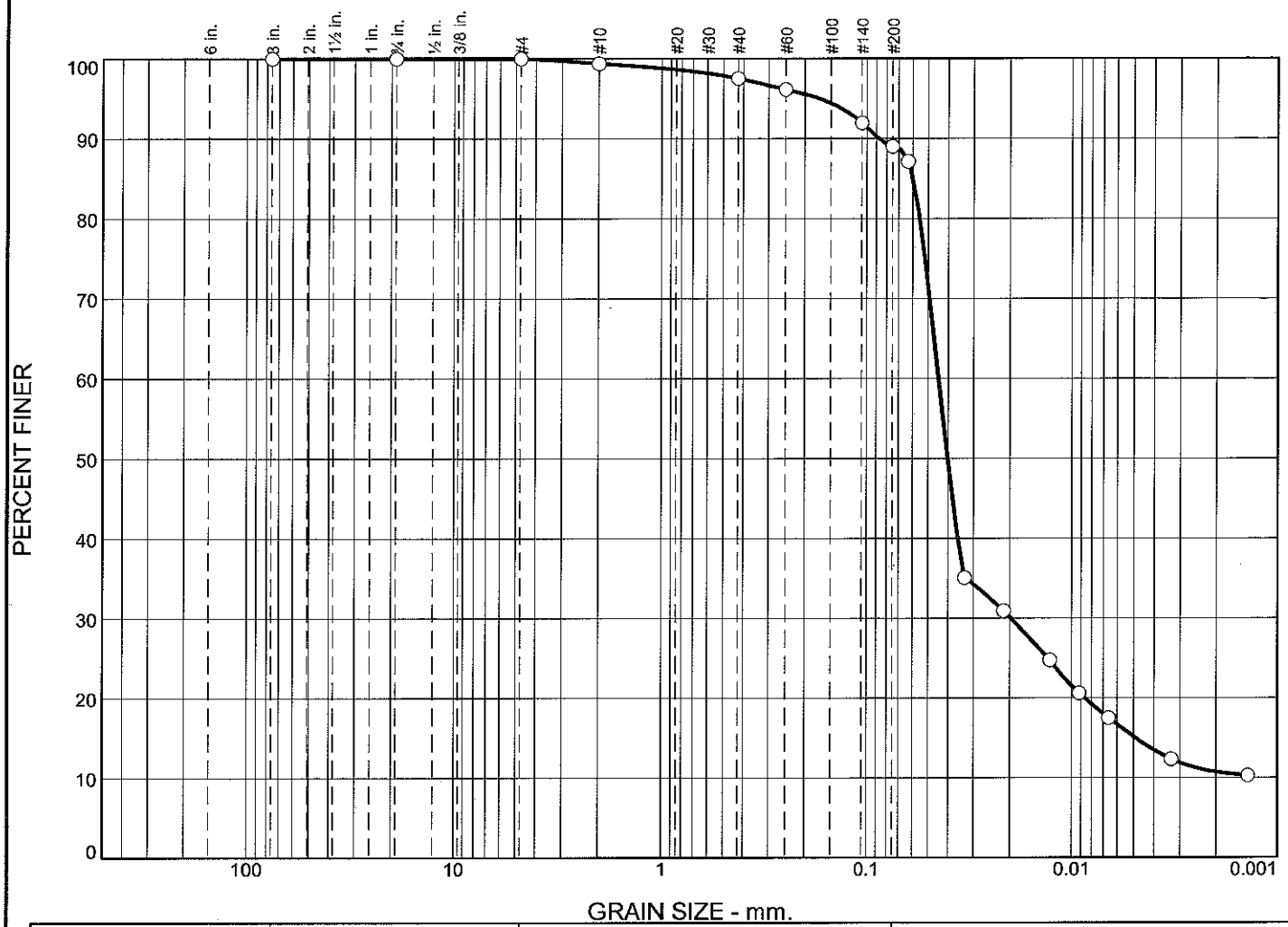
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	4.3	14.1	11.7	30.1	55.5	14.3	69.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0055	0.0085	0.0291	0.0448	0.0525	0.3535	0.6284	1.0501	1.8395

Fineness Modulus
0.74

Alpha Analytical

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.6	1.9	8.5	73.8	15.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0599	0.0445	0.0402	0.0197	0.0049			

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CB-CORE **Sample No.:** L1629119-02

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CB-CORE

Sample Number: L1629119-02

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 69.16
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
69.16	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.43	0.00	99.4
		#40	1.31	0.00	97.5
		#60	0.93	0.00	96.1
		#140	2.92	0.00	91.9
		#200	2.02	0.00	89.0
		#230	1.30	0.00	87.1

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 89.0
Weight of hydrometer sample =69.16
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0170	1.0170	0.0136	17.0	11.8	0.0331	35.1
5.00	20.0	1.0150	1.0150	0.0136	15.0	12.3	0.0214	30.9
15.00	20.0	1.0120	1.0120	0.0136	12.0	13.1	0.0128	24.7
30.00	20.0	1.0100	1.0100	0.0136	10.0	13.6	0.0092	20.6
60.00	20.0	1.0085	1.0085	0.0136	8.5	14.0	0.0066	17.5
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	12.3
1440.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0014	10.3

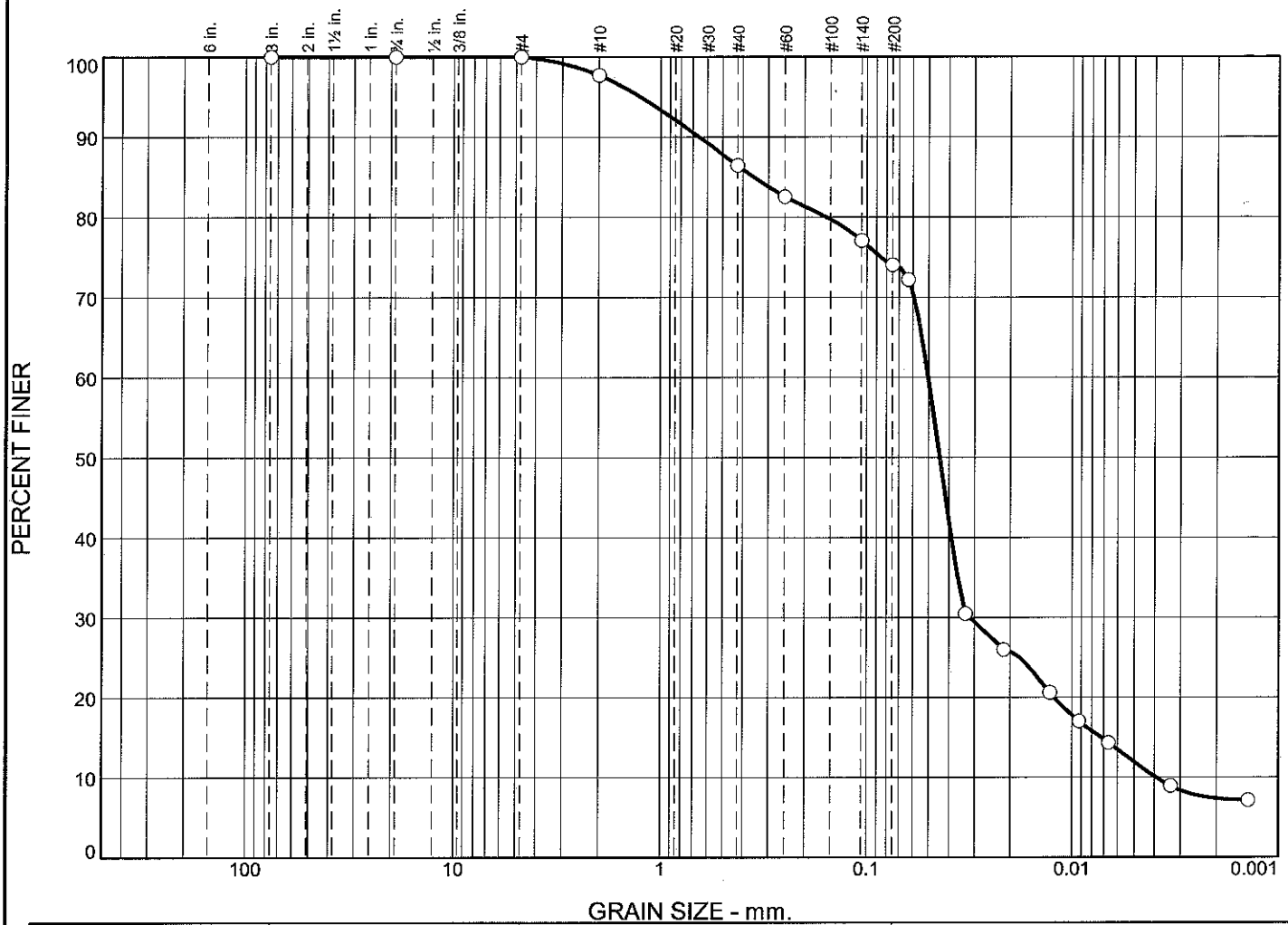
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.6	1.9	8.5	11.0	73.8	15.2	89.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0049	0.0087	0.0197	0.0402	0.0445	0.0553	0.0599	0.0878	0.1709

Fineness Modulus
0.12

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	2.3	11.3	12.4	62.1	11.9

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3543	0.0503	0.0442	0.0316	0.0072	0.0039	5.06	12.79

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CC-CORE **Sample No.:** L1629119-03

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CC-CORE

Sample Number: L1629119-03

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 66.20
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
66.20	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	1.52	0.00	97.7
		#40	7.46	0.00	86.4
		#60	2.56	0.00	82.6
		#140	3.64	0.00	77.1
		#200	2.00	0.00	74.0
		#230	1.23	0.00	72.2

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 74.0
Weight of hydrometer sample =66.20
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0170	1.0170	0.0136	17.0	11.8	0.0331	30.5
5.00	20.0	1.0145	1.0145	0.0136	14.5	12.5	0.0215	26.0
15.00	20.0	1.0115	1.0115	0.0136	11.5	13.3	0.0128	20.6
30.00	20.0	1.0095	1.0095	0.0136	9.5	13.8	0.0092	17.0
60.00	20.0	1.0080	1.0080	0.0136	8.0	14.2	0.0066	14.3
250.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0033	8.9
1440.00	20.0	1.0040	1.0040	0.0136	4.0	15.2	0.0014	7.1

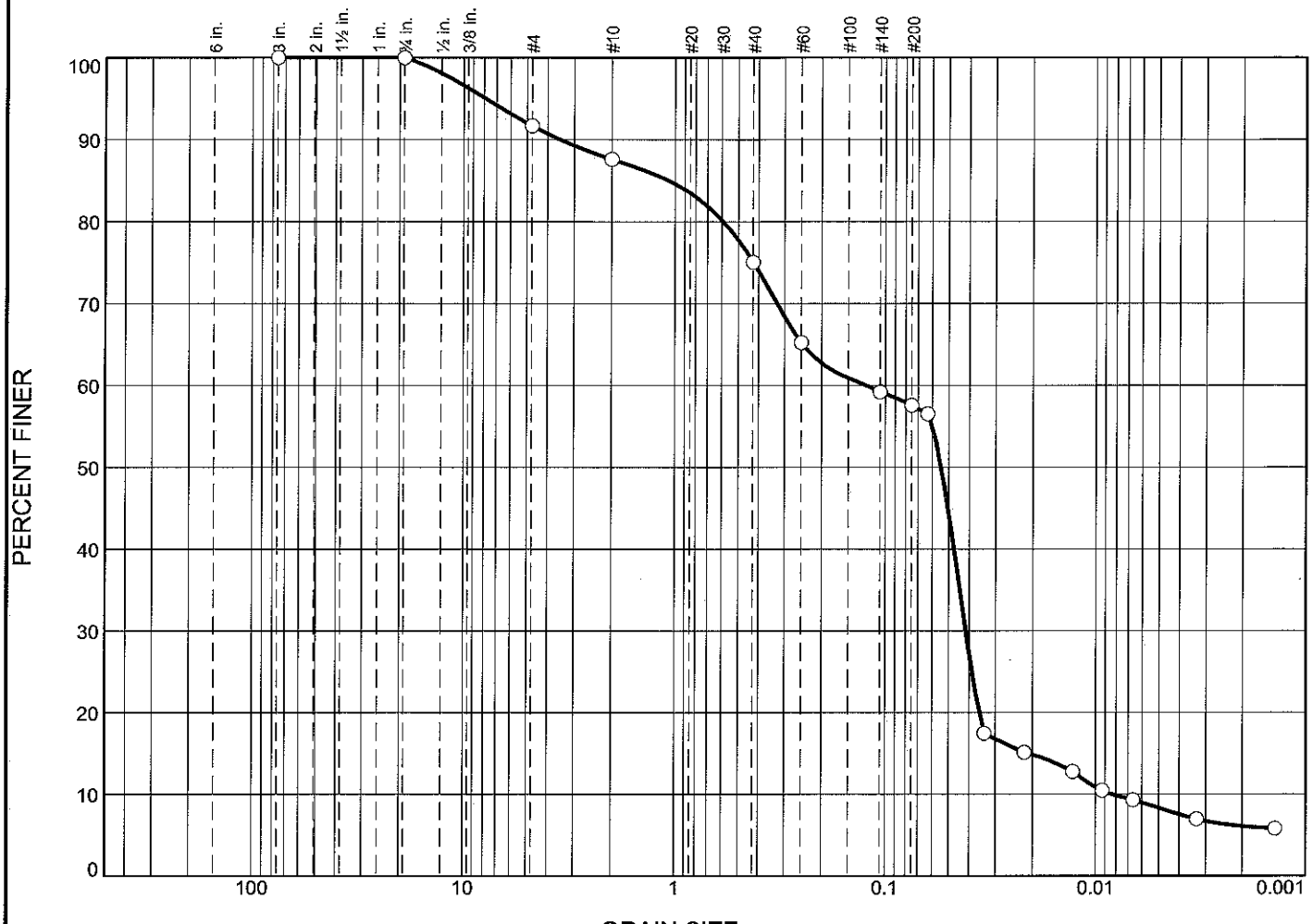
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	2.3	11.3	12.4	26.0	62.1	11.9	74.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0039	0.0072	0.0122	0.0316	0.0442	0.0503	0.1572	0.3543	0.6562	1.2583

Fineness Modulus	C_u	C_c
0.54	12.79	5.06

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	8.3	4.1	12.5	17.5	49.3	8.3

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.0747	0.1229	0.0544	0.0415	0.0210	0.0084	1.68	14.71

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR AC-CA-CORE **Sample No.:** L1629119-06

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR AC-CA-CORE

Sample Number: L1629119-06

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 79.33
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
79.33	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	6.60	0.00	91.7
		#10	3.24	0.00	87.6
		#40	9.95	0.00	75.1
		#60	7.80	0.00	65.2
		#140	4.77	0.00	59.2
		#200	1.30	0.00	57.6
		#230	0.84	0.00	56.5

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 57.6
Weight of hydrometer sample =79.33
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0150	1.0150	0.0136	15.0	12.3	0.0339	17.5
5.00	20.0	1.0130	1.0130	0.0136	13.0	12.9	0.0219	15.1
15.00	20.0	1.0110	1.0110	0.0136	11.0	13.4	0.0129	12.8
30.00	20.0	1.0090	1.0090	0.0136	9.0	13.9	0.0093	10.5
60.00	20.0	1.0080	1.0080	0.0136	8.0	14.2	0.0066	9.3
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	7.0
1440.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0014	5.8

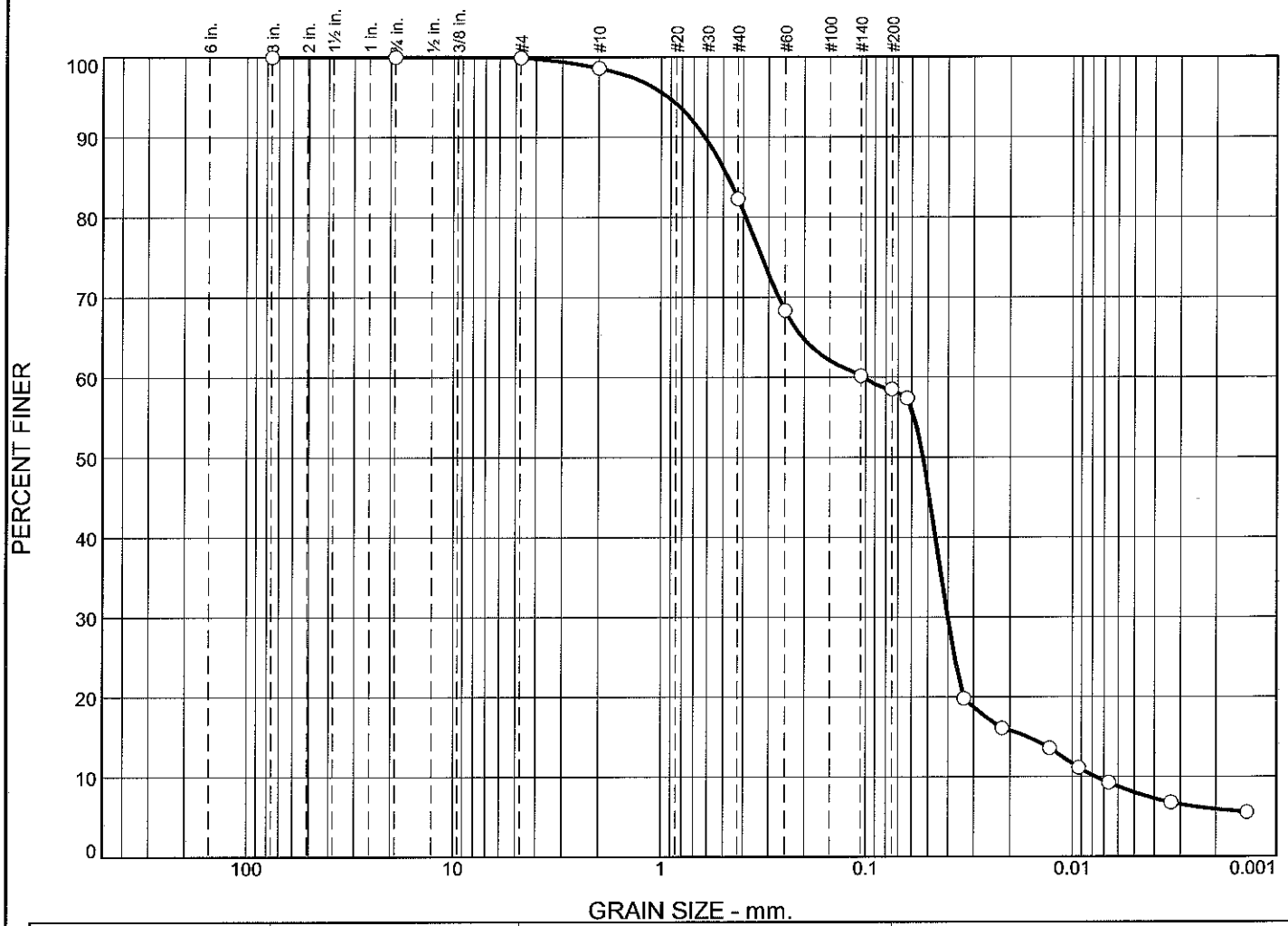
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	8.3	8.3	4.1	12.5	17.5	34.1	49.3	8.3	57.6

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0084	0.0210	0.0357	0.0415	0.0544	0.1229	0.5924	1.0747	3.4943	7.8620

Fineness Modulus	C_u	C_c
1.29	14.71	1.68

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	1.3	16.3	23.8	50.5	8.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4760	0.1032	0.0532	0.0401	0.0165	0.0077	2.02	13.42

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR AC-CB-CORE **Sample No.:** L1629119-07

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR AC-CB-CORE

Sample Number: L1629119-07

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 75.74
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
75.74	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.06	0.00	99.9
		#10	1.00	0.00	98.6
		#40	12.35	0.00	82.3
		#60	10.59	0.00	68.3
		#140	6.17	0.00	60.2
		#200	1.25	0.00	58.5
		#230	0.85	0.00	57.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 58.5
Weight of hydrometer sample =75.74
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0335	19.8
5.00	20.0	1.0130	1.0130	0.0136	13.0	12.9	0.0219	16.1
15.00	20.0	1.0110	1.0110	0.0136	11.0	13.4	0.0129	13.6
30.00	20.0	1.0090	1.0090	0.0136	9.0	13.9	0.0093	11.1
60.00	20.0	1.0075	1.0075	0.0136	7.5	14.3	0.0067	9.3
250.00	20.0	1.0055	1.0055	0.0136	5.5	14.8	0.0033	6.8
1440.00	20.0	1.0045	1.0045	0.0136	4.5	15.1	0.0014	5.6

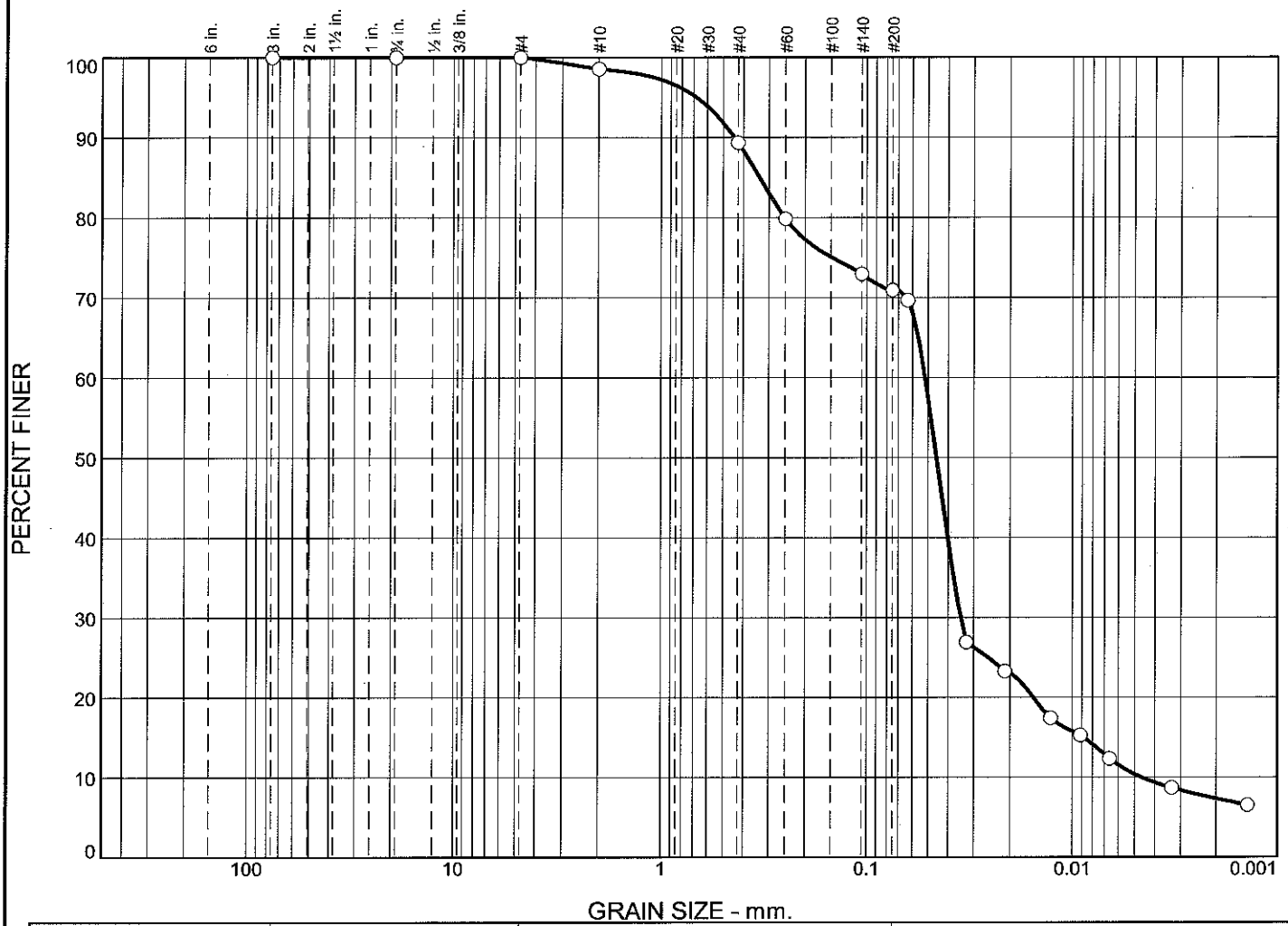
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	1.3	16.3	23.8	41.4	50.5	8.0	58.5

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0077	0.0165	0.0337	0.0401	0.0532	0.1032	0.3897	0.4760	0.6180	0.9310

Fineness Modulus	C_u	C_c
0.80	13.42	2.02

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	1.4	9.3	18.4	60.5	10.4

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3351	0.0519	0.0455	0.0347	0.0088	0.0046	5.01	11.18

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR AC-CC-CORE **Sample No.:** L1629119-08

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR AC-CC-CORE

Sample Number: L1629119-08

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 78.20
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
78.20	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	1.13	0.00	98.6
		#40	7.20	0.00	89.3
		#60	7.42	0.00	79.9
		#140	5.41	0.00	72.9
		#200	1.57	0.00	70.9
		#230	0.99	0.00	69.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 70.9
Weight of hydrometer sample =78.20
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0185	1.0185	0.0136	18.5	11.4	0.0326	26.9
5.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0212	23.3
15.00	20.0	1.0120	1.0120	0.0136	12.0	13.1	0.0128	17.4
30.00	20.0	1.0105	1.0105	0.0136	10.5	13.5	0.0092	15.3
60.00	20.0	1.0085	1.0085	0.0136	8.5	14.0	0.0066	12.3
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	8.7
1440.00	20.0	1.0045	1.0045	0.0136	4.5	15.1	0.0014	6.5

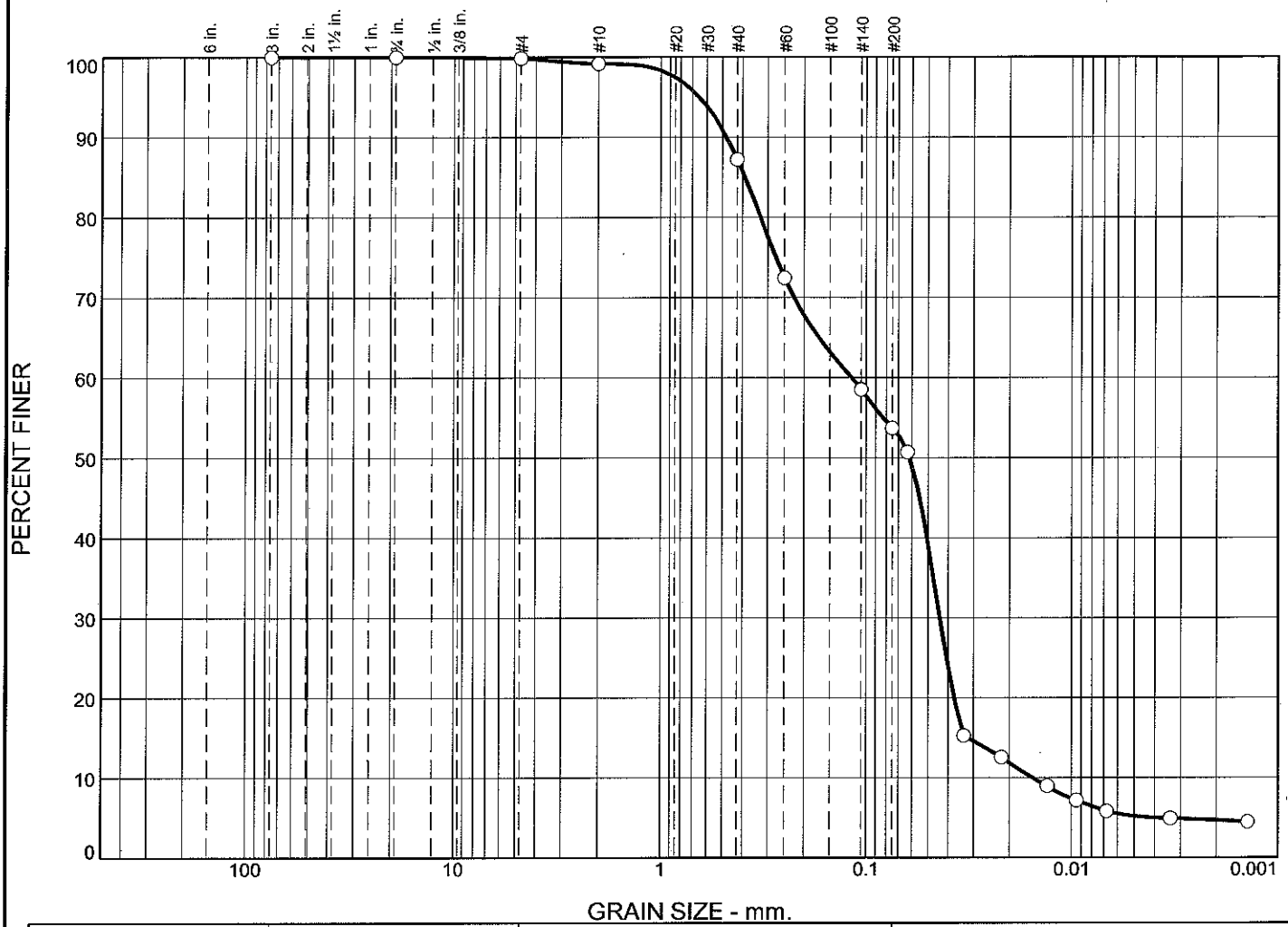
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	1.4	9.3	18.4	29.1	60.5	10.4	70.9

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0046	0.0088	0.0154	0.0347	0.0455	0.0519	0.2524	0.3351	0.4425	0.6786

Fineness Modulus	C_u	C_c
0.52	11.18	5.01

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.2	0.6	12.0	33.5	48.5	5.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3907	0.1181	0.0616	0.0438	0.0321	0.0154	1.05	7.64

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR-CA-CORE **Sample No.:** L1629119-11

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR-CA-CORE

Sample Number: L1629119-11

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 95.94
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
95.94	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.17	0.00	99.8
		#10	0.63	0.00	99.2
		#40	11.49	0.00	87.2
		#60	14.14	0.00	72.5
		#140	13.37	0.00	58.5
		#200	4.62	0.00	53.7
		#230	2.85	0.00	50.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 53.7
Weight of hydrometer sample =95.94
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0170	0.0136	16.0	12.1	0.0335	15.3
5.00	20.0	1.0130	1.0140	0.0136	13.0	12.9	0.0219	12.6
15.00	20.0	1.0090	1.0100	0.0136	9.0	13.9	0.0131	9.0
30.00	20.0	1.0070	1.0080	0.0136	7.0	14.4	0.0095	7.2
60.00	20.0	1.0055	1.0065	0.0136	5.5	14.8	0.0068	5.8
250.00	20.0	1.0045	1.0055	0.0136	4.5	15.1	0.0034	4.9
1440.00	20.0	1.0040	1.0050	0.0136	4.0	15.2	0.0014	4.5

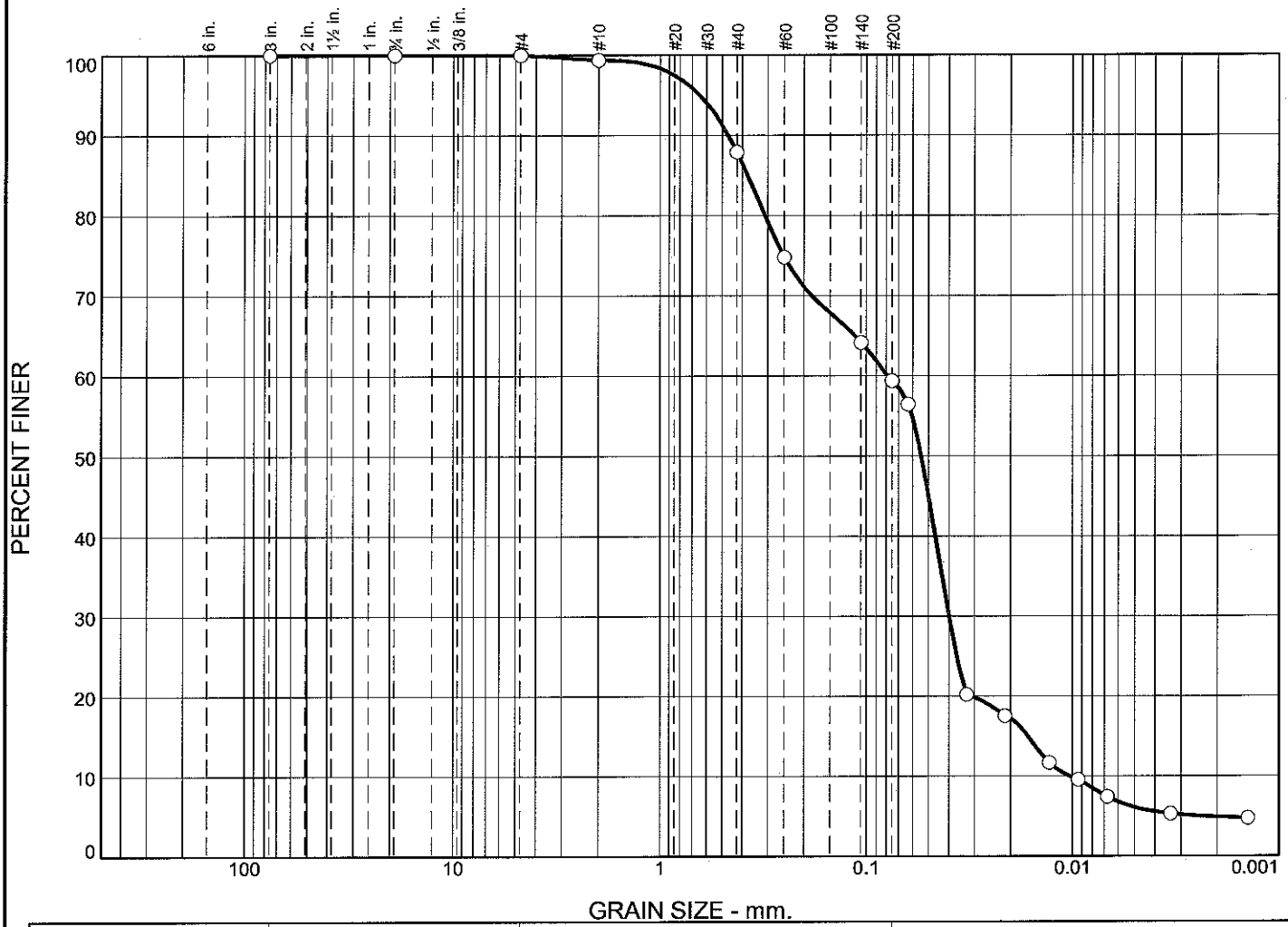
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.2	0.2	0.6	12.0	33.5	46.1	48.5	5.2	53.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0154	0.0321	0.0373	0.0438	0.0616	0.1181	0.3280	0.3907	0.4810	0.6541

Fineness Modulus	C_u	C_c
0.68	7.64	1.05

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.6	11.5	28.5	53.3	6.1

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3774	0.0789	0.0544	0.0399	0.0165	0.0102	1.98	7.71

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR-CB-CORE **Sample No.:** L1629119-12

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR-CB-CORE

Sample Number: L1629119-12

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 89.52
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
89.52	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.55	0.00	99.4
		#40	10.30	0.00	87.9
		#60	11.72	0.00	74.8
		#140	9.52	0.00	64.2
		#200	4.28	0.00	59.4
		#230	2.63	0.00	56.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 59.4
Weight of hydrometer sample =89.52
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0180	1.0190	0.0136	18.0	11.5	0.0328	20.2
5.00	20.0	1.0155	1.0165	0.0136	15.5	12.2	0.0213	17.5
15.00	20.0	1.0100	1.0110	0.0136	10.0	13.6	0.0130	11.7
30.00	20.0	1.0080	1.0090	0.0136	8.0	14.2	0.0094	9.6
60.00	20.0	1.0060	1.0070	0.0136	6.0	14.7	0.0068	7.4
250.00	20.0	1.0040	1.0050	0.0136	4.0	15.2	0.0034	5.3
1440.00	20.0	1.0035	1.0045	0.0136	3.5	15.4	0.0014	4.8

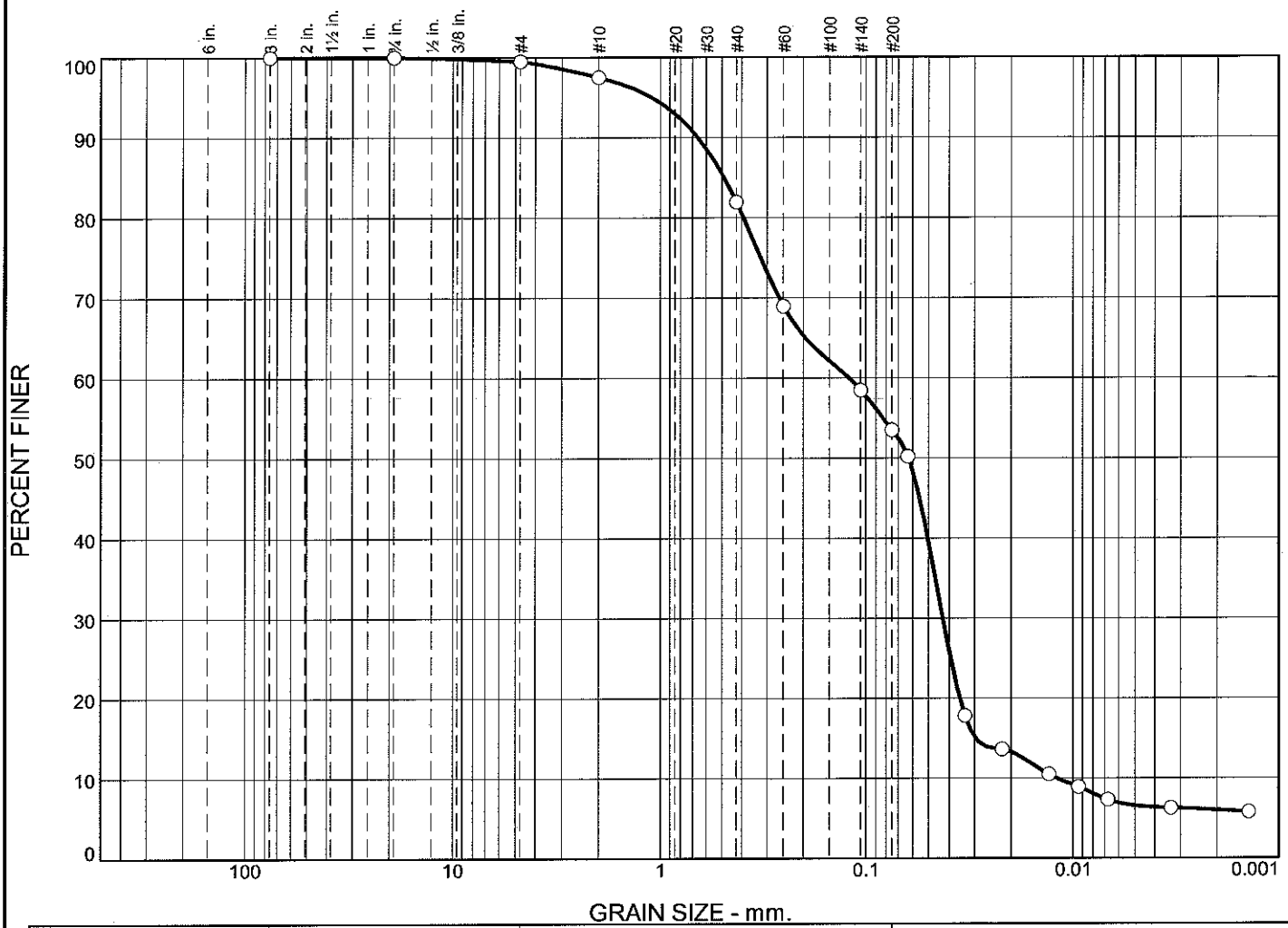
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.6	11.5	28.5	40.6	53.3	6.1	59.4

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0102	0.0165	0.0310	0.0399	0.0544	0.0789	0.3115	0.3774	0.4696	0.6471

Fineness Modulus	C_u	C_c
0.61	7.71	1.98

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	2.0	15.6	28.4	46.9	6.6

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4901	0.1209	0.0626	0.0428	0.0297	0.0120	1.26	10.04

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR-CC-CORE **Sample No.:** L1629119-13

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR-CC-CORE

Sample Number: L1629119-13

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 81.74
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
81.74	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.44	0.00	99.5
		#10	1.61	0.00	97.5
		#40	12.73	0.00	81.9
		#60	10.62	0.00	68.9
		#140	8.54	0.00	58.5
		#200	4.07	0.00	53.5
		#230	2.70	0.00	50.2

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 53.5
Weight of hydrometer sample =81.74
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0170	0.0136	16.0	12.1	0.0335	17.8
5.00	20.0	1.0120	1.0130	0.0136	12.0	13.1	0.0221	13.6
15.00	20.0	1.0090	1.0100	0.0136	9.0	13.9	0.0131	10.5
30.00	20.0	1.0075	1.0085	0.0136	7.5	14.3	0.0094	8.9
60.00	20.0	1.0060	1.0070	0.0136	6.0	14.7	0.0068	7.3
250.00	20.0	1.0050	1.0060	0.0136	5.0	15.0	0.0033	6.3
1440.00	20.0	1.0045	1.0055	0.0136	4.5	15.1	0.0014	5.8

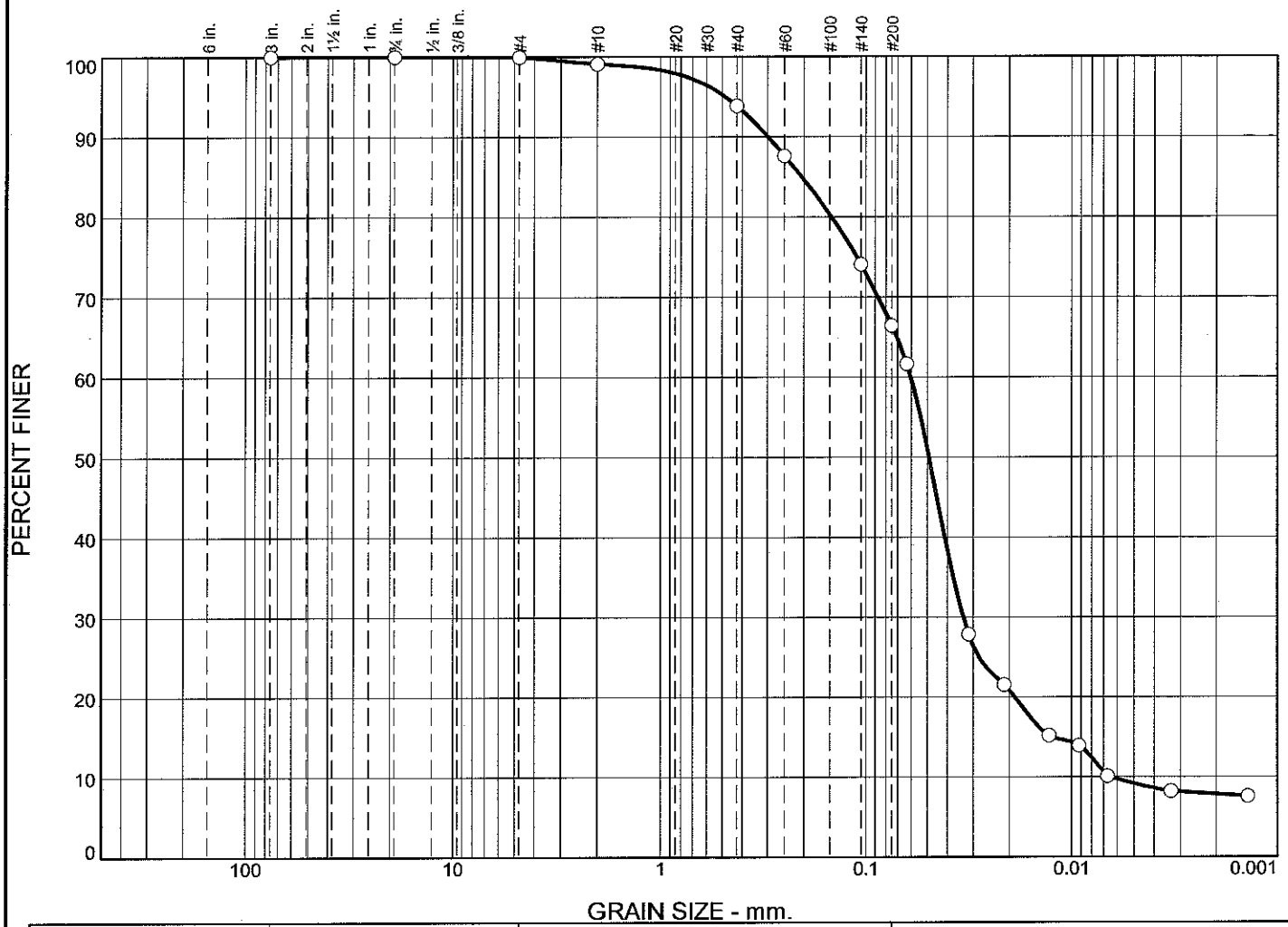
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.5	0.5	2.0	15.6	28.4	46.0	46.9	6.6	53.5

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0120	0.0297	0.0355	0.0428	0.0626	0.1209	0.3927	0.4901	0.6608	1.1053

Fineness Modulus	C_u	C_c
0.84	10.04	1.26

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	0.8	5.2	27.5	57.2	9.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.2059	0.0603	0.0492	0.0336	0.0125	0.0065	2.88	9.30

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR AC-CA-CORE **Sample No.:** L1629119-14

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR AC-CA-CORE

Sample Number: L1629119-14

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 84.10
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
84.10	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.05	0.00	99.9
		#10	0.71	0.00	99.1
		#40	4.40	0.00	93.9
		#60	5.26	0.00	87.6
		#140	11.39	0.00	74.1
		#200	6.43	0.00	66.4
		#230	4.02	0.00	61.6

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 66.4
Weight of hydrometer sample =84.10
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0210	1.0220	0.0136	21.0	10.7	0.0316	27.9
5.00	20.0	1.0160	1.0170	0.0136	16.0	12.1	0.0212	21.5
15.00	20.0	1.0110	1.0120	0.0136	11.0	13.4	0.0129	15.2
30.00	20.0	1.0100	1.0110	0.0136	10.0	13.6	0.0092	13.9
60.00	20.0	1.0070	1.0080	0.0136	7.0	14.4	0.0067	10.1
250.00	20.0	1.0055	1.0065	0.0136	5.5	14.8	0.0033	8.2
1440.00	20.0	1.0050	1.0060	0.0136	5.0	15.0	0.0014	7.6

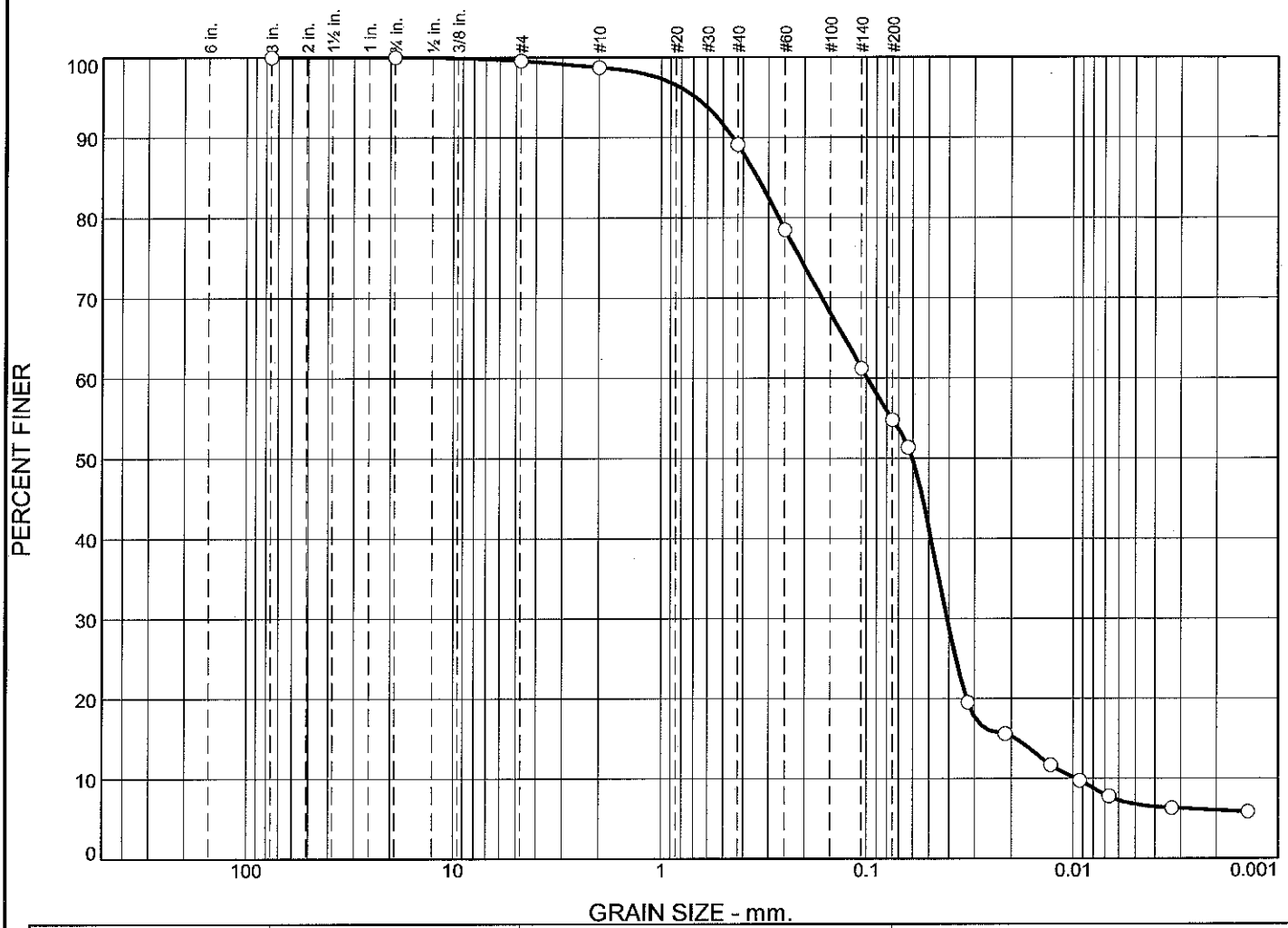
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	0.8	5.2	27.5	33.5	57.2	9.2	66.4

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0065	0.0125	0.0189	0.0336	0.0492	0.0603	0.1472	0.2059	0.3008	0.4846

Fineness Modulus	C_u	C_c
0.36	9.30	2.88

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	0.8	9.6	34.3	48.0	6.8

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3410	0.0996	0.0604	0.0410	0.0190	0.0097	1.73	10.24

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR AC-CB-CORE **Sample No.:** L1629119-15

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR AC-CB-CORE

Sample Number: L1629119-15

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 90.10
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
90.10	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.41	0.00	99.5
		#10	0.74	0.00	98.7
		#40	8.66	0.00	89.1
		#60	9.59	0.00	78.5
		#140	15.53	0.00	61.2
		#200	5.79	0.00	54.8
		#230	3.09	0.00	51.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 54.8
Weight of hydrometer sample =90.10
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0190	1.0200	0.0136	19.0	11.3	0.0324	19.5
5.00	20.0	1.0150	1.0160	0.0136	15.0	12.3	0.0214	15.6
15.00	20.0	1.0110	1.0120	0.0136	11.0	13.4	0.0129	11.7
30.00	20.0	1.0090	1.0100	0.0136	9.0	13.9	0.0093	9.7
60.00	20.0	1.0070	1.0080	0.0136	7.0	14.4	0.0067	7.8
250.00	20.0	1.0055	1.0065	0.0136	5.5	14.8	0.0033	6.3
1440.00	20.0	1.0050	1.0060	0.0136	5.0	15.0	0.0014	5.8

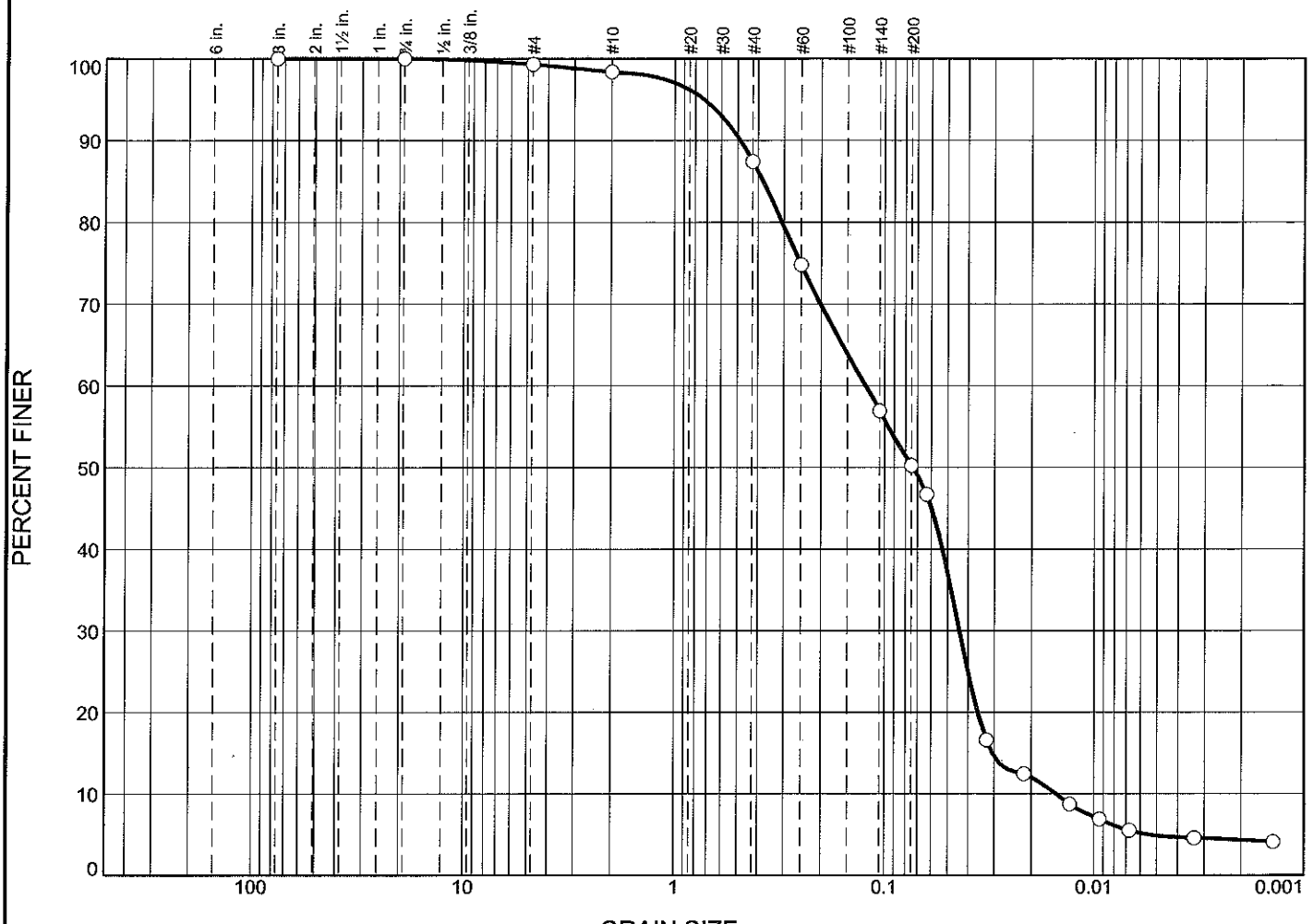
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.5	0.5	0.8	9.6	34.3	44.7	48.0	6.8	54.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0097	0.0190	0.0329	0.0410	0.0604	0.0996	0.2687	0.3410	0.4489	0.6834

Fineness Modulus	C_u	C_c
0.60	10.24	1.73

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.7	0.9	11.0	37.2	45.3	4.9

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3798	0.1237	0.0740	0.0440	0.0307	0.0153	1.03	8.09

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR AC-CC-CORE **Sample No.:** L1629119-16

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR AC-CC-CORE

Sample Number: L1629119-16

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 87.43
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
87.43	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.61	0.00	99.3
		#10	0.80	0.00	98.4
		#40	9.58	0.00	87.4
		#60	11.05	0.00	74.8
		#140	15.62	0.00	56.9
		#200	5.85	0.00	50.2
		#230	3.09	0.00	46.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 50.2
Weight of hydrometer sample =87.43
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0180	1.0180	0.0136	18.0	11.5	0.0328	16.6
5.00	20.0	1.0135	1.0135	0.0136	13.5	12.7	0.0218	12.4
15.00	20.0	1.0095	1.0095	0.0136	9.5	13.8	0.0131	8.7
30.00	20.0	1.0075	1.0075	0.0136	7.5	14.3	0.0094	6.9
60.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0068	5.5
250.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0033	4.6
1440.00	20.0	1.0045	1.0045	0.0136	4.5	15.1	0.0014	4.1

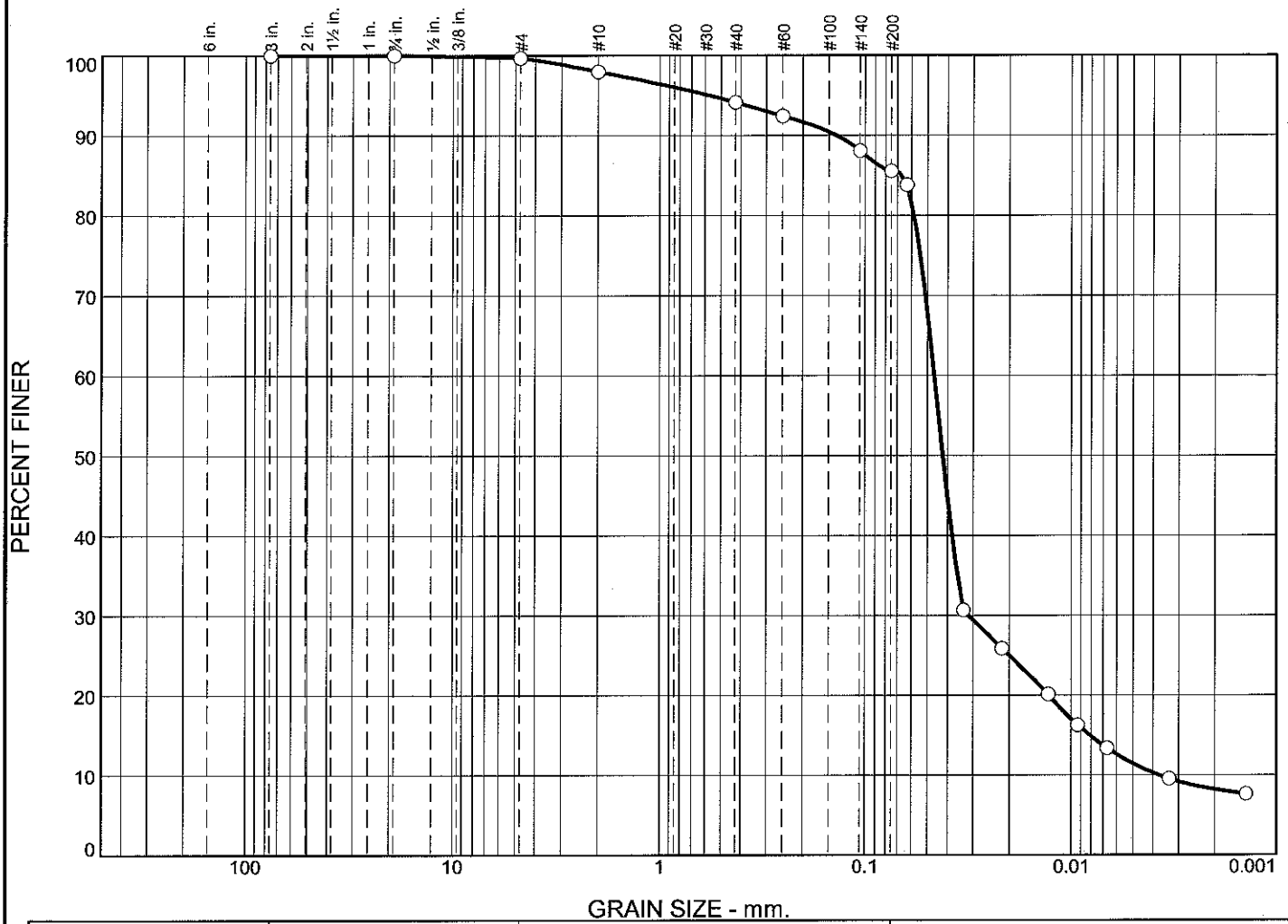
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.7	0.7	0.9	11.0	37.2	49.1	45.3	4.9	50.2

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0153	0.0307	0.0360	0.0440	0.0740	0.1237	0.3087	0.3798	0.4881	0.7257

Fineness Modulus	C_u	C_c
0.69	8.09	1.03

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.3	1.7	3.9	8.5	74.1	11.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0664	0.0464	0.0421	0.0315	0.0081	0.0037	5.72	12.41

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CA-CORE **Sample No.:** L1629119-18

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CA-CORE

Sample Number: L1629119-18

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 71.51
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
71.51	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.25	0.00	99.7
		#10	1.20	0.00	98.0
		#40	2.74	0.00	94.1
		#60	1.24	0.00	92.4
		#140	3.11	0.00	88.1
		#200	1.79	0.00	85.6
		#230	1.25	0.00	83.8

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 85.6
Weight of hydrometer sample =71.51
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0335	30.7
5.00	20.0	1.0135	1.0135	0.0136	13.5	12.7	0.0218	25.9
15.00	20.0	1.0105	1.0105	0.0136	10.5	13.5	0.0130	20.1
30.00	20.0	1.0085	1.0085	0.0136	8.5	14.0	0.0093	16.3
60.00	20.0	1.0070	1.0070	0.0136	7.0	14.4	0.0067	13.4
250.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0033	9.6
1440.00	20.0	1.0040	1.0040	0.0136	4.0	15.2	0.0014	7.6

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.3	0.3	1.7	3.9	8.5	14.1	74.1	11.5	85.6

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0037	0.0081	0.0128	0.0315	0.0421	0.0464	0.0582	0.0664	0.1382	0.5703

Fineness Modulus	C_u	C_c
0.27	12.41	5.72

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 06 2016, 02:52 pm

Work Group: WG939468 for Department: 7 Wet Chemistry

Created: 06-OCT-16 Due: Operator: AR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-01	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-02	LDW-BA-SC-ENR-CB-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-03	LDW-BA-SC-ENR-CC-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-06	LDW-BA-SC-ENR+AC-CA-	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-07	LDW-BA-SC-ENR+AC-CB-	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 06 2016, 02:52 pm

Work Group: WG939468 for Department: 7 Wet Chemistry

Created: 06-OCT-16 Due: Operator: AR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-08	LDW-BA-SC-ENR+AC-CC-	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-11	LDW-BA-IN-ENR-CA-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-12	LDW-BA-IN-ENR-CB-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-13	LDW-BA-IN-ENR-CC-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-14	LDW-BA-IN-ENR+AC-CA-	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-15	LDW-BA-IN-ENR+AC-CB-	C	A2-HYDRO-CFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-TFINE	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-SFINE	SOIL	DONE	U		1006	S0	Glass-A.25

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Oct 06 2016, 02:52 pm

Work Group: WG939468 for Department: 7 Wet Chemistry

Created: 06-OCT-16 Due: Operator: AR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-MSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-FSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-TSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-CSAND	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-COBBLES	SOIL	DONE	U		1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U		1006	S0	Glass-A.25

L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-CFINE	SOIL	DONE	U	1006	S0	Glass-A.25
L1629119-16	LDW-BA-IN-ENR+AC-CC-	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U	1006	S0	Glass-A.25
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-TSAND	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-TGRAVEL	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-TFINE	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-SFINE	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-MSAND	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-FSAND	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-FGRAVEL	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-CSAND	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-COBBLES	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-CFINE	SOIL	DONE	U	1006	S0	Plastic-A-GS
L1629119-18	LDW-BA-SC-ENR-CA-COR	C	A2-HYDRO-CGRAVEL	SOIL	DONE	U	1006	S0	Plastic-A-GS
WG939468-1	Duplicate Sample	S	A2-HYDRO-CSAND	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-FGRAVEL	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-MSAND	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-FSAND	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-CGRAVEL	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-TSAND	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-TGRAVEL	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-COBBLES	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-CFINE	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-SFINE	SOIL	DONE	U			
WG939468-1	Duplicate Sample	S	A2-HYDRO-TFINE	SOIL	DONE	U			

Comments:

WG939468-1 L1629119-01

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1629119
Client:	Floyd Snider Inc 601 Union Street Suite 600 Seattle, WA 98101
ATTN:	Teri Floyd
Phone:	(206) 292-2078
Project Name:	LDW/AC PILOT STUDY
Project Number:	LY15160310
Report Date:	10/06/16

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1629119-01	LDW-BA-SC-ENR-CA-CORE	SEDIMENT	LDW	09/10/16 13:05	09/15/16
L1629119-02	LDW-BA-SC-ENR-CB-CORE	SEDIMENT	LDW	09/10/16 12:10	09/15/16
L1629119-03	LDW-BA-SC-ENR-CC-CORE	SEDIMENT	LDW	09/10/16 12:25	09/15/16
L1629119-04	LDW-BA-SC-ENR-CD-CORE	SEDIMENT	LDW	09/10/16 13:35	09/15/16
L1629119-05	LDW-BA-SC-ENR-CE-CORE	SEDIMENT	LDW	09/12/16 11:45	09/15/16
L1629119-06	LDW-BA-SC-ENR+AC-CA-CORE	SEDIMENT	LDW	09/09/16 10:08	09/15/16
L1629119-07	LDW-BA-SC-ENR+AC-CB-CORE	SEDIMENT	LDW	09/09/16 09:45	09/15/16
L1629119-08	LDW-BA-SC-ENR+AC-CC-CORE	SEDIMENT	LDW	09/09/16 16:00	09/15/16
L1629119-09	LDW-BA-SC-ENR+AC-CD-CORE	SEDIMENT	LDW	09/09/16 16:30	09/15/16
L1629119-10	LDW-BA-SC-ENR+AC-CE-CORE	SEDIMENT	LDW	09/09/16 16:50	09/15/16
L1629119-11	LDW-BA-IN-ENR-CA-CORE	SEDIMENT	LDW	09/14/16 11:30	09/15/16
L1629119-12	LDW-BA-IN-ENR-CB-CORE	SEDIMENT	LDW	09/14/16 10:40	09/15/16
L1629119-13	LDW-BA-IN-ENR-CC-CORE	SEDIMENT	LDW	09/14/16 11:42	09/15/16
L1629119-14	LDW-BA-IN-ENR+AC-CA-CORE	SEDIMENT	LDW	09/14/16 10:20	09/15/16
L1629119-15	LDW-BA-IN-ENR+AC-CB-CORE	SEDIMENT	LDW	09/14/16 10:55	09/15/16
L1629119-16	LDW-BA-IN-ENR+AC-CC-CORE	SEDIMENT	LDW	09/14/16 09:57	09/15/16
L1629119-17	LDW-BA-IN-ENR+AC-CD-CORE	SEDIMENT	LDW	09/13/16 11:40	09/15/16
L1629119-18	LDW-BA-SC-ENR-CA-CORE	SOIL	LDW	09/10/16 13:05	09/15/16

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119
Project Number: LY15160310 **Report Date:** 10/06/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119
Project Number: LY15160310 **Report Date:** 10/06/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

Per client request, sample L1629119-01 was also logged as L1629119-18 for a grain size "triplicate". In addition, per client request, samples L1629119-04, -05, -09, -10, and -17, were placed on hold, and were not analyzed.

Black Carbon

The WG939414-4/-5 MS/MSD RPD, performed on L1629119-01, is outside the acceptance criteria for % Soot (Rep 1) (28%).

Total Organic Carbon

The WG939422-5 MSD recovery, performed on L1629119-01, is outside the acceptance criteria for Total Organic Carbon (Rep2) (141%); however, the associated LCS recoveries are within overall method allowances. No further action was required.

Grain Size Analysis

The WG939468-1 Laboratory Duplicate RPDs, performed on L1629119-01, are outside the acceptance criteria for % Coarse Sand (119%), % Medium Sand (126%), % Fine Sand (23%), % Total Sand (76%), % Clay Fine (33%), and % Total Fines (21%). The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 10/06/16

INORGANICS
&
MISCELLANEOUS

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-01
Client ID: LDW-BA-SC-ENR-CA-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/10/16 13:05
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.60		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	2.54		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.100		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.100		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	1.10		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	3.20		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	9.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	13.6		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	66.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	20.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	86.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.317		%	0.010	NA	1	-	10/05/16 12:03	91,-	AR
% Soot (Rep 2)	0.280		%	0.010	NA	1	-	10/05/16 12:03	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-02
Client ID: LDW-BA-SC-ENR-CB-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/10/16 12:10
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.80		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	2.61		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	0.600		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	1.90		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	8.50		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	11.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	73.8		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	15.2		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	89.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.148		%	0.010	NA	1	-	10/05/16 12:44	91,-	AR
% Soot (Rep 2)	0.141		%	0.010	NA	1	-	10/05/16 12:44	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-03
Client ID: LDW-BA-SC-ENR-CC-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/10/16 12:25
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	3.05		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	2.55		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	2.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	11.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	12.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	26.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	62.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	11.9		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	74.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.148		%	0.010	NA	1	-	10/05/16 13:20	91,-	AR
% Soot (Rep 2)	0.181		%	0.010	NA	1	-	10/05/16 13:20	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-06
Client ID: LDW-BA-SC-ENR+AC-CA-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/09/16 10:08
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.27		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	2.14		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	8.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	8.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	4.10		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	12.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	17.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	34.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	49.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	8.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	57.6		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.242		%	0.010	NA	1	-	10/05/16 14:31	91,-	AR
% Soot (Rep 2)	0.193		%	0.010	NA	1	-	10/05/16 14:31	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-07
Client ID: LDW-BA-SC-ENR+AC-CB-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/09/16 09:45
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.21		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	2.11		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.100		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.100		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	1.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	16.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	23.8		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	41.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	50.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	8.00		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	58.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.537		%	0.010	NA	1	-	10/05/16 13:40	91,-	AR
% Soot (Rep 2)	0.449		%	0.010	NA	1	-	10/05/16 13:40	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-08
Client ID: LDW-BA-SC-ENR+AC-CC-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/09/16 16:00
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.03		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.72		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	1.40		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	9.30		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	18.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	29.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	60.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	10.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	70.9		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.344		%	0.010	NA	1	-	10/05/16 13:50	91,-	AR
% Soot (Rep 2)	0.402		%	0.010	NA	1	-	10/05/16 13:50	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-11
Client ID: LDW-BA-IN-ENR-CA-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/14/16 11:30
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.38		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.51		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.200		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.200		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	0.600		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	12.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	33.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	46.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	48.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	5.20		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	53.7		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.231		%	0.010	NA	1	-	10/05/16 14:41	91,-	AR
% Soot (Rep 2)	0.293		%	0.010	NA	1	-	10/05/16 14:41	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-12
Client ID: LDW-BA-IN-ENR-CB-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/14/16 10:40
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.29		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.28		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	0.600		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	11.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	28.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	40.6		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	53.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	6.10		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	59.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.073		%	0.010	NA	1	-	10/05/16 14:51	91,-	AR
% Soot (Rep 2)	0.059		%	0.010	NA	1	-	10/05/16 14:51	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-13
Client ID: LDW-BA-IN-ENR-CC-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/14/16 11:42
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.56		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.33		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.500		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.500		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	2.00		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	15.6		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	28.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	46.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	46.9		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	6.60		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	53.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.039		%	0.010	NA	1	-	10/05/16 15:54	91,-	AR
% Soot (Rep 2)	0.043		%	0.010	NA	1	-	10/05/16 15:54	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-14
Client ID: LDW-BA-IN-ENR+AC-CA-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/14/16 10:20
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.59		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.60		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.100		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.100		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	0.800		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	5.20		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	27.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	33.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	57.2		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	9.20		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	66.4		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.111		%	0.010	NA	1	-	10/05/16 15:11	91,-	AR
% Soot (Rep 2)	0.107		%	0.010	NA	1	-	10/05/16 15:11	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-15
Client ID: LDW-BA-IN-ENR+AC-CB-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/14/16 10:55
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.65		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.40		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.500		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.500		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	0.800		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	9.60		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	34.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	44.7		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	48.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	6.80		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	54.8		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.058		%	0.010	NA	1	-	10/05/16 15:33	91,-	AR
% Soot (Rep 2)	0.056		%	0.010	NA	1	-	10/05/16 15:33	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-16
Client ID: LDW-BA-IN-ENR+AC-CC-CORE
Sample Location: LDW
Matrix: Sediment

Date Collected: 09/14/16 09:57
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	1.47		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	1.43		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.700		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.700		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	0.900		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	11.0		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	37.2		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	49.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	45.3		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	4.90		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	50.2		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.119		%	0.010	NA	1	-	10/05/16 15:44	91,-	AR
% Soot (Rep 2)	0.110		%	0.010	NA	1	-	10/05/16 15:44	91,-	AR

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

SAMPLE RESULTS

Lab ID: L1629119-18
Client ID: LDW-BA-SC-ENR-CA-CORE
Sample Location: LDW
Matrix: Soil

Date Collected: 09/10/16 13:05
Date Received: 09/15/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Gravel	ND		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Gravel	0.300		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Gravel	0.300		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Coarse Sand	1.70		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Medium Sand	3.90		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Fine Sand	8.50		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Sand	14.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Silt Fine	74.1		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Clay Fine	11.5		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR
% Total Fines	85.6		%	0.100	NA	1	-	10/06/16 10:15	12,D422	AR

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119

Project Number: LY15160310 **Report Date:** 10/06/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab for sample(s): 01-03,06-08,11-16 Batch: WG939414-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	10/04/16 16:59	91,-	AR
% Soot (Rep 2)	ND		%	0.010	NA	1	-	10/04/16 16:59	91,-	AR
Total Organic Carbon - Mansfield Lab for sample(s): 01-03,06-08,11-16 Batch: WG939422-1										
Total Organic Carbon (Rep1)	ND		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR
Total Organic Carbon (Rep2)	ND		%	0.010	0.010	1	-	10/05/16 10:56	1,9060A	AR

Matrix Spike Analysis
Batch Quality Control

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03,06-08,11-16 QC Batch ID: WG939414-4 WG939414-5 QC Sample: L1629119-01 Client ID: LDW-BA-SC-ENR-CA-CORE												
% Soot (Rep 1)	0.317	0.758	1.03	94		1.36	101		75-125	**28**	Q	25
% Soot (Rep 2)	0.280	0.66	0.939	100		1.17	97		75-125	22		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-03,06-08,11-16 QC Batch ID: WG939422-4 WG939422-5 QC Sample: L1629119-01 Client ID: LDW-BA-SC-ENR-CA-CORE												
Total Organic Carbon (Rep1)	2.60	0.878	3.66	121		3.70	114		75-125	1		25
Total Organic Carbon (Rep2)	2.54	0.915	3.60	116		3.95	**141**	Q	75-125	9		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-03,06-08,11-16 QC Batch ID: WG939414-3 QC Sample: L1629119-01 Client ID: LDW-BA-SC-ENR-CA-CORE						
% Soot (Rep 1)	0.317	0.291	%	9		25
% Soot (Rep 2)	0.280	0.270	%	4		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-03,06-08,11-16 QC Batch ID: WG939422-3 QC Sample: L1629119-01 Client ID: LDW-BA-SC-ENR-CA-CORE						
Total Organic Carbon (Rep1)	2.60	2.54	%	2		25
Total Organic Carbon (Rep2)	2.54	2.57	%	1		25
Grain Size Analysis - Mansfield Lab Associated sample(s): 01-03,06-08,11-16,18 QC Batch ID: WG939468-1 QC Sample: L1629119-01 Client ID: LDW-BA-SC-ENR-CA-CORE						
Cobbles	ND	ND	%	NC		20
% Coarse Gravel	ND	ND	%	NC		20
% Fine Gravel	0.100	0.100	%	0		20
% Total Gravel	0.100	0.100	%	0		20
% Coarse Sand	1.10	4.30	%	**119**	Q	20
% Medium Sand	3.20	14.1	%	**126**	Q	20
% Fine Sand	9.30	11.7	%	**23**	Q	20
% Total Sand	13.6	30.1	%	**76**	Q	20
% Silt Fine	66.3	55.5	%	18		20
% Clay Fine	20.0	14.3	%	**33**	Q	20
% Total Fines	86.3	69.8	%	**21**	Q	20

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119

Project Number: LY15160310 **Report Date:** 10/06/16

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG939414-2

Parameter	% Recovery	Qual	QC Criteria
% Soot (Rep 1)	108		75-125
% Soot (Rep 2)	108		75-125

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119

Project Number: LY15160310 **Report Date:** 10/06/16

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG939422-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	111		75-125
Total Organic Carbon (Rep2)	99		75-125

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1629119-01A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-01B	Glass 500ml/16oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-02A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-02B	Glass 500ml/16oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-03A	Glass 500ml/16oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-03B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-04A	Glass 500ml/16oz unpreserved	A	N/A	2.0	Y	Absent	HOLD()
L1629119-04B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	HOLD()
L1629119-05A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	HOLD()
L1629119-05B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	HOLD()

*Values in parentheses indicate holding time in days

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1629119-06A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-06B	Glass 500ml/16oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-07A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-07B	Glass 500ml/16oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-08A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-08B	Glass 500ml/16oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-09A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	HOLD()
L1629119-09B	Glass 500ml/16oz unpreserved	B	N/A	2.2	Y	Absent	HOLD()
L1629119-10A	Glass 500ml/16oz unpreserved	A	N/A	2.0	Y	Absent	HOLD()
L1629119-10B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	HOLD()
L1629119-11A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-11B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()

*Values in parentheses indicate holding time in days

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1629119-12A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-12B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-13A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-13B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-14A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-14B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-15A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)
L1629119-15B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-16A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-SOOT(28),A2-TOC-9060-2REPS(28)

*Values in parentheses indicate holding time in days

Project Name: LDW/AC PILOT STUDY
Project Number: LY15160310

Lab Number: L1629119
Report Date: 10/06/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1629119-16B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()
L1629119-17A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	HOLD()
L1629119-17B	Glass 250ml/8oz unpreserved	B	N/A	2.2	Y	Absent	HOLD()
L1629119-18A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLES(),A2-HYDRO-FGRAVEL()

*Values in parentheses indicate holding time in days

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119

Project Number: LY15160310 **Report Date:** 10/06/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name: LDW/AC PILOT STUDY **Lab Number:** L1629119

Project Number: LY15160310 **Report Date:** 10/06/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

12 Annual Book of ASTM Standards. (American Society for Testing and Materials) ASTM International.

91 Analysis of Soot following ES&T publications by Accardi-Dey and Gschwend, 2003; and Gustafsson (et. al.), 1997.

LIMITATION OF LIABILITIES

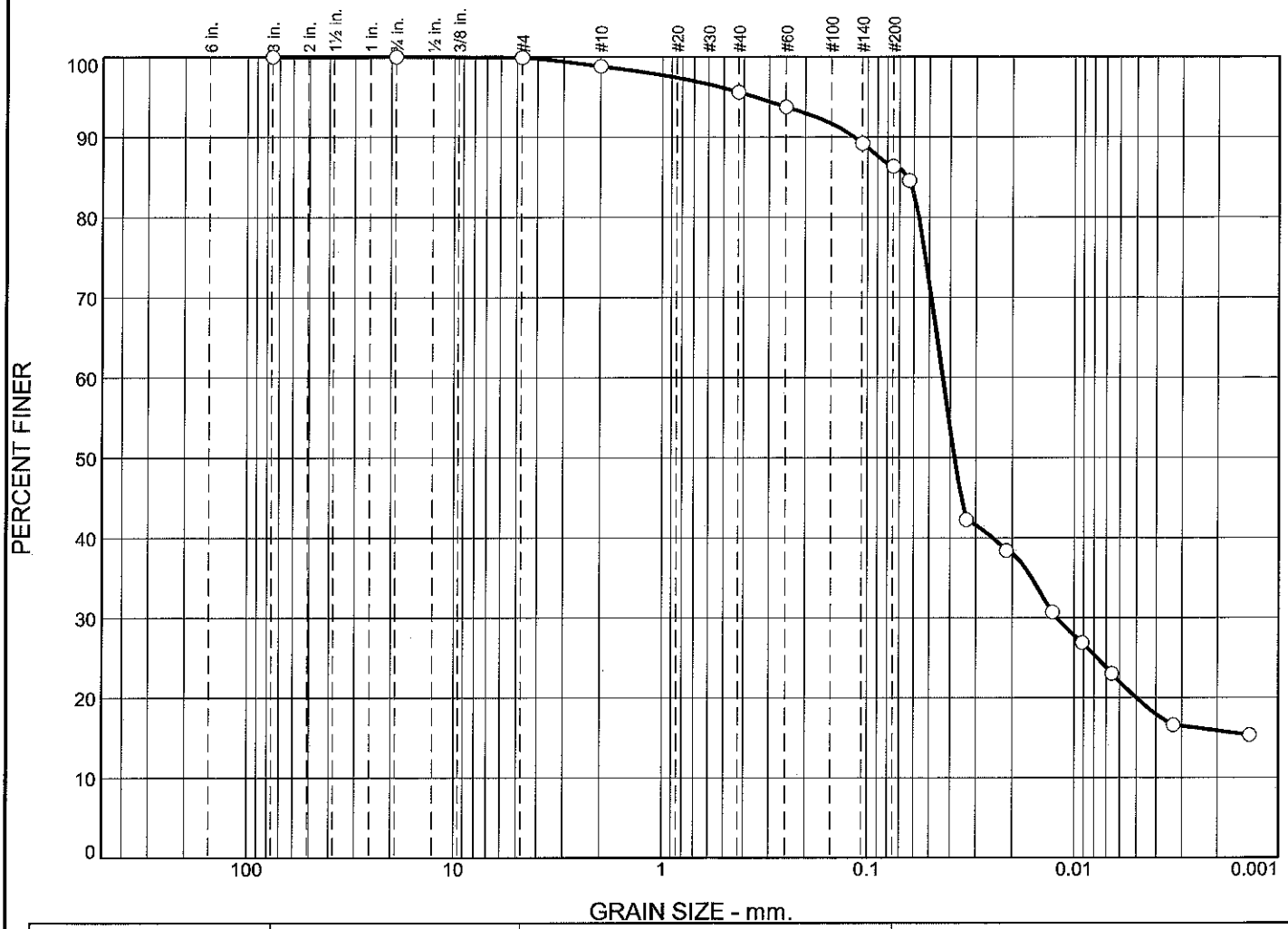
Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

ASTM D422-63

GRAIN SIZE ANALYSIS

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	1.1	3.2	9.3	66.3	20.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0641	0.0433	0.0381	0.0122				

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CA-CORE **Sample No.:** L1629119-01

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CA-CORE

Sample Number: L1629119-01

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 54.05
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
54.05	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.05	0.00	99.9
		#10	0.59	0.00	98.8
		#40	1.74	0.00	95.6
		#60	1.00	0.00	93.7
		#140	2.46	0.00	89.2
		#200	1.54	0.00	86.3
		#230	0.96	0.00	84.6

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 86.3
Weight of hydrometer sample =54.05
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0165	1.0165	0.0136	16.5	11.9	0.0333	42.3
5.00	20.0	1.0150	1.0150	0.0136	15.0	12.3	0.0214	38.4
15.00	20.0	1.0120	1.0120	0.0136	12.0	13.1	0.0128	30.7
30.00	20.0	1.0105	1.0105	0.0136	10.5	13.5	0.0092	26.9
60.00	20.0	1.0090	1.0090	0.0136	9.0	13.9	0.0066	23.0
250.00	20.0	1.0065	1.0065	0.0136	6.5	14.6	0.0033	16.6
1440.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0014	15.3

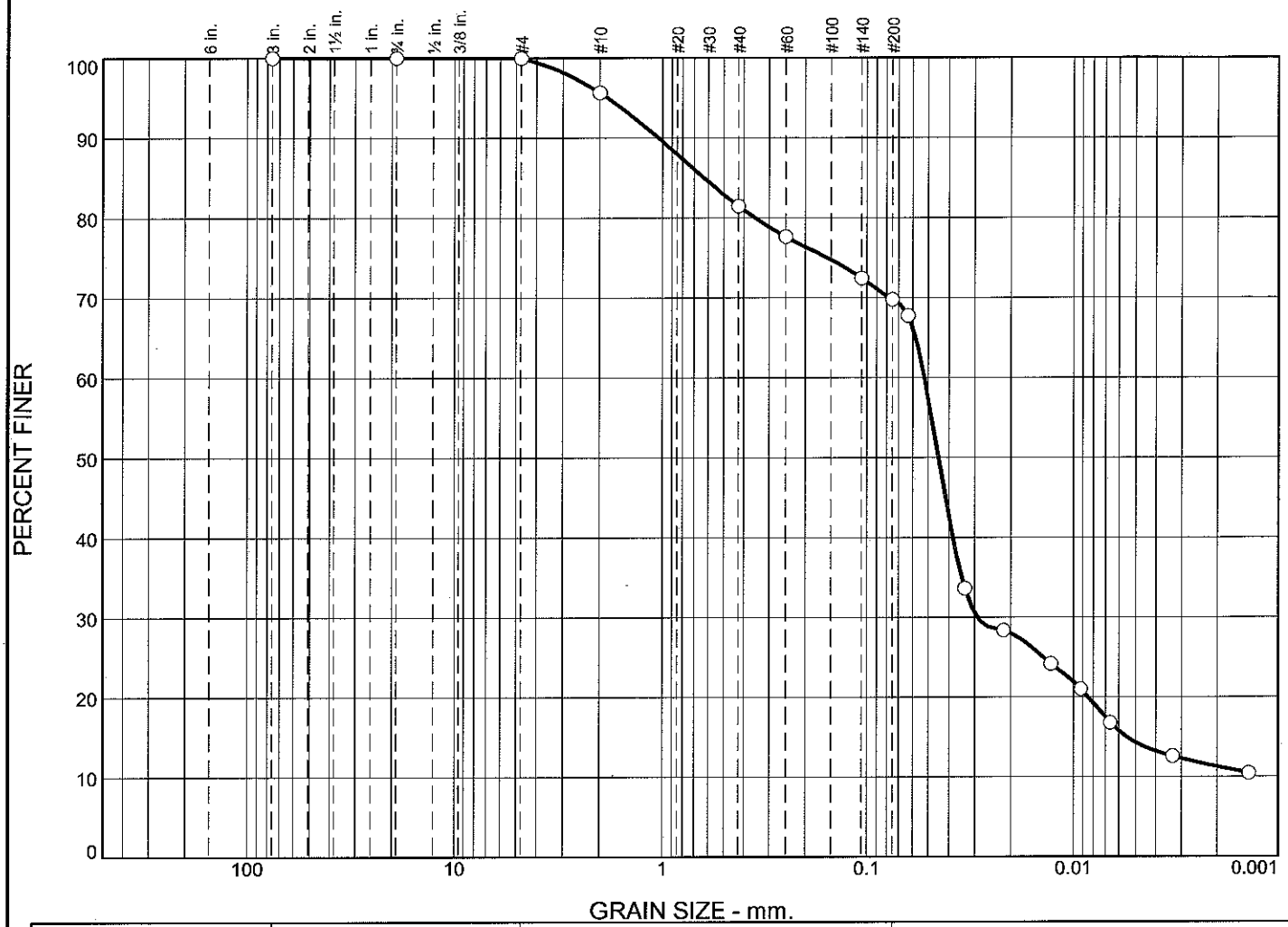
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	1.1	3.2	9.3	13.6	66.3	20.0	86.3

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
		0.0050	0.0122	0.0381	0.0433	0.0566	0.0641	0.1163	0.3557

Fineness Modulus
0.20

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	4.3	14.1	11.7	55.5	14.3

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.6284	0.0525	0.0448	0.0291	0.0055			

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CA-CORE **Sample No.:** WG939468-1

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CA-CORE

Sample Number: WG939468-1

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 53.20
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
53.20	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.03	0.00	99.9
		#10	2.29	0.00	95.6
		#40	7.54	0.00	81.5
		#60	2.04	0.00	77.6
		#140	2.77	0.00	72.4
		#200	1.41	0.00	69.8
		#230	1.08	0.00	67.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 69.8
Weight of hydrometer sample =53.20
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0335	33.6
5.00	20.0	1.0135	1.0135	0.0136	13.5	12.7	0.0218	28.4
15.00	20.0	1.0115	1.0115	0.0136	11.5	13.3	0.0128	24.2
30.00	20.0	1.0100	1.0100	0.0136	10.0	13.6	0.0092	21.0
60.00	20.0	1.0080	1.0080	0.0136	8.0	14.2	0.0066	16.8
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	12.6
1440.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0014	10.5

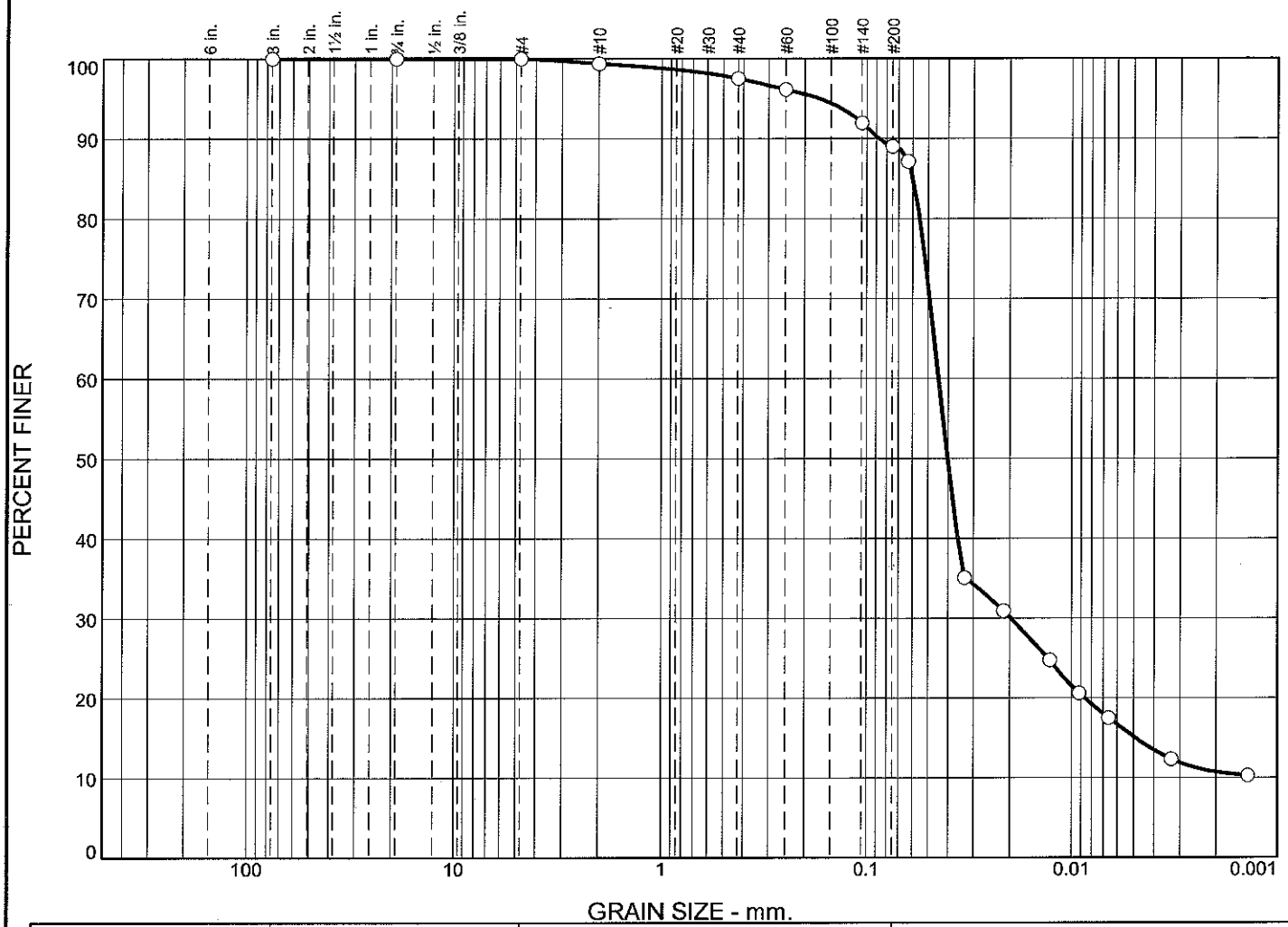
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	4.3	14.1	11.7	30.1	55.5	14.3	69.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0055	0.0085	0.0291	0.0448	0.0525	0.3535	0.6284	1.0501	1.8395

Fineness Modulus
0.74

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.6	1.9	8.5	73.8	15.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0599	0.0445	0.0402	0.0197	0.0049			

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CB-CORE **Sample No.:** L1629119-02

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CB-CORE

Sample Number: L1629119-02

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 69.16
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
69.16	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.43	0.00	99.4
		#40	1.31	0.00	97.5
		#60	0.93	0.00	96.1
		#140	2.92	0.00	91.9
		#200	2.02	0.00	89.0
		#230	1.30	0.00	87.1

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 89.0
Weight of hydrometer sample =69.16
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0170	1.0170	0.0136	17.0	11.8	0.0331	35.1
5.00	20.0	1.0150	1.0150	0.0136	15.0	12.3	0.0214	30.9
15.00	20.0	1.0120	1.0120	0.0136	12.0	13.1	0.0128	24.7
30.00	20.0	1.0100	1.0100	0.0136	10.0	13.6	0.0092	20.6
60.00	20.0	1.0085	1.0085	0.0136	8.5	14.0	0.0066	17.5
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	12.3
1440.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0014	10.3

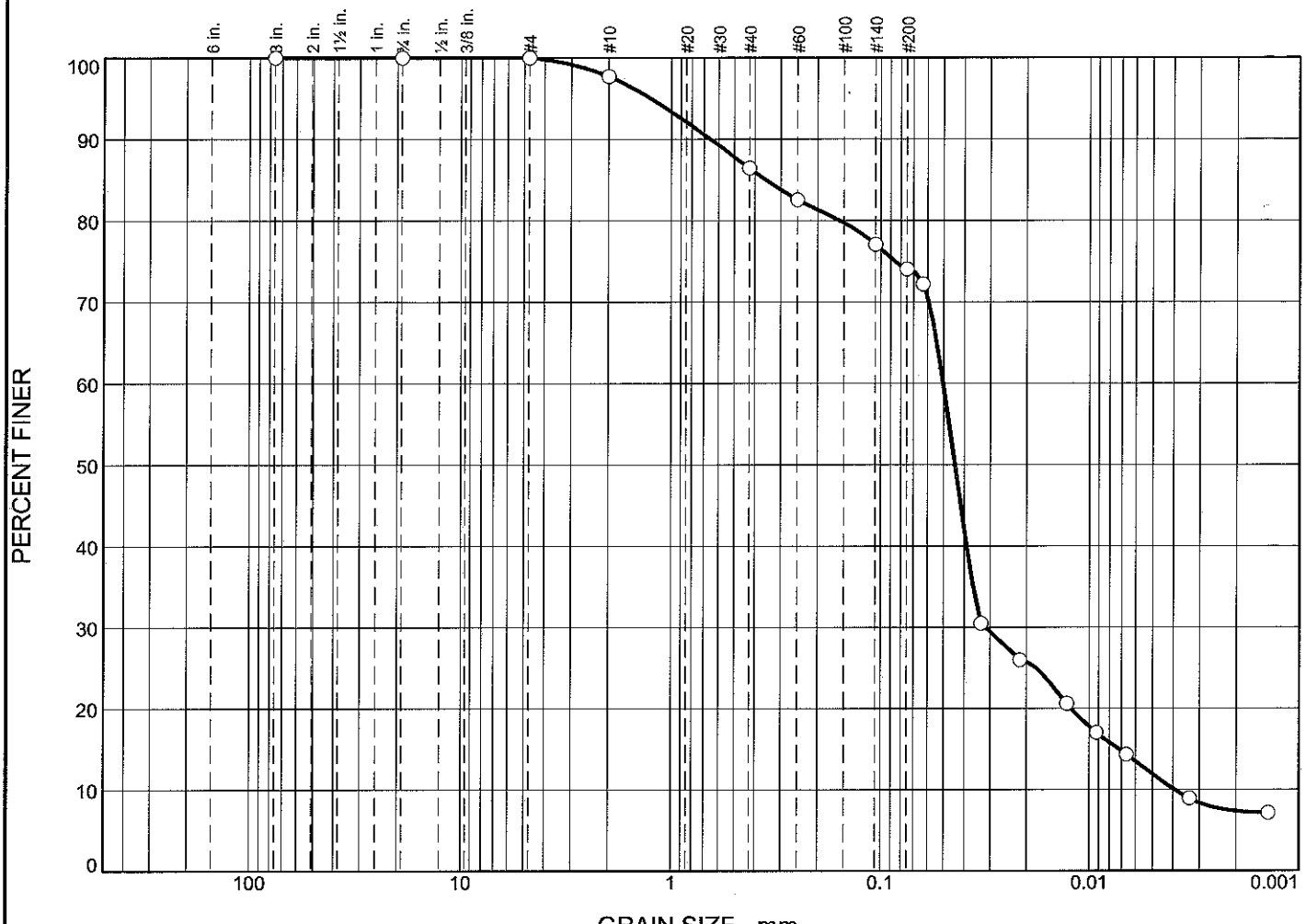
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.6	1.9	8.5	11.0	73.8	15.2	89.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0049	0.0087	0.0197	0.0402	0.0445	0.0553	0.0599	0.0878	0.1709

Fineness Modulus
0.12

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	2.3	11.3	12.4	62.1	11.9

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3543	0.0503	0.0442	0.0316	0.0072	0.0039	5.06	12.79

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CC-CORE **Sample No.:** L1629119-03

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CC-CORE

Sample Number: L1629119-03

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 66.20
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
66.20	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	1.52	0.00	97.7
		#40	7.46	0.00	86.4
		#60	2.56	0.00	82.6
		#140	3.64	0.00	77.1
		#200	2.00	0.00	74.0
		#230	1.23	0.00	72.2

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 74.0
Weight of hydrometer sample =66.20
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0170	1.0170	0.0136	17.0	11.8	0.0331	30.5
5.00	20.0	1.0145	1.0145	0.0136	14.5	12.5	0.0215	26.0
15.00	20.0	1.0115	1.0115	0.0136	11.5	13.3	0.0128	20.6
30.00	20.0	1.0095	1.0095	0.0136	9.5	13.8	0.0092	17.0
60.00	20.0	1.0080	1.0080	0.0136	8.0	14.2	0.0066	14.3
250.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0033	8.9
1440.00	20.0	1.0040	1.0040	0.0136	4.0	15.2	0.0014	7.1

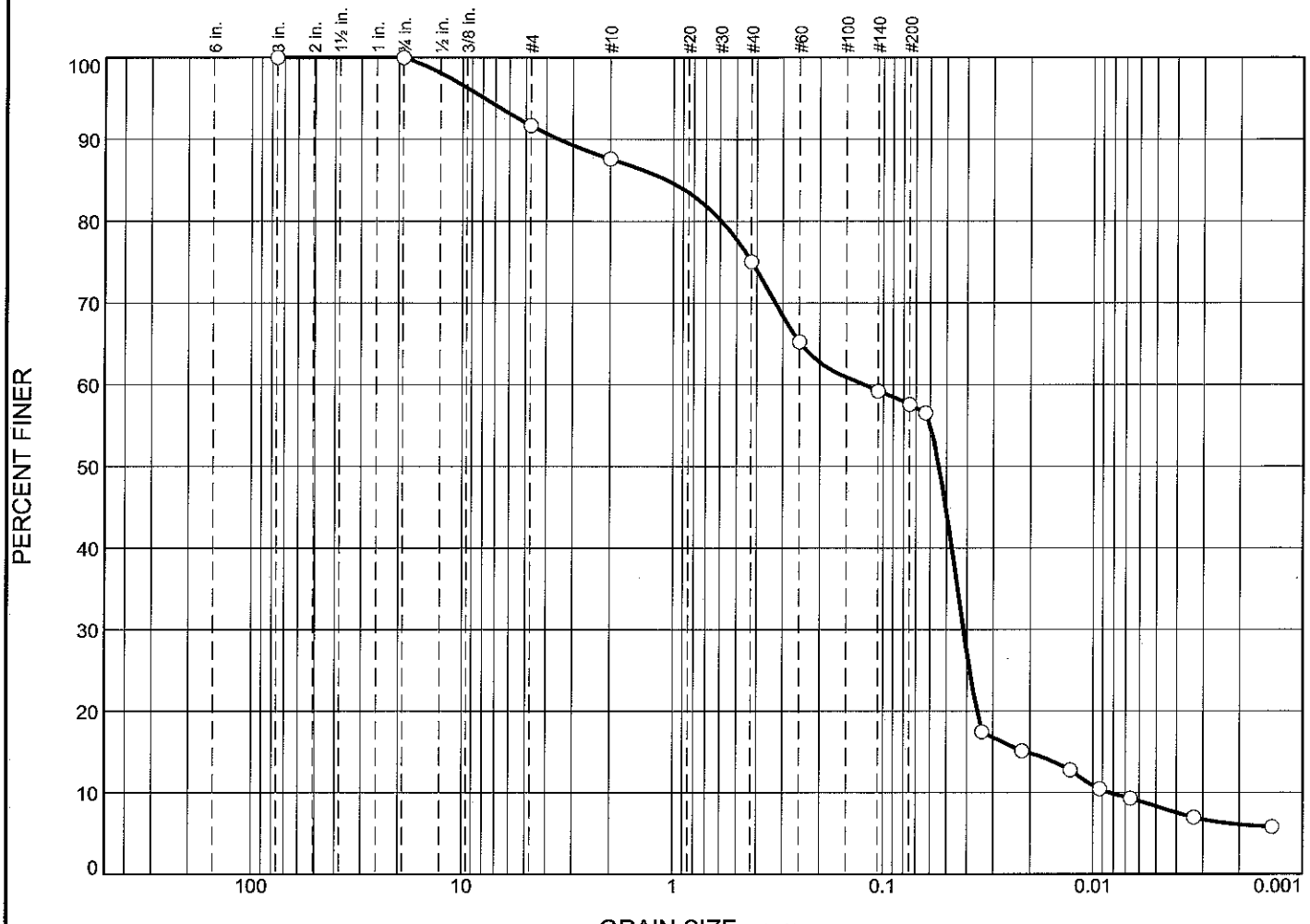
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	2.3	11.3	12.4	26.0	62.1	11.9	74.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0039	0.0072	0.0122	0.0316	0.0442	0.0503	0.1572	0.3543	0.6562	1.2583

Fineness Modulus	C_u	C_c
0.54	12.79	5.06

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	8.3	4.1	12.5	17.5	49.3	8.3

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			1.0747	0.1229	0.0544	0.0415	0.0210	0.0084	1.68	14.71

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR AC-CA-CORE **Sample No.:** L1629119-06

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR AC-CA-CORE

Sample Number: L1629119-06

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 79.33
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
79.33	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	6.60	0.00	91.7
		#10	3.24	0.00	87.6
		#40	9.95	0.00	75.1
		#60	7.80	0.00	65.2
		#140	4.77	0.00	59.2
		#200	1.30	0.00	57.6
		#230	0.84	0.00	56.5

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 57.6
Weight of hydrometer sample =79.33
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0150	1.0150	0.0136	15.0	12.3	0.0339	17.5
5.00	20.0	1.0130	1.0130	0.0136	13.0	12.9	0.0219	15.1
15.00	20.0	1.0110	1.0110	0.0136	11.0	13.4	0.0129	12.8
30.00	20.0	1.0090	1.0090	0.0136	9.0	13.9	0.0093	10.5
60.00	20.0	1.0080	1.0080	0.0136	8.0	14.2	0.0066	9.3
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	7.0
1440.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0014	5.8

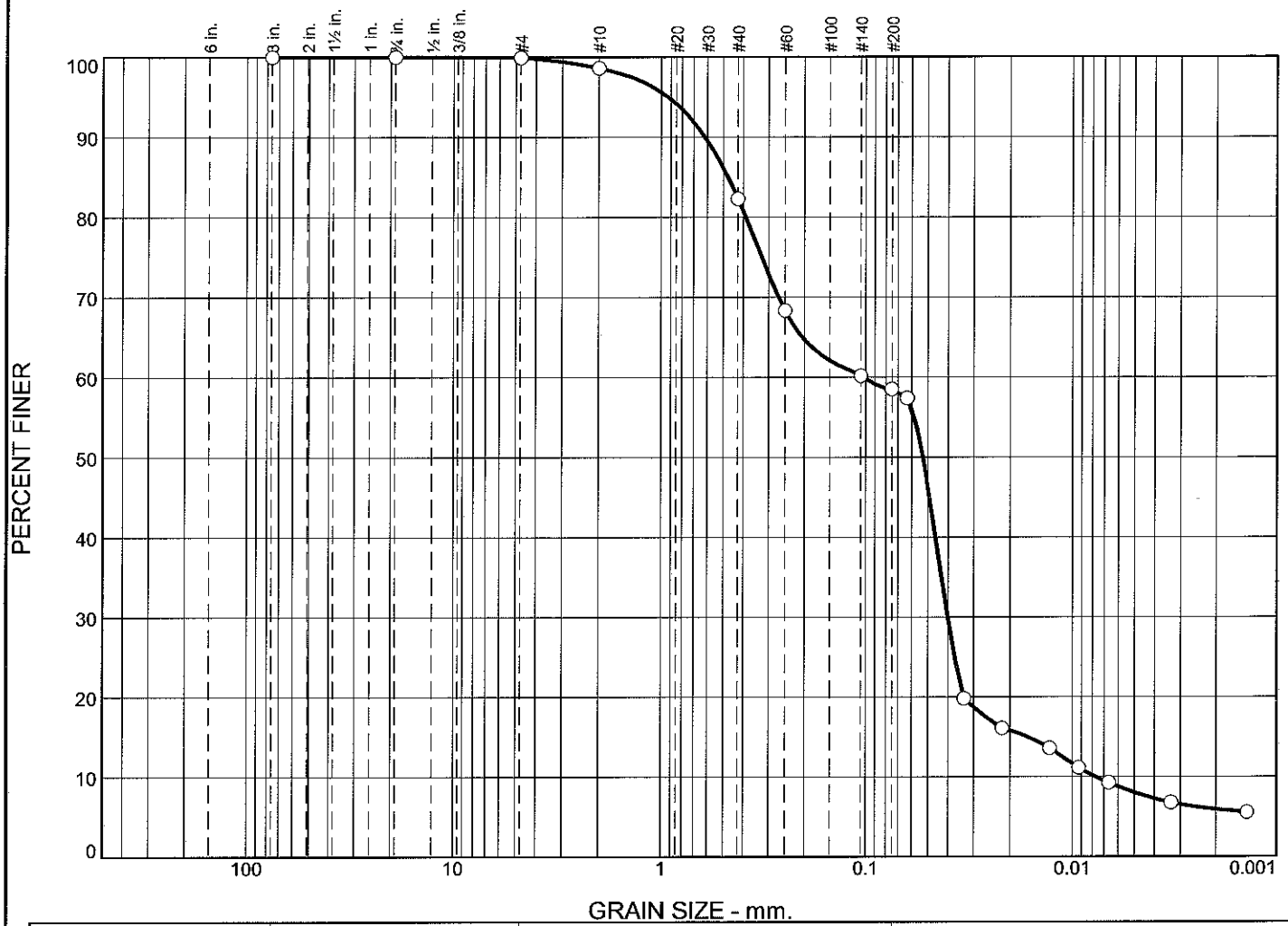
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	8.3	8.3	4.1	12.5	17.5	34.1	49.3	8.3	57.6

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0084	0.0210	0.0357	0.0415	0.0544	0.1229	0.5924	1.0747	3.4943	7.8620

Fineness Modulus	C_u	C_c
1.29	14.71	1.68

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	1.3	16.3	23.8	50.5	8.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4760	0.1032	0.0532	0.0401	0.0165	0.0077	2.02	13.42

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR AC-CB-CORE **Sample No.:** L1629119-07

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR AC-CB-CORE

Sample Number: L1629119-07

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 75.74
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
75.74	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.06	0.00	99.9
		#10	1.00	0.00	98.6
		#40	12.35	0.00	82.3
		#60	10.59	0.00	68.3
		#140	6.17	0.00	60.2
		#200	1.25	0.00	58.5
		#230	0.85	0.00	57.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 58.5
Weight of hydrometer sample =75.74
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0335	19.8
5.00	20.0	1.0130	1.0130	0.0136	13.0	12.9	0.0219	16.1
15.00	20.0	1.0110	1.0110	0.0136	11.0	13.4	0.0129	13.6
30.00	20.0	1.0090	1.0090	0.0136	9.0	13.9	0.0093	11.1
60.00	20.0	1.0075	1.0075	0.0136	7.5	14.3	0.0067	9.3
250.00	20.0	1.0055	1.0055	0.0136	5.5	14.8	0.0033	6.8
1440.00	20.0	1.0045	1.0045	0.0136	4.5	15.1	0.0014	5.6

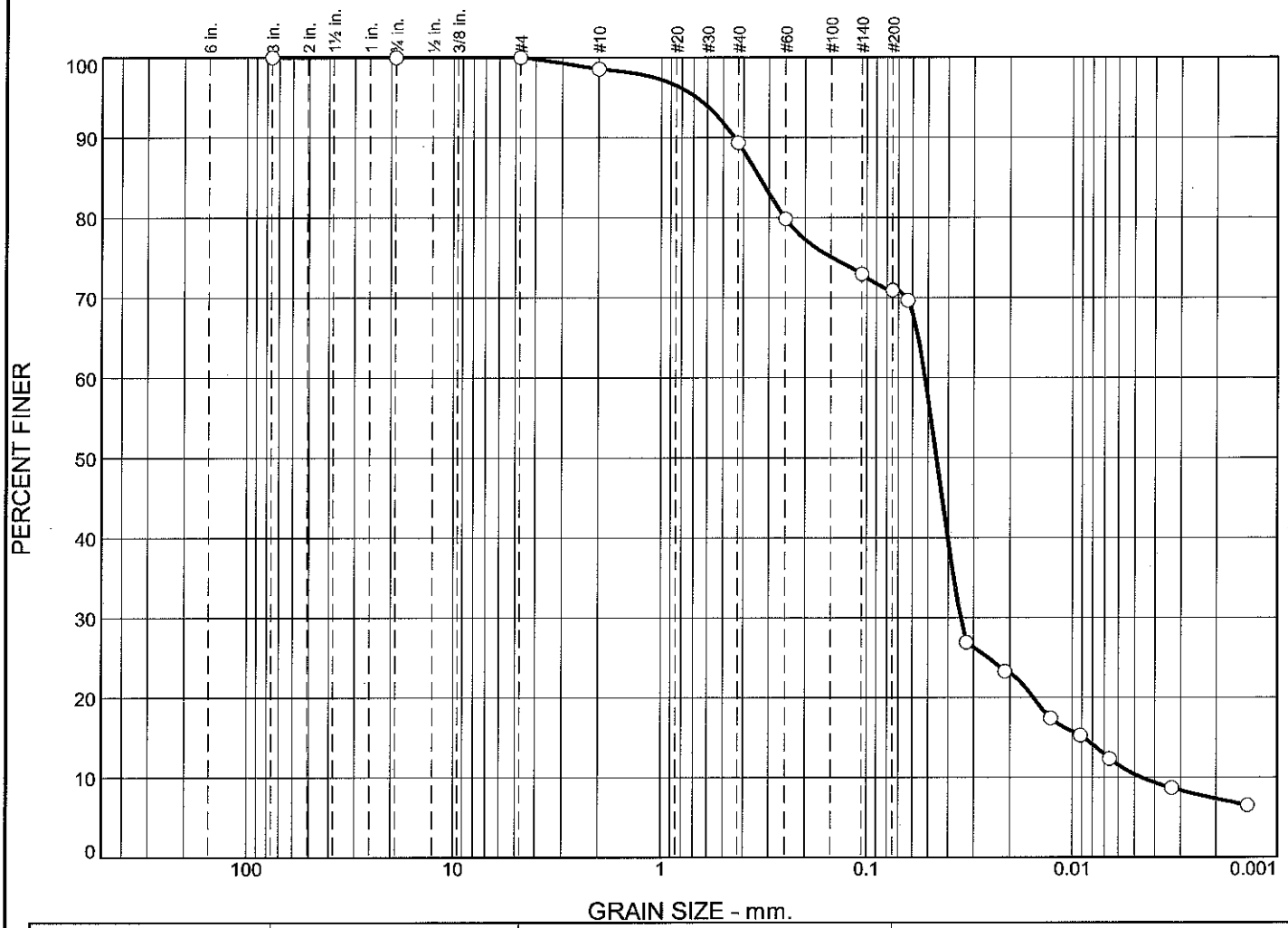
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	1.3	16.3	23.8	41.4	50.5	8.0	58.5

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0077	0.0165	0.0337	0.0401	0.0532	0.1032	0.3897	0.4760	0.6180	0.9310

Fineness Modulus	C_u	C_c
0.80	13.42	2.02

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	1.4	9.3	18.4	60.5	10.4

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3351	0.0519	0.0455	0.0347	0.0088	0.0046	5.01	11.18

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR AC-CC-CORE **Sample No.:** L1629119-08

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR AC-CC-CORE

Sample Number: L1629119-08

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 78.20
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
78.20	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	1.13	0.00	98.6
		#40	7.20	0.00	89.3
		#60	7.42	0.00	79.9
		#140	5.41	0.00	72.9
		#200	1.57	0.00	70.9
		#230	0.99	0.00	69.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 70.9
Weight of hydrometer sample =78.20
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0185	1.0185	0.0136	18.5	11.4	0.0326	26.9
5.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0212	23.3
15.00	20.0	1.0120	1.0120	0.0136	12.0	13.1	0.0128	17.4
30.00	20.0	1.0105	1.0105	0.0136	10.5	13.5	0.0092	15.3
60.00	20.0	1.0085	1.0085	0.0136	8.5	14.0	0.0066	12.3
250.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0033	8.7
1440.00	20.0	1.0045	1.0045	0.0136	4.5	15.1	0.0014	6.5

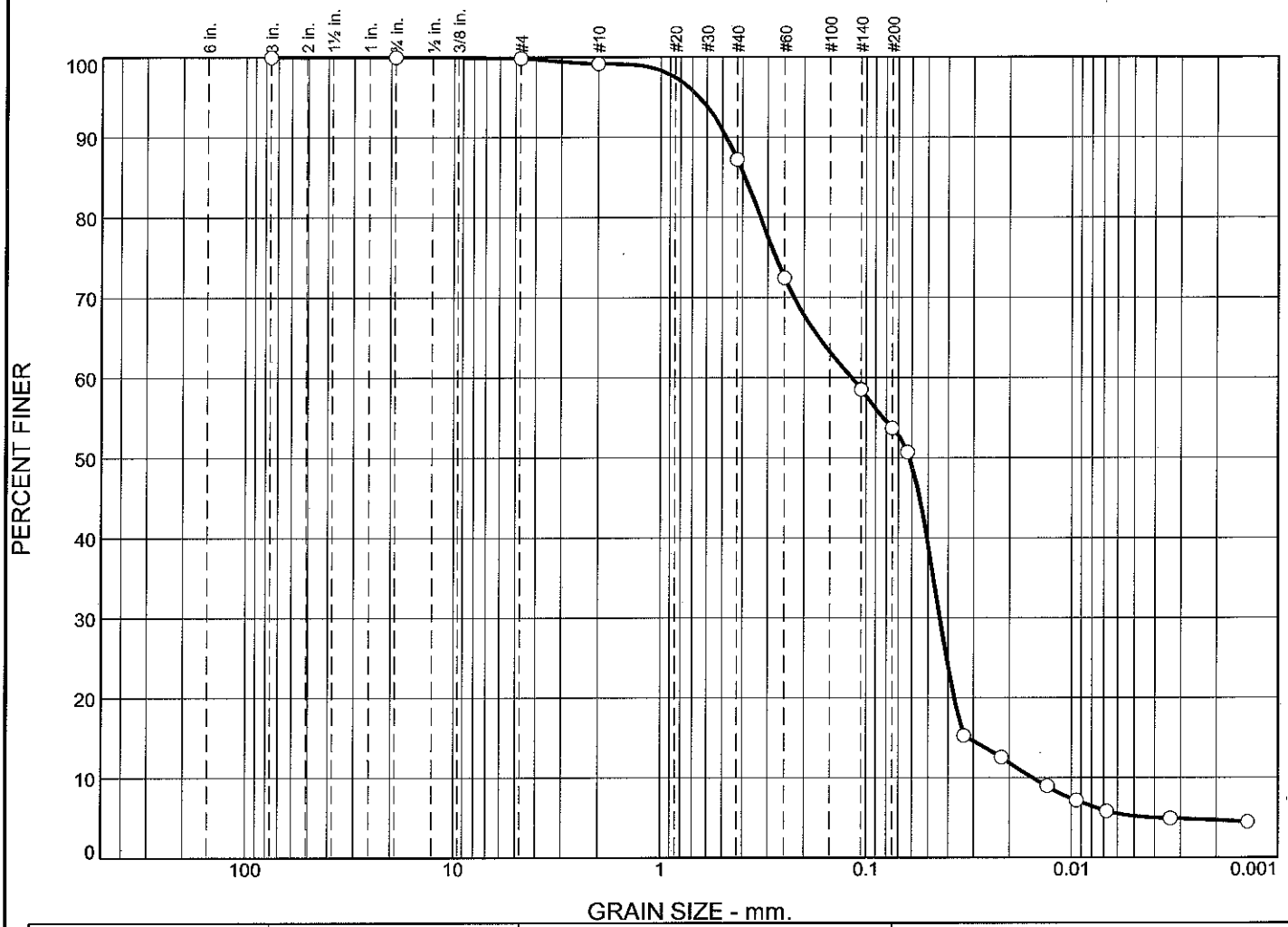
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	1.4	9.3	18.4	29.1	60.5	10.4	70.9

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0046	0.0088	0.0154	0.0347	0.0455	0.0519	0.2524	0.3351	0.4425	0.6786

Fineness Modulus	C_u	C_c
0.52	11.18	5.01

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.2	0.6	12.0	33.5	48.5	5.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3907	0.1181	0.0616	0.0438	0.0321	0.0154	1.05	7.64

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR-CA-CORE **Sample No.:** L1629119-11

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR-CA-CORE

Sample Number: L1629119-11

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 95.94
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
95.94	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.17	0.00	99.8
		#10	0.63	0.00	99.2
		#40	11.49	0.00	87.2
		#60	14.14	0.00	72.5
		#140	13.37	0.00	58.5
		#200	4.62	0.00	53.7
		#230	2.85	0.00	50.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 53.7
Weight of hydrometer sample =95.94
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0170	0.0136	16.0	12.1	0.0335	15.3
5.00	20.0	1.0130	1.0140	0.0136	13.0	12.9	0.0219	12.6
15.00	20.0	1.0090	1.0100	0.0136	9.0	13.9	0.0131	9.0
30.00	20.0	1.0070	1.0080	0.0136	7.0	14.4	0.0095	7.2
60.00	20.0	1.0055	1.0065	0.0136	5.5	14.8	0.0068	5.8
250.00	20.0	1.0045	1.0055	0.0136	4.5	15.1	0.0034	4.9
1440.00	20.0	1.0040	1.0050	0.0136	4.0	15.2	0.0014	4.5

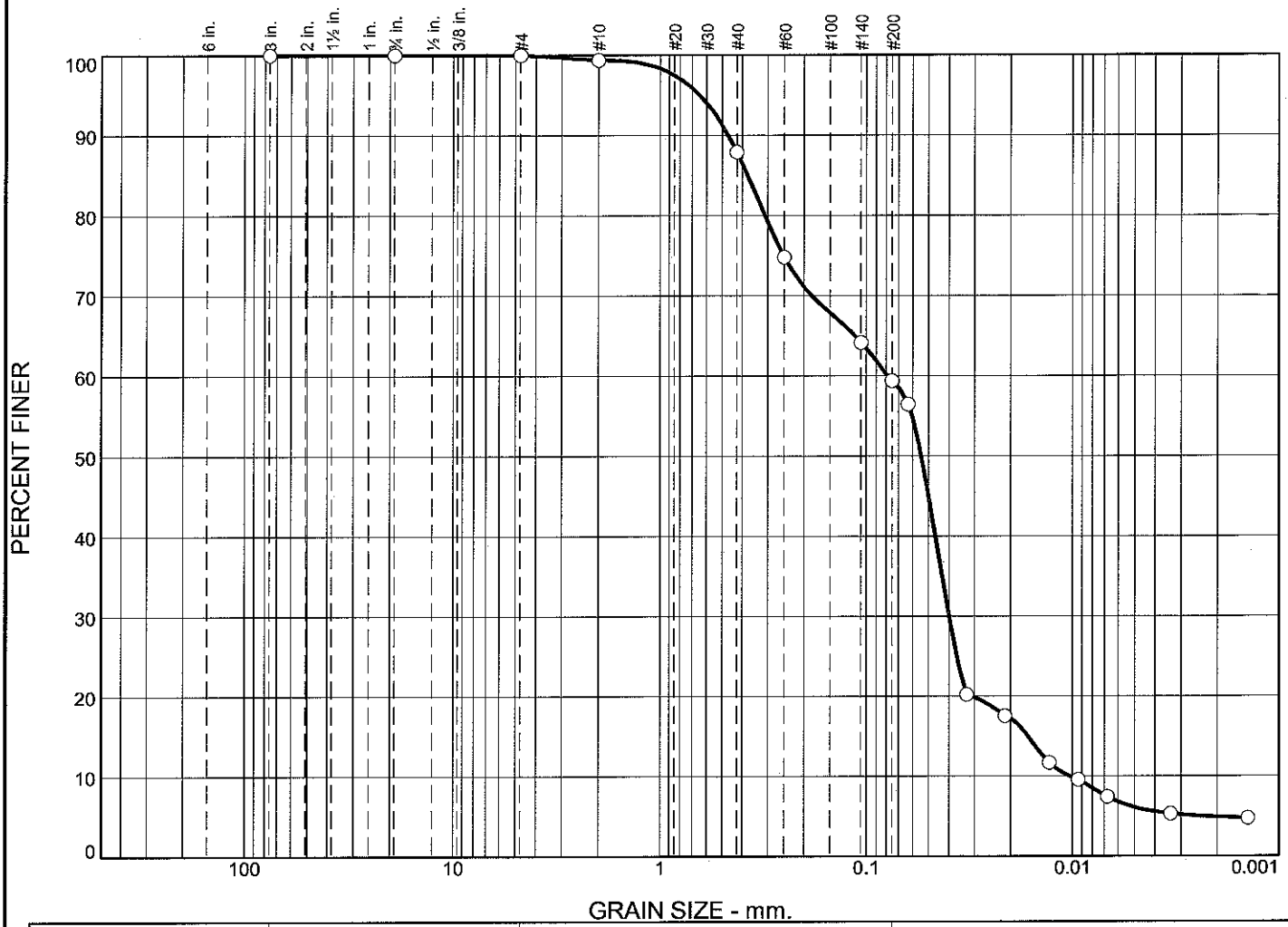
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.2	0.2	0.6	12.0	33.5	46.1	48.5	5.2	53.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0154	0.0321	0.0373	0.0438	0.0616	0.1181	0.3280	0.3907	0.4810	0.6541

Fineness Modulus	C_u	C_c
0.68	7.64	1.05

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.6	11.5	28.5	53.3	6.1

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3774	0.0789	0.0544	0.0399	0.0165	0.0102	1.98	7.71

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR-CB-CORE **Sample No.:** L1629119-12

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR-CB-CORE

Sample Number: L1629119-12

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 89.52
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
89.52	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.55	0.00	99.4
		#40	10.30	0.00	87.9
		#60	11.72	0.00	74.8
		#140	9.52	0.00	64.2
		#200	4.28	0.00	59.4
		#230	2.63	0.00	56.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 59.4
Weight of hydrometer sample =89.52
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0180	1.0190	0.0136	18.0	11.5	0.0328	20.2
5.00	20.0	1.0155	1.0165	0.0136	15.5	12.2	0.0213	17.5
15.00	20.0	1.0100	1.0110	0.0136	10.0	13.6	0.0130	11.7
30.00	20.0	1.0080	1.0090	0.0136	8.0	14.2	0.0094	9.6
60.00	20.0	1.0060	1.0070	0.0136	6.0	14.7	0.0068	7.4
250.00	20.0	1.0040	1.0050	0.0136	4.0	15.2	0.0034	5.3
1440.00	20.0	1.0035	1.0045	0.0136	3.5	15.4	0.0014	4.8

Fractional Components

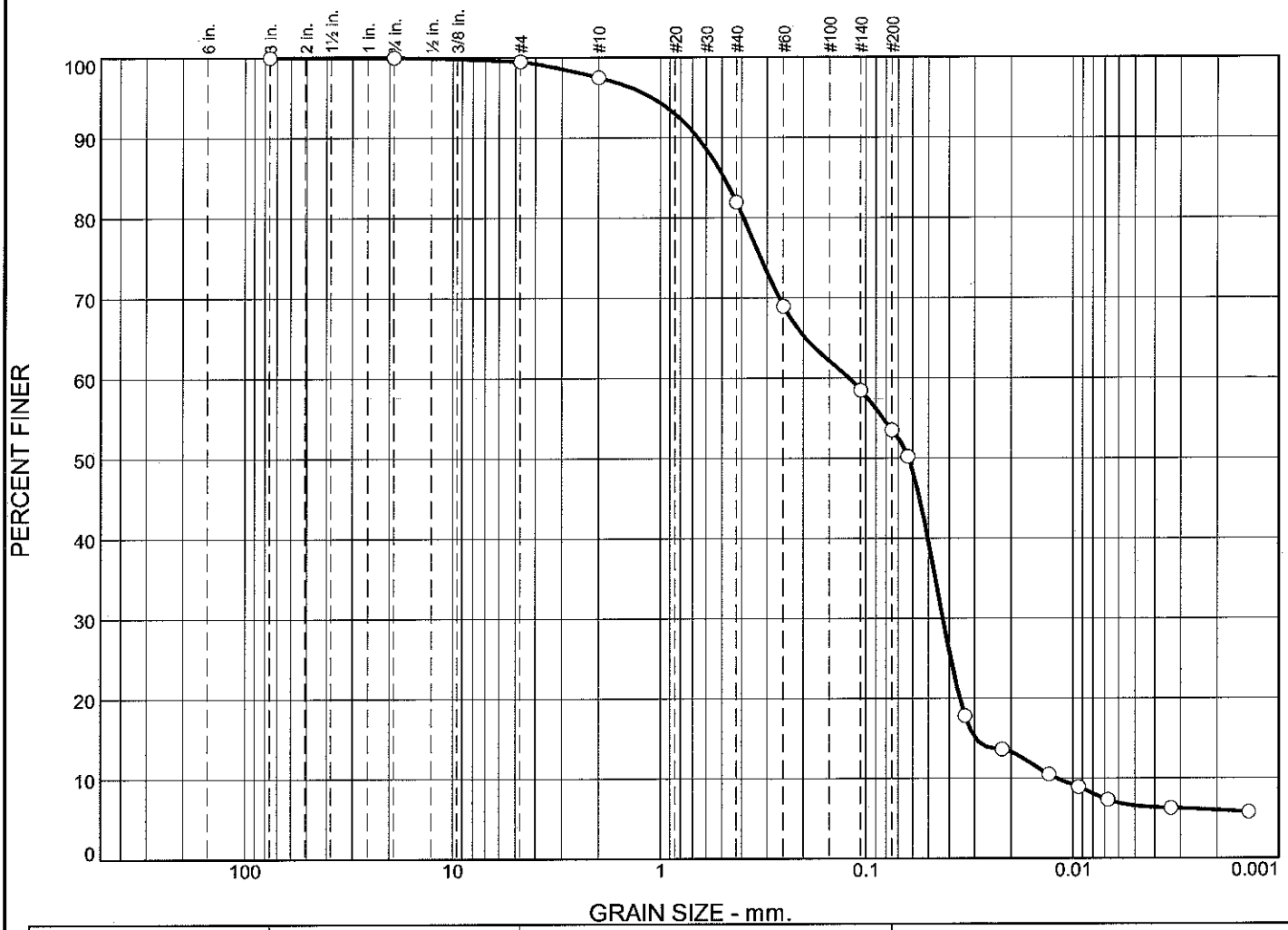
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.6	11.5	28.5	40.6	53.3	6.1	59.4

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0102	0.0165	0.0310	0.0399	0.0544	0.0789	0.3115	0.3774	0.4696	0.6471

Fineness Modulus	C_u	C_c
0.61	7.71	1.98

Alpha Analytical

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	2.0	15.6	28.4	46.9	6.6

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.4901	0.1209	0.0626	0.0428	0.0297	0.0120	1.26	10.04

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR-CC-CORE **Sample No.:** L1629119-13

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR-CC-CORE

Sample Number: L1629119-13

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 81.74
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
81.74	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.44	0.00	99.5
		#10	1.61	0.00	97.5
		#40	12.73	0.00	81.9
		#60	10.62	0.00	68.9
		#140	8.54	0.00	58.5
		#200	4.07	0.00	53.5
		#230	2.70	0.00	50.2

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 53.5
Weight of hydrometer sample =81.74
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0170	0.0136	16.0	12.1	0.0335	17.8
5.00	20.0	1.0120	1.0130	0.0136	12.0	13.1	0.0221	13.6
15.00	20.0	1.0090	1.0100	0.0136	9.0	13.9	0.0131	10.5
30.00	20.0	1.0075	1.0085	0.0136	7.5	14.3	0.0094	8.9
60.00	20.0	1.0060	1.0070	0.0136	6.0	14.7	0.0068	7.3
250.00	20.0	1.0050	1.0060	0.0136	5.0	15.0	0.0033	6.3
1440.00	20.0	1.0045	1.0055	0.0136	4.5	15.1	0.0014	5.8

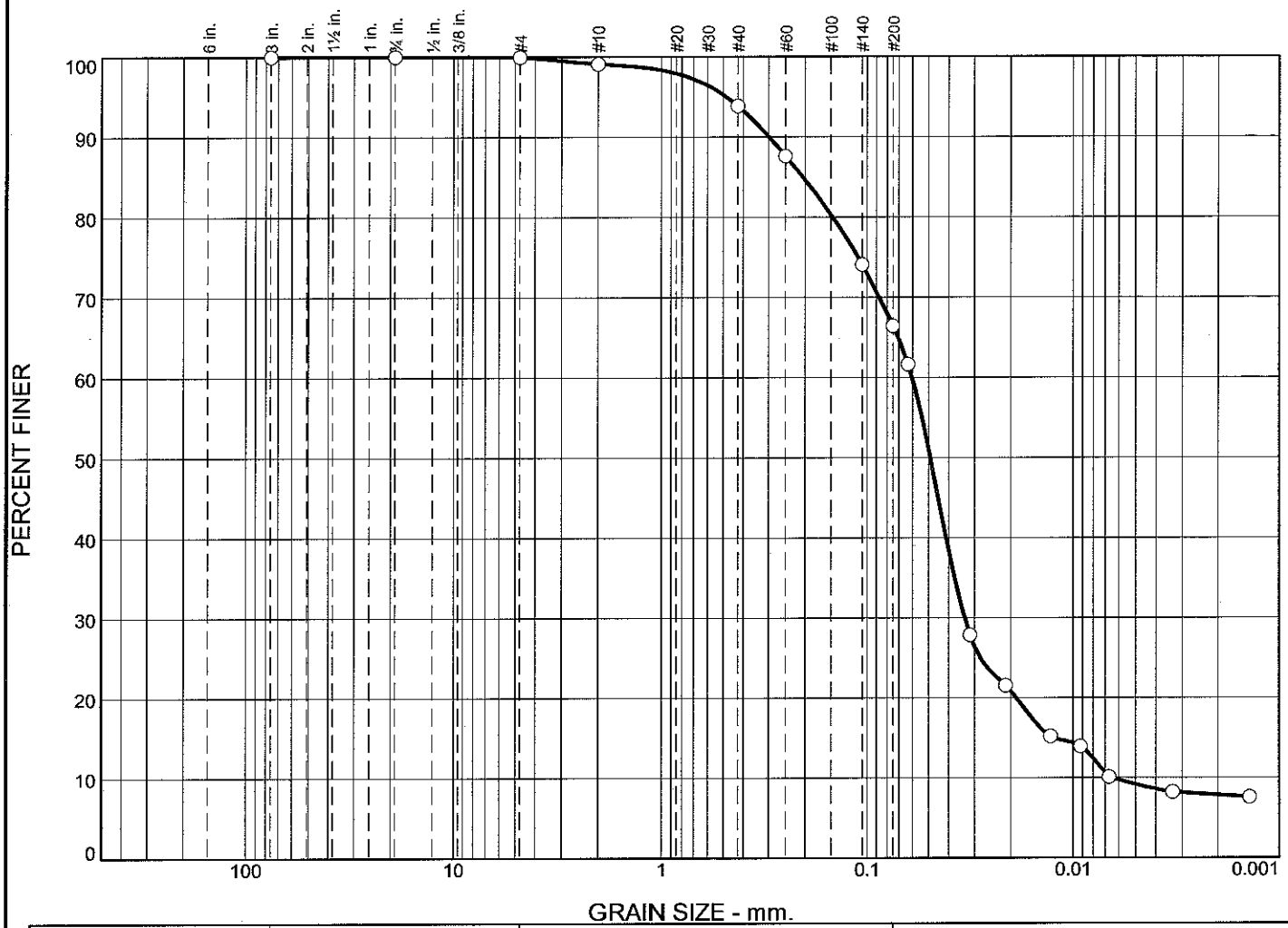
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.5	0.5	2.0	15.6	28.4	46.0	46.9	6.6	53.5

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0120	0.0297	0.0355	0.0428	0.0626	0.1209	0.3927	0.4901	0.6608	1.1053

Fineness Modulus	C_u	C_c
0.84	10.04	1.26

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.1	0.8	5.2	27.5	57.2	9.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.2059	0.0603	0.0492	0.0336	0.0125	0.0065	2.88	9.30

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR AC-CA-CORE **Sample No.:** L1629119-14

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR AC-CA-CORE

Sample Number: L1629119-14

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 84.10
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
84.10	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.05	0.00	99.9
		#10	0.71	0.00	99.1
		#40	4.40	0.00	93.9
		#60	5.26	0.00	87.6
		#140	11.39	0.00	74.1
		#200	6.43	0.00	66.4
		#230	4.02	0.00	61.6

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 66.4
Weight of hydrometer sample =84.10
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0210	1.0220	0.0136	21.0	10.7	0.0316	27.9
5.00	20.0	1.0160	1.0170	0.0136	16.0	12.1	0.0212	21.5
15.00	20.0	1.0110	1.0120	0.0136	11.0	13.4	0.0129	15.2
30.00	20.0	1.0100	1.0110	0.0136	10.0	13.6	0.0092	13.9
60.00	20.0	1.0070	1.0080	0.0136	7.0	14.4	0.0067	10.1
250.00	20.0	1.0055	1.0065	0.0136	5.5	14.8	0.0033	8.2
1440.00	20.0	1.0050	1.0060	0.0136	5.0	15.0	0.0014	7.6

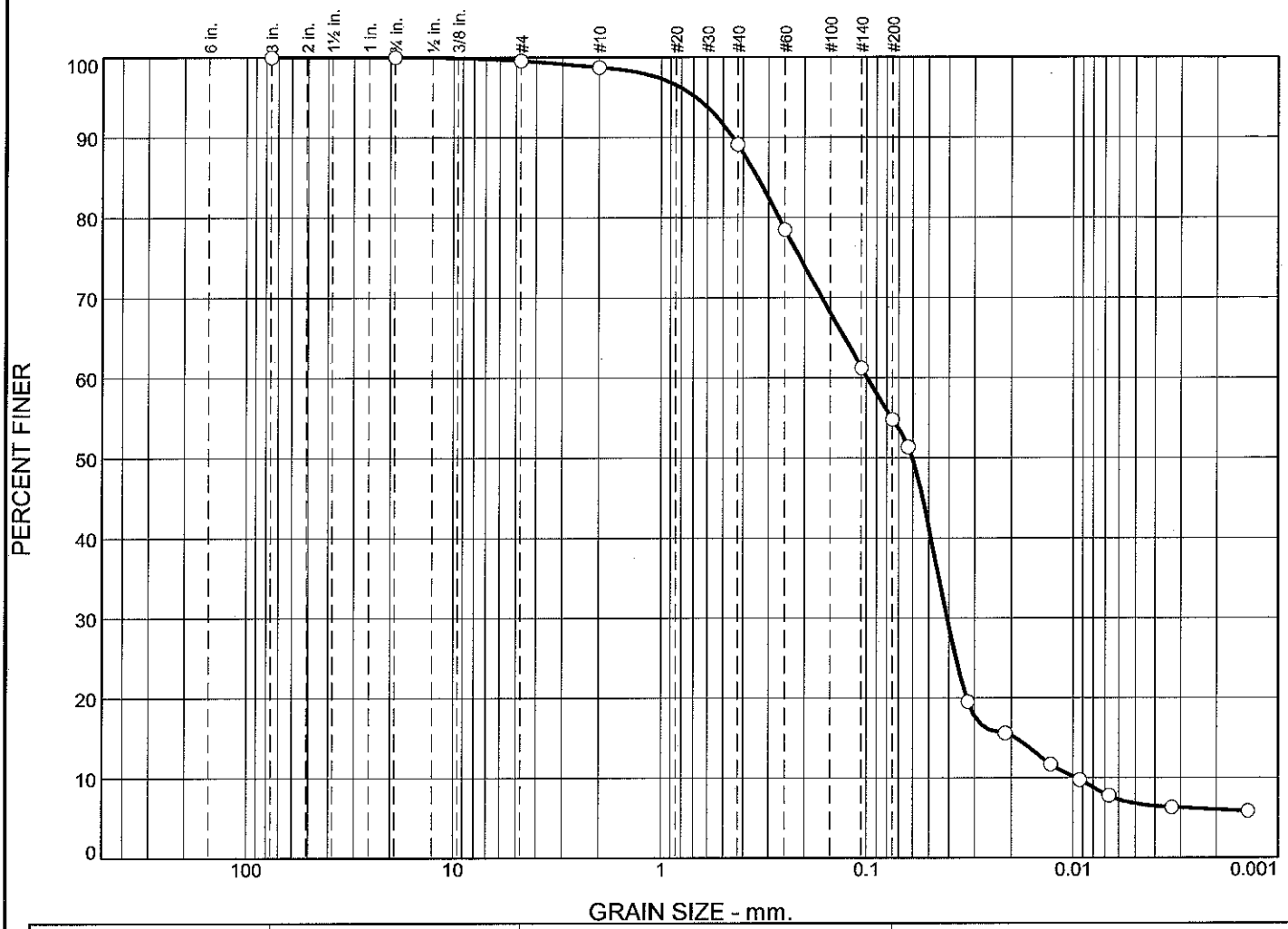
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.1	0.1	0.8	5.2	27.5	33.5	57.2	9.2	66.4

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0065	0.0125	0.0189	0.0336	0.0492	0.0603	0.1472	0.2059	0.3008	0.4846

Fineness Modulus	C_u	C_c
0.36	9.30	2.88

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	0.8	9.6	34.3	48.0	6.8

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3410	0.0996	0.0604	0.0410	0.0190	0.0097	1.73	10.24

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR AC-CB-CORE **Sample No.:** L1629119-15

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR AC-CB-CORE

Sample Number: L1629119-15

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 90.10
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
90.10	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.41	0.00	99.5
		#10	0.74	0.00	98.7
		#40	8.66	0.00	89.1
		#60	9.59	0.00	78.5
		#140	15.53	0.00	61.2
		#200	5.79	0.00	54.8
		#230	3.09	0.00	51.4

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 54.8
Weight of hydrometer sample =90.10
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 1
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0190	1.0200	0.0136	19.0	11.3	0.0324	19.5
5.00	20.0	1.0150	1.0160	0.0136	15.0	12.3	0.0214	15.6
15.00	20.0	1.0110	1.0120	0.0136	11.0	13.4	0.0129	11.7
30.00	20.0	1.0090	1.0100	0.0136	9.0	13.9	0.0093	9.7
60.00	20.0	1.0070	1.0080	0.0136	7.0	14.4	0.0067	7.8
250.00	20.0	1.0055	1.0065	0.0136	5.5	14.8	0.0033	6.3
1440.00	20.0	1.0050	1.0060	0.0136	5.0	15.0	0.0014	5.8

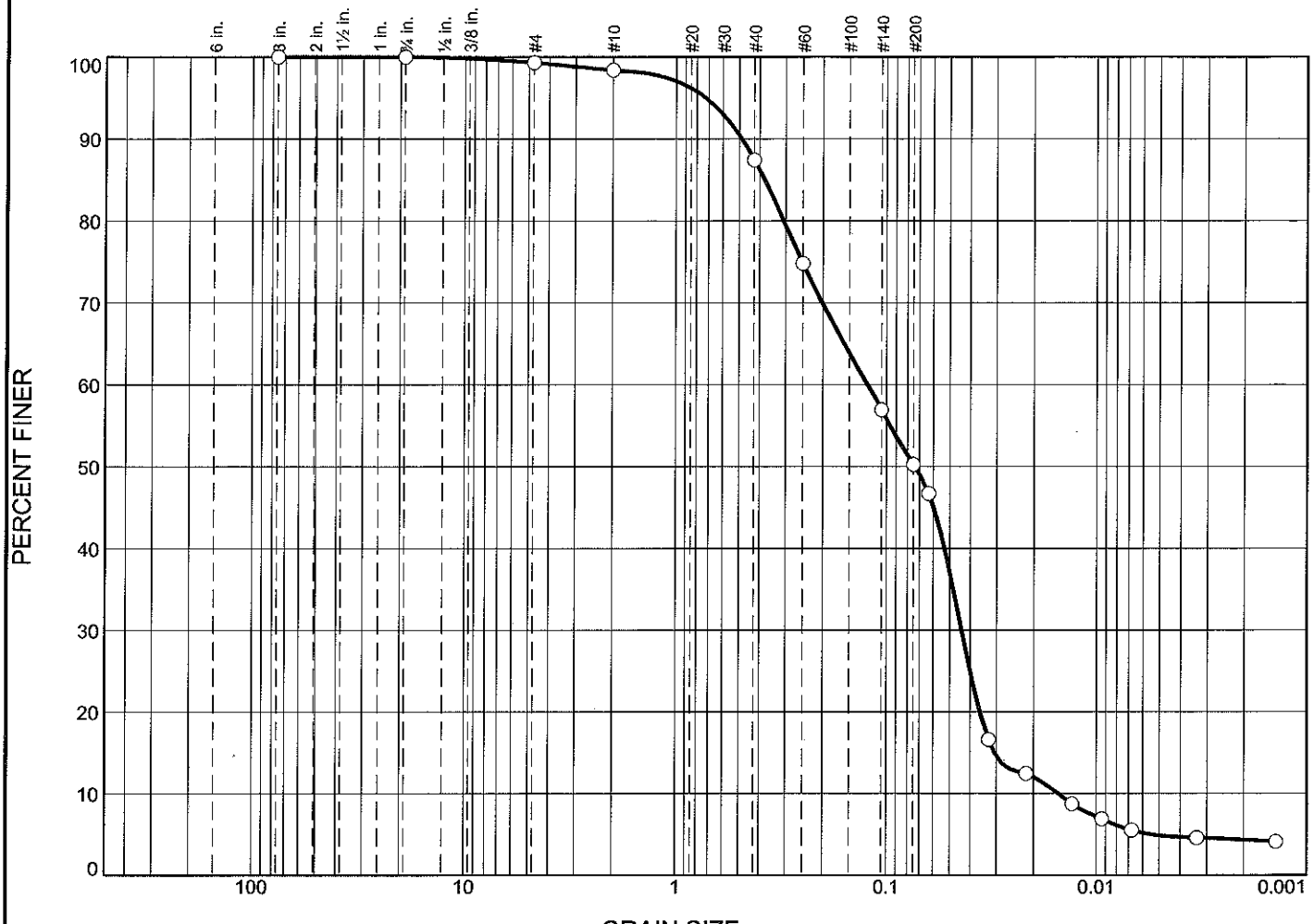
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.5	0.5	0.8	9.6	34.3	44.7	48.0	6.8	54.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0097	0.0190	0.0329	0.0410	0.0604	0.0996	0.2687	0.3410	0.4489	0.6834

Fineness Modulus	C_u	C_c
0.60	10.24	1.73

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.7	0.9	11.0	37.2	45.3	4.9

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.3798	0.1237	0.0740	0.0440	0.0307	0.0153	1.03	8.09

	Material Description	USCS	AASHTO
○			

Project No. **Client:**

Project:

○ **Source:** LDW-BA-IN-ENR AC-CC-CORE **Sample No.:** L1629119-16

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-IN-ENR AC-CC-CORE

Sample Number: L1629119-16

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 87.43
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
87.43	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.61	0.00	99.3
		#10	0.80	0.00	98.4
		#40	9.58	0.00	87.4
		#60	11.05	0.00	74.8
		#140	15.62	0.00	56.9
		#200	5.85	0.00	50.2
		#230	3.09	0.00	46.7

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 50.2
Weight of hydrometer sample =87.43
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0180	1.0180	0.0136	18.0	11.5	0.0328	16.6
5.00	20.0	1.0135	1.0135	0.0136	13.5	12.7	0.0218	12.4
15.00	20.0	1.0095	1.0095	0.0136	9.5	13.8	0.0131	8.7
30.00	20.0	1.0075	1.0075	0.0136	7.5	14.3	0.0094	6.9
60.00	20.0	1.0060	1.0060	0.0136	6.0	14.7	0.0068	5.5
250.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0033	4.6
1440.00	20.0	1.0045	1.0045	0.0136	4.5	15.1	0.0014	4.1

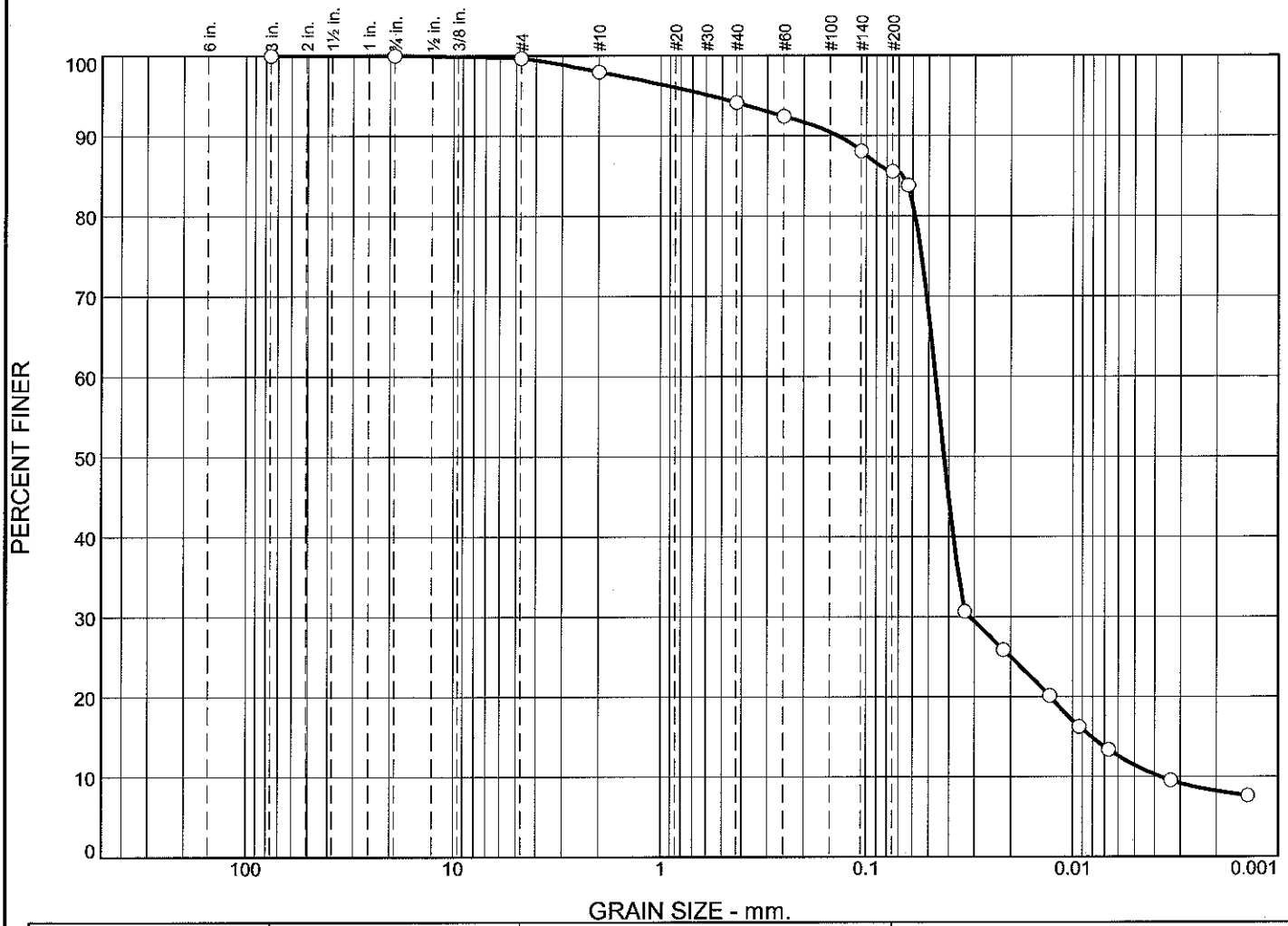
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.7	0.7	0.9	11.0	37.2	49.1	45.3	4.9	50.2

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0153	0.0307	0.0360	0.0440	0.0740	0.1237	0.3087	0.3798	0.4881	0.7257

Fineness Modulus	C_u	C_c
0.69	8.09	1.03

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.3	1.7	3.9	8.5	74.1	11.5

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.0664	0.0464	0.0421	0.0315	0.0081	0.0037	5.72	12.41

Material Description	USCS	AASHTO
○		

Project No. **Client:**

Project:

○ **Source:** LDW-BA-SC-ENR-CA-CORE **Sample No.:** L1629119-18

Remarks:

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

10/6/2016

Location: LDW-BA-SC-ENR-CA-CORE

Sample Number: L1629119-18

Sieve Test Data

Post #200 Wash Test Weights (grams): **Dry Sample and Tare =** 71.51
Tare Wt. = 0.00
Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
71.51	0.00	3"	0.00	0.00	100.0
		.75"	0.00	0.00	100.0
		#4	0.25	0.00	99.7
		#10	1.20	0.00	98.0
		#40	2.74	0.00	94.1
		#60	1.24	0.00	92.4
		#140	3.11	0.00	88.1
		#200	1.79	0.00	85.6
		#230	1.25	0.00	83.8

Hydrometer Test Data

Hydrometer test uses material passing #200
Percent passing #200 based upon complete sample = 85.6
Weight of hydrometer sample =71.51
Automatic temperature correction
Composite correction (fluid density and meniscus height) at 20 deg. C = 0
Meniscus correction only = 0.0
Specific gravity of solids = 2.65
Hydrometer type = 151H
Hydrometer effective depth equation: L = 16.294964 - 0.2645 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0160	1.0160	0.0136	16.0	12.1	0.0335	30.7
5.00	20.0	1.0135	1.0135	0.0136	13.5	12.7	0.0218	25.9
15.00	20.0	1.0105	1.0105	0.0136	10.5	13.5	0.0130	20.1
30.00	20.0	1.0085	1.0085	0.0136	8.5	14.0	0.0093	16.3
60.00	20.0	1.0070	1.0070	0.0136	7.0	14.4	0.0067	13.4
250.00	20.0	1.0050	1.0050	0.0136	5.0	15.0	0.0033	9.6
1440.00	20.0	1.0040	1.0040	0.0136	4.0	15.2	0.0014	7.6

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.3	0.3	1.7	3.9	8.5	14.1	74.1	11.5	85.6

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0037	0.0081	0.0128	0.0315	0.0421	0.0464	0.0582	0.0664	0.1382	0.5703

Fineness Modulus	C_u	C_c
0.27	12.41	5.72

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/15/16

ALPHA Job #: TBD L1629119

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TOC EPA 9060A(m)	GS ASTM D422 using #230 sieve	Black Carbon Gustafsson (1997)										Sample Specific Comments	TOTAL # BOTTLES
	~~See attached COC forms~~			sediment	—	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	See attached	1
2919-01	LDW-BA-SC-ENR-CA-CORE	9/10/16	1305		JL	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-02	CB		1210			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-03	CC		1225			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-04	CD		1335			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-05	CE	9/12/16	1145		BWG	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-06	LDW-BA-SC-ENR+AC-CA-CORE	9/09/16	1008		JL	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-07	CB		0945			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-08	CC		1600			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-09	CD		1630			☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	A	A	A	-	-	-	-	-	-	-	-	-		
					Preservative	A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Julia Levengood	9/14/16 1430	Fedex	
Fedex	9/15/16 9:53		9/15/16 9:53

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FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

MANSFIELD CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/15/16

ALPHA Job #: TBD L1629119

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

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ANALYSIS

SAMPLE HANDLING
Filtration
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☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

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-10	LDW-BA-SC-ENR+AC-CE-CORE	9/09/16	1650		JL	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-11	LDW-BA-IN-ENR-CA-CORE	9/14/16	1130			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-12	CB		1040			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-13	CC		1142			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-14	LDW-BA-IN-ENR+AC-CA-CORE	9/14/16	1020			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-15	CB-		1055			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-16	CC		0957			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
-17	CD	9/12/16	1140		BWG	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

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ALPHA Job #: TBD L1629119

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

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Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

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	CB		1210			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		1225			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CD		1335			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CE	9/12/16	1145		BWG	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
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	CB		0945			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		1600			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CD		1630			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	A	A	A	-	-	-	-	-	-	-	-	-		
					Preservative	A	A	A	-	-	-	-	-	-	-	-	-		

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Fedex	9/15/16 9:53	[illegible]	9/15/16 9:53

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	LDW-BA-IN-ENR-CA-CORE	9/14/16	1130			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CB		1040			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		1142			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	LDW-BA-IN-ENR+AC-CA-CORE	9/14/16	1020			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CB		1055			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CC		0957			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
	CD	9/13/16	1140		BWG	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

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