ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: ERM-New England

Address: 399 Boylston Street
6th Floor
Boston, MA 02116

Attn: Jeremy Picard

Project Number: 13606.03.02

Site: RAYTHEON

Laboratory Job Number: L0404322

Date Received: 27-APR-2004

Date Reported: 04-MAY-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0404322-01	MW-219S	WAYLAND, MA
L0404322-02	MW-219M	WAYLAND, MA
L0404322-03	MW-221M	WAYLAND, MA
L0404322-04	MW-221D	WAYLAND, MA
L0404322-05	DUP-2	WAYLAND, MA
L0404322-06	MW-218S	WAYLAND, MA
L0404322-07	MW-218M	WAYLAND, MA
L0404322-08	MW-218D	WAYLAND, MA

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

Authorized by: Scott McLean
This document electronically signed

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0404322

Chloride

L0404322-03, -06, -07, and the associated Duplicate have an elevated limit of detection due to the 10x dilutions required for the samples to fall within the calibration curve.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-01
MW-219S
Sample Matrix: WATER

Date Collected: 27-APR-2004 12:00
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	31.	mg/l	1.0	1	9251		0429 21:09	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-02
MW-219M
Sample Matrix: WATER

Date Collected: 27-APR-2004 10:00
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	2.0	mg/l	1.0	1	9251		0429 21:10	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-03
MW-221M
Sample Matrix: WATER

Date Collected: 27-APR-2004 13:40
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	120	mg/l	10.	1	9251		0429 21:46	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-04
MW-221D
Sample Matrix: WATER

Date Collected: 27-APR-2004 13:46
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	60.	mg/l	1.0	1	9251		0429 23:44	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-05
DUP-2
Sample Matrix: WATER

Date Collected: 27-APR-2004 00:00
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	3.1	mg/l	1.0	1	9251		0429 23:44	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-06
MW-218S
Sample Matrix: WATER

Date Collected: 27-APR-2004 14:12
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	260	mg/l	10.	1	9251		0429 21:47	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-07
MW-218M
Sample Matrix: WATER

Date Collected: 27-APR-2004 11:48
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	540	mg/l	10.	1	9251		0429 21:52	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0404322-08
MW-218D
Sample Matrix: WATER

Date Collected: 27-APR-2004 10:27
Date Received : 27-APR-2004
Date Reported : 04-MAY-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	58.	mg/l	1.0	1	9251		0429 21:16	DD

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0404322

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Chloride for sample(s) 01-08 (L0404322-06, WG169288)					
Chloride	260	260	mg/l	0	7

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0404322

Parameter	% Recovery	QC Criteria
Chloride LCS for sample(s) 01-08 (WG169288)		
Chloride	100	84-110
Chloride SPIKE for sample(s) 01-08 (L0404322-06, WG169288)		
Chloride	100	58-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0404322

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-08 (WG169288-2)								
Chloride	ND	mg/l	1.0	1	9251		0429 21:05	DD

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. 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, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. 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, Inc.

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

CHAIN OF CUSTODY / / 4/27/04 L0404322

Report Information - Data Deliverables | Billing Information

☒ ADEx ☐ Add'l Deliverables ☒ EMAIL ☐ Same as Client info PO #

Client Information

Client: ERM
Address: 399 Boylston St Fl 6
Boston, MA 02116
Phone: 617 267 8377
Fax: 617 267 6447
Email: theresa.kennedy@erm.com

☐ These samples have been previously analyzed by Alpha

Project Location: Raytheon Cleveland, MA
Project #: 13606.03.02
Project Manager: J Picard
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 5/4/04 Time:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are Drinking Water Samples Submitted?
☐ Yes ☐ No Have you met minimum field QC requirements?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: Chloride

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	Chloride	Sample Specific Comments	TOTAL # BOTTLES
04322.1	MW-219S	4/27/04	1200	GW	LR	1		1
2	MW-219M	4/27/04	1000	GW	MH	1		1
3	MW-221M	4/27/04	1340	GW	MH	1		1
4	MW-221D	4/27/04	1346	GW	LR	1		1
5	DUP-2	4/27/04	2400	GW	MH	1		1
6	MW-218S	4/27/04	1412	GW	NG	1		1
7	MW-218M	4/27/04	1148	GW	NG	1		1
8	MW-218D	4/27/04	1027	GW	NG	1		1
6	MW-218S MS/D	4/27/04	1412	GW	NG	1		1

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

Container Type: P
Preservative: A

IS YOUR PROJECT MCP ?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/27/04 1640	[signature]	4/27/04 1640
[signature]	4/27/04 1810	[signature]	4/27/04 1810

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. See reverse side.