

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 Laboratory Job Number: L0413791  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 09-DEC-2004  
Attn: Jeremy Picard Date Reported: 16-DEC-2004  
Project Number: 13606 Delivery Method: Alpha  
Site: RAYTHEON WAYLAND

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

- A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES
- B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES
- C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES
- D. VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? NA

A response to questions E and F is required for "Presumptive Certainty" status

- E. Were all QC performance standards and recommendations for the specified method(s) achieved? YES
- F. Were results for all analyte-list compounds/elements for the specified method(s) reported? NO

Any answers of NO to the above questions are addressed in the case narrative.

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

Laboratory Job Number: L0413791  
Date Reported: 16-DEC-2004

---

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0413791-01	MW-109	WAYLAND
L0413791-02	MW-113	WAYLAND
L0413791-03	MW-106	WAYLAND
L0413791-04	MW-106M	WAYLAND
L0413791-05	FD-04	WAYLAND
L0413791-06	TB-03	WAYLAND

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0413791

---

MCP Related Narratives

Report Submission

In reference to question F, at the client's request, the samples were analyzed only for the compounds specified on the chain of custody.

Metals

L0413791-02 was re-analyzed on a 10x dilution in order to quantitate the Sodium within the range of the calibration. The result is reported as a greater than value for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound which exceeded the range of the calibration.

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: L0413791-01 Date Collected: 08-DEC-2004 17:00  
 MW-109 Date Received : 09-DEC-2004  
 Sample Matrix: WATER Date Reported : 16-DEC-2004  
 Condition of Sample: Satisfactory Field Prep: Field Filtered  
 Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	15.	mg/l	2.0	60 6010B	1210 16:00	1213 16:35	RW

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: L0413791-02

Date Collected: 08-DEC-2004 17:25

MW-113

Date Received : 09-DEC-2004

Sample Matrix:

WATER

Date Reported : 16-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 1-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	>20	mg/l	2	60 6010B	1210 16:00	1213 16:41	RW
Sodium, Dissolved	39.	mg/l	20.	60 6010B	1210 16:00	1213 17:21	RW

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: L0413791-03

Date Collected: 08-DEC-2004 14:50

MW-106

Date Received : 09-DEC-2004

Sample Matrix:

WATER

Date Reported : 16-DEC-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1213 18:04		SE
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413791-03  
 MW-106

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1213 18:04		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	109.	%		70-130			
Toluene-d8	103.	%		70-130			
4-Bromofluorobenzene	99.0	%		70-130			
Dibromofluoromethane	103.	%		70-130			

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: L0413791-04

Date Collected: 08-DEC-2004 15:35

MW-106M

Date Received : 09-DEC-2004

Sample Matrix:

WATER

Date Reported : 16-DEC-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1213 18:40 SE		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				

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



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413791-04  
MW-106M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1213 18:40		SE
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	107.	%		70-130			
Toluene-d8	102.	%		70-130			
4-Bromofluorobenzene	103.	%		70-130			
Dibromofluoromethane	101.	%		70-130			

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: L0413791-05

Date Collected: 08-DEC-2004 00:00

FD-04

Date Received : 09-DEC-2004

Sample Matrix:

WATER

Date Reported : 16-DEC-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1213 19:16 SE		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413791-05  
FD-04

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1213 19:16		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	108.	%		70-130			
Toluene-d8	101.	%		70-130			
4-Bromofluorobenzene	103.	%		70-130			
Dibromofluoromethane	103.	%		70-130			

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: L0413791-06

Date Collected: 01-DEC-2004 15:45

TB-03

Date Received : 09-DEC-2004

Sample Matrix:

WATER

Date Reported : 16-DEC-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1210	15:43	RY
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				
Chloroform	ND	ug/l	0.75				
Carbon tetrachloride	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	1.8				
Dibromochloromethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.75				
Tetrachloroethene	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413791-06  
 TB-03

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1210 15:43		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	110.	%		70-130			
Toluene-d8	102.	%		70-130			
4-Bromofluorobenzene	105.	%		70-130			
Dibromofluoromethane	102.	%		70-130			

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413791

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 01-02 (WG189105-2, WG189105)					
Sodium, Dissolved	100	100	0	20	75-125
Volatile Organics by MCP 8260B for sample(s) 03-05 (WG189281-1, WG189281)					
Methylene chloride	104	100	4	25	70-130
1,1-Dichloroethane	109	103	6	25	70-130
Chloroform	104	98	6	25	70-130
Carbon tetrachloride	110	102	8	25	70-130
1,2-Dichloropropane	108	103	5	25	70-130
Dibromochloromethane	108	105	3	25	70-130
1,1,2-Trichloroethane	104	103	1	25	70-130
Tetrachloroethene	104	103	1	25	70-130
Chlorobenzene	106	104	2	25	70-130
Trichlorofluoromethane	111	104	7	25	70-130
1,2-Dichloroethane	108	107	1	25	70-130
1,1,1-Trichloroethane	107	103	4	25	70-130
Bromodichloromethane	105	100	5	25	70-130
trans-1,3-Dichloropropene	108	106	2	25	70-130
cis-1,3-Dichloropropene	106	102	4	25	70-130
1,1-Dichloropropene	112	105	6	25	70-130
Bromoform	99	101	2	50	70-130
1,1,2,2-Tetrachloroethane	102	99	3	25	70-130
Benzene	107	99	8	25	70-130
Toluene	105	100	5	25	70-130
Ethylbenzene	106	102	4	25	70-130
Chloromethane	100	89	12	50	70-130
Bromomethane	108	100	8	50	70-130
Vinyl chloride	99	88	12	25	70-130
Chloroethane	102	85	18	25	70-130
1,1-Dichloroethene	103	96	7	25	70-130
trans-1,2-Dichloroethene	110	102	8	25	70-130
Trichloroethene	107	99	8	25	70-130
1,2-Dichlorobenzene	104	98	6	25	70-130
1,3-Dichlorobenzene	105	100	5	25	70-130
1,4-Dichlorobenzene	105	100	5	25	70-130
Methyl tert butyl ether	103	106	3	25	70-130
p/m-Xylene	111	104	7	25	70-130
o-Xylene	107	102	5	25	70-130
cis-1,2-Dichloroethene	102	97	5	25	70-130
Dibromomethane	109	103	6	25	70-130
1,2,3-Trichloropropane	106	104	2	25	70-130
Styrene	111	106	5	25	70-130
Dichlorodifluoromethane	81	73	10	50	70-130
Acetone	113	107	5	50	70-130
Carbon disulfide	107	96	11	25	70-130
2-Butanone	110	104	6	50	70-130
4-Methyl-2-pentanone	102	98	4	50	70-130
2-Hexanone	114	112	2	50	70-130
Bromochloromethane	105	99	6	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413791

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 03-05 (WG189281-1, WG189281)					
Tetrahydrofuran	110	108	2	25	70-130
2,2-Dichloropropane	106	101	5	25	70-130
1,2-Dibromoethane	106	104	2	25	70-130
1,3-Dichloropropane	106	105	1	25	70-130
1,1,1,2-Tetrachloroethane	109	106	3	25	70-130
Bromobenzene	104	98	6	25	70-130
n-Butylbenzene	107	100	7	25	70-130
sec-Butylbenzene	105	98	7	25	70-130
tert-Butylbenzene	105	99	6	25	70-130
o-Chlorotoluene	105	98	7	25	70-130
p-Chlorotoluene	104	100	4	25	70-130
1,2-Dibromo-3-chloropropane	110	108	2	50	70-130
Hexachlorobutadiene	99	94	5	25	70-130
Isopropylbenzene	109	105	4	25	70-130
p-Isopropyltoluene	107	100	7	25	70-130
Naphthalene	106	103	3	25	70-130
n-Propylbenzene	107	99	8	25	70-130
1,2,3-Trichlorobenzene	106	103	3	25	70-130
1,2,4-Trichlorobenzene	106	100	6	25	70-130
1,3,5-Trimethylbenzene	107	102	5	25	70-130
1,2,4-Trimethylbenzene	106	99	7	25	70-130
Ethyl ether	116	104	11	25	70-130
Isopropyl Ether	106	102	4	25	70-130
Ethyl-Tert-Butyl-Ether	105	100	5	25	70-130
Tertiary-Amyl Methyl Ether	102	101	1	25	70-130
1,4-Dioxane	110	111	1	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	105	107	2		70-130
Toluene-d8	101	103	2		70-130
4-Bromofluorobenzene	99	101	2		70-130
Dibromofluoromethane	104	104	0		70-130
Volatile Organics by MCP 8260B for sample(s) 06 (WG189074-2, WG189074)					
Methylene chloride	86	82	1	25	70-130
1,1-Dichloroethane	93	86	2	25	70-130
Chloroform	88	82	0	25	70-130
Carbon tetrachloride	96	87	1	25	70-130
1,2-Dichloropropane	92	88	0	25	70-130
Dibromochloromethane	93	93	6	25	70-130
1,1,2-Trichloroethane	92	90	1	25	70-130
Tetrachloroethene	94	87	0	25	70-130
Chlorobenzene	93	90	0	25	70-130
Trichlorofluoromethane	99	86	3	25	70-130
1,2-Dichloroethane	94	90	5	25	70-130
1,1,1-Trichloroethane	93	86	2	25	70-130
Bromodichloromethane	92	89	2	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413791

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 06 (WG189074-2, WG189074)					
trans-1,3-Dichloropropene	95	91	1	25	70-130
cis-1,3-Dichloropropene	92	90	2	25	70-130
1,1-Dichloropropene	95	86	0	25	70-130
Bromoform	90	92	11	50	70-130
1,1,2,2-Tetrachloroethane	90	90	2	25	70-130
Benzene	92	84	0	25	70-130
Toluene	92	87	0	25	70-130
Ethylbenzene	96	89	1	25	70-130
Chloromethane	90	73	9	50	70-130
Bromomethane	99	79	3	50	70-130
Vinyl chloride	95	80	2	25	70-130
Chloroethane	85	75	5	25	70-130
1,1-Dichloroethene	92	80	2	25	70-130
trans-1,2-Dichloroethene	91	81	0	25	70-130
Trichloroethene	90	85	5	25	70-130
1,2-Dichlorobenzene	91	87	2	25	70-130
1,3-Dichlorobenzene	91	88	2	25	70-130
1,4-Dichlorobenzene	94	88	1	25	70-130
Methyl tert butyl ether	92	86	2	25	70-130
p/m-Xylene	98	91	3	25	70-130
o-Xylene	95	90	2	25	70-130
cis-1,2-Dichloroethene	88	81	1	25	70-130
Dibromomethane	86	89	3	25	70-130
1,2,3-Trichloropropane	94	90	5	25	70-130
Styrene	98	93	1	25	70-130
Dichlorodifluoromethane	88	70	3	50	70-130
Acetone	92	87	33	50	70-130
Carbon disulfide	92	78	10	25	70-130
2-Butanone	102	98	2	50	70-130
4-Methyl-2-pentanone	96	90	5	50	70-130
2-Hexanone	104	102	1	50	70-130
Bromochloromethane	90	84	1	25	70-130
Tetrahydrofuran	88	89	2	25	70-130
2,2-Dichloropropane	92	82	0	25	70-130
1,2-Dibromoethane	92	91	6	25	70-130
1,3-Dichloropropane	94	92	3	25	70-130
1,1,1,2-Tetrachloroethane	97	96	6	25	70-130
Bromobenzene	92	84	0	25	70-130
n-Butylbenzene	95	85	1	25	70-130
sec-Butylbenzene	92	86	2	25	70-130
tert-Butylbenzene	90	83	0	25	70-130
o-Chlorotoluene	92	88	3	25	70-130
p-Chlorotoluene	92	87	5	25	70-130
1,2-Dibromo-3-chloropropane	94	93	1	50	70-130
Hexachlorobutadiene	92	81	4	25	70-130
Isopropylbenzene	97	91	1	25	70-130
p-Isopropyltoluene	93	85	1	25	70-130



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413791

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 06 (WG189074-2, WG189074)					
Naphthalene	94	93	4	25	70-130
n-Propylbenzene	92	87	2	25	70-130
1,2,3-Trichlorobenzene	92	85	5	25	70-130
1,2,4-Trichlorobenzene	93	85	3	25	70-130
1,3,5-Trimethylbenzene	94	87	0	25	70-130
1,2,4-Trimethylbenzene	94	88	2	25	70-130
Ethyl ether	91	86	5	25	70-130
Isopropyl Ether	88	78	0	25	70-130
Ethyl-Tert-Butyl-Ether	85	78	4	25	70-130
Tertiary-Amyl Methyl Ether	87	80	6	25	70-130
1,4-Dioxane	90	92	7	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	105	103	2		70-130
Toluene-d8	103	101	2		70-130
4-Bromofluorobenzene	101	98	3		70-130
Dibromofluoromethane	103	104	1		70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413791

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP      ANAL	ID
-----------	--------	-------	-----	------------	------------------------	----

Blank Analysis for sample(s) 01-02 (WG189105-1)						
Dissolved Metals by MCP 6000/7000 series						
				60 6010B		

Sodium, Dissolved	ND	mg/l	2.0	60 6010B	1210 16:00 1213 15:36	RW
-------------------	----	------	-----	----------	-----------------------	----

Blank Analysis for sample(s) 06 (WG189074-6)						
Volatile Organics by MCP 8260B						
				60 8260B		1210 12:08 RY

Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	0.75			
Chloroform	ND	ug/l	0.75			
Carbon tetrachloride	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	1.8			
Dibromochloromethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.75			
Tetrachloroethene	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
Trichlorofluoromethane	ND	ug/l	2.5			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
1,1-Dichloropropene	ND	ug/l	2.5			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Benzene	ND	ug/l	0.50			
Toluene	ND	ug/l	0.75			
Ethylbenzene	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Bromomethane	ND	ug/l	1.0			
Vinyl chloride	ND	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	ND	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	2.5			
1,3-Dichlorobenzene	ND	ug/l	2.5			
1,4-Dichlorobenzene	ND	ug/l	2.5			
Methyl tert butyl ether	ND	ug/l	1.0			
p/m-Xylene	ND	ug/l	0.50			
o-Xylene	ND	ug/l	0.50			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
Dibromomethane	ND	ug/l	5.0			
1,2,3-Trichloropropane	ND	ug/l	5.0			
Styrene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
Acetone	ND	ug/l	5.0			
Carbon disulfide	ND	ug/l	5.0			
2-Butanone	ND	ug/l	5.0			

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413791

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP      ANAL	ID
-----------	--------	-------	-----	------------	------------------------	----

Blank Analysis for sample(s) 06 (WG189074-6)

Volatile Organics by MCP 8260B continued	60 8260B	1210 12:08 RY
--	----------	---------------

4-Methyl-2-pentanone	ND	ug/l	5.0
2-Hexanone	ND	ug/l	5.0
Bromochloromethane	ND	ug/l	2.5
Tetrahydrofuran	ND	ug/l	10.
2,2-Dichloropropane	ND	ug/l	2.5
1,2-Dibromoethane	ND	ug/l	2.0
1,3-Dichloropropane	ND	ug/l	2.5
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50
Bromobenzene	ND	ug/l	2.5
n-Butylbenzene	ND	ug/l	0.50
sec-Butylbenzene	ND	ug/l	0.50
tert-Butylbenzene	ND	ug/l	2.5
o-Chlorotoluene	ND	ug/l	2.5
p-Chlorotoluene	ND	ug/l	2.5
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5
Hexachlorobutadiene	ND	ug/l	1.0
Isopropylbenzene	ND	ug/l	0.50
p-Isopropyltoluene	ND	ug/l	0.50
Naphthalene	ND	ug/l	2.5
n-Propylbenzene	ND	ug/l	0.50
1,2,3-Trichlorobenzene	ND	ug/l	2.5
1,2,4-Trichlorobenzene	ND	ug/l	2.5
1,3,5-Trimethylbenzene	ND	ug/l	2.5
1,2,4-Trimethylbenzene	ND	ug/l	2.5
Ethyl ether	ND	ug/l	2.5
Isopropyl Ether	ND	ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND	ug/l	2.0
Tertiary-Amyl Methyl Ether	ND	ug/l	2.0
1,4-Dioxane	ND	ug/l	250

Surrogate(s)	Recovery	QC Criteria
1,2-Dichloroethane-d4	106. %	70-130
Toluene-d8	102. %	70-130
4-Bromofluorobenzene	101. %	70-130
Dibromofluoromethane	101. %	70-130

Blank Analysis for sample(s) 03-05 (WG189281-3)

Volatile Organics by MCP 8260B	60 8260B	1213 17:28 SE
--------------------------------	----------	---------------

Methylene chloride	ND	ug/l	5.0
1,1-Dichloroethane	ND	ug/l	0.75
Chloroform	ND	ug/l	0.75
Carbon tetrachloride	ND	ug/l	0.50
1,2-Dichloropropane	ND	ug/l	1.8
Dibromochloromethane	ND	ug/l	0.50
1,1,2-Trichloroethane	ND	ug/l	0.75
Tetrachloroethene	ND	ug/l	0.50
Chlorobenzene	ND	ug/l	0.50

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413791

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03-05 (WG189281-3)							
Volatile Organics by MCP 8260E continued							
				60 8260B		1213 17:28 SE	
Trichlorofluoromethane	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
Bromodichloromethane	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
1,1-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Toluene	ND	ug/l	0.75				
Ethylbenzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Bromomethane	ND	ug/l	1.0				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	2.5				
1,3-Dichlorobenzene	ND	ug/l	2.5				
1,4-Dichlorobenzene	ND	ug/l	2.5				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dibromomethane	ND	ug/l	5.0				
1,2,3-Trichloropropane	ND	ug/l	5.0				
Styrene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	5.0				
4-Methyl-2-pentanone	ND	ug/l	5.0				
2-Hexanone	ND	ug/l	5.0				
Bromochloromethane	ND	ug/l	2.5				
Tetrahydrofuran	ND	ug/l	10.				
2,2-Dichloropropane	ND	ug/l	2.5				
1,2-Dibromoethane	ND	ug/l	2.0				
1,3-Dichloropropane	ND	ug/l	2.5				
1,1,1,2-Tetrachloroethane	ND	ug/l	0.50				
Bromobenzene	ND	ug/l	2.5				
n-Butylbenzene	ND	ug/l	0.50				
sec-Butylbenzene	ND	ug/l	0.50				
tert-Butylbenzene	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413791

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 03-05 (WG189281-3)							
Volatile Organics by MCP 8260B continued							
				60 8260B			1213 17:28 SE
1,2-Dibromo-3-chloropropane	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
Isopropylbenzene	ND	ug/l	0.50				
p-Isopropyltoluene	ND	ug/l	0.50				
Naphthalene	ND	ug/l	2.5				
n-Propylbenzene	ND	ug/l	0.50				
1,2,3-Trichlorobenzene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
1,3,5-Trimethylbenzene	ND	ug/l	2.5				
1,2,4-Trimethylbenzene	ND	ug/l	2.5				
Ethyl ether	ND	ug/l	2.5				
Isopropyl Ether	ND	ug/l	2.0				
Ethyl-Tert-Butyl-Ether	ND	ug/l	2.0				
Tertiary-Amyl Methyl Ether	ND	ug/l	2.0				
1,4-Dioxane	ND	ug/l	250				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	106.	%		70-130			
Toluene-d8	104.	%		70-130			
4-Bromofluorobenzene	101.	%		70-130			
Dibromofluoromethane	103.	%		70-130			

ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I

---

REFERENCES

60. Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

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.

ug/cart Micrograms per Cartridge.

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.

ALPHA ANALYTICAL LABORATORIES  
LOGIN SPECIFIC INFORMATION

Laboratory Job Number: L0413791

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0413791-01A	Plastic 250ml HNO3 preserved	B	<2	2.0 C	Y	Absent	MCP-NA-6010S
L0413791-02A	Plastic 250ml HNO3 preserved	B	<2	2.0 C	Y	Absent	MCP-NA-6010S
L0413791-03A	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04
L0413791-03B	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04
L0413791-04A	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04
L0413791-04B	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04
L0413791-05A	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04
L0413791-05B	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04
L0413791-06A	Vial Na2S2O3 preserved	B	N/A	2.0 C	Y	Absent	MCP-8260-04

Container Comments

Container ID Comments



# CHAIN OF CUSTODY

Eight Walkup Drive Westborough, MA 01581  
 TEL: 508-898-9220 FAX: 508-898-9193

**Client Information**

Client: ERM - Boston

Address: 399 BOSTON STREET

Phone: (617) 646 7800

Fax: (617) 267 6447

Email: joeygpicard@esm.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

PRESERVATIVE 0 = SODIUM THIOSULFATE H<sub>2</sub>O<sub>2</sub> N<sub>2</sub> S<sub>2</sub>

**Project Information**

Project Name: FUR BATHUB FACILITY

Project Location: WATLAND

Project #: 13606

Project Manager: J.P. CARDS

ALPHA Quote #:

Turn-Around Time

Standard

RUSH (only confirmed if pre-approved)

Date Due: 12/16

Time:

Date Rec'd in Lab: 12/19

**Report Information - Data Deliverables**

FAX

EMAIL

INDEX

Add'l Deliverables

**Regulatory/Requirements/Report Limits**

State / Fed Program

Criteria

**Billing Information**

Same as Client info

PO #:

ALPHA Job #: 202137971

**MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED**

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

**SAMPLE HANDLING**

- Filtration
- None
- Not needed
- Lab to do
- Preservation
- Lab to do

**Sample Specific Comments**

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS	MCP PRESUMPTIVE CERTAINTY	SAMPLE HANDLING	Sample Specific Comments
		Date	Time						
3791	MW-109	12/8/04	1700	GW	SF	SODIUM CHLORIDE	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Filtration	
2	MW-113	12/8/04	1725	GW	SF	8021 B CHLORINATED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> None	
	<del>MW-115</del>	<del>12/8/04</del>	<del>1230</del>	<del>GW</del>	<del>BH</del>	8021 B CHLORINATED	<del><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</del>	<del><input type="checkbox"/> None</del>	
3	MW-106	12/8/04	1450	GW	SF	8021 B CHLORINATED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> None	
4	MW-106M	12/8/04	1535	GW	SF	8021 B CHLORINATED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> None	
	FD-04	12/8/04	2400	GW	SF	8021 B CHLORINATED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> None	
6	TB-03	12/1/04	1545	LW	LW	8021 B CHLORINATED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> None	

**QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY**

IS YOUR PROJECT MCP?

Relinquished By:

*[Signature]*

Date/Time

12/19/04 1800

Received By:

*[Signature]*

Date/Time

12/19/04 1730

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.