

ALPHA ANALYTICAL LABORATORIES

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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: L0504026  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 14-APR-2005  
Attn: Jeremy Picard Date Reported: 21-APR-2005  
Project Number: 28046 Delivery Method: Alpha  
Site: FORMER RAYTHEON FACILITY

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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.

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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.

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Authorized by: Kathleen M. O'Brien  
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0504026  
Date Reported: 21-APR-2005

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0504026-01	MW-204M-20050413-01	WAYLAND, MA
L0504026-02	MW-204S-20050413-01	WAYLAND, MA
L0504026-03	DUP-012-20050413-01	WAYLAND, MA
L0504026-04	MW-204D-20050413-01	WAYLAND, MA
L0504026-05	MW-212-20050413-01	WAYLAND, MA
L0504026-06	MW-212M-20050413-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0504026

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Report Submission

In reference to question F, the samples were analyzed only for the compounds specified on the chain of custody.

Volatile Organics

L0504026-01 has elevated limits of detection due to the 5x dilutions required by the elevated concentrations of target compounds in the sample.

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: L0504026-01  
MW-204M-20050413-01  
Sample Matrix: WATER

Date Collected: 13-APR-2005 09:15  
Date Received : 14-APR-2005  
Date Reported : 21-APR-2005

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	ANAL	ID
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	32.	mg/l	2.0	60 6010B	0419 13:35	0420 12:56	M
Volatile Organics by MCP 8260B				60 8260B			0419 20:04 TT
Methylene chloride	ND	ug/l	25.				
1,1-Dichloroethane	ND	ug/l	3.8				
Chloroform	ND	ug/l	3.8				
Carbon tetrachloride	ND	ug/l	2.5				
1,2-Dichloropropane	ND	ug/l	8.8				
Dibromochloromethane	ND	ug/l	2.5				
1,1,2-Trichloroethane	ND	ug/l	3.8				
Tetrachloroethene	ND	ug/l	2.5				
Chlorobenzene	ND	ug/l	2.5				
1,2-Dichloroethane	ND	ug/l	2.5				
1,1,1-Trichloroethane	28.	ug/l	2.5				
Bromodichloromethane	ND	ug/l	2.5				
trans-1,3-Dichloropropene	ND	ug/l	2.5				
cis-1,3-Dichloropropene	ND	ug/l	2.5				
Bromoform	ND	ug/l	10.				
1,1,2,2-Tetrachloroethane	ND	ug/l	2.5				
Benzene	ND	ug/l	2.5				
Chloromethane	ND	ug/l	12.				
Vinyl chloride	ND	ug/l	5.0				
Chloroethane	ND	ug/l	5.0				
1,1-Dichloroethene	5.9	ug/l	2.5				
trans-1,2-Dichloroethene	ND	ug/l	3.8				
Trichloroethene	150	ug/l	2.5				
1,2-Dichlorobenzene	ND	ug/l	12.				
1,3-Dichlorobenzene	ND	ug/l	12.				
1,4-Dichlorobenzene	ND	ug/l	12.				
Methyl tert butyl ether	80.	ug/l	5.0				
cis-1,2-Dichloroethene	ND	ug/l	2.5				
Dichlorodifluoromethane	ND	ug/l	25.				
1,2-Dibromoethane	ND	ug/l	10.				
1,3-Dichloropropane	ND	ug/l	12.				
1,1,1,2-Tetrachloroethane	ND	ug/l	2.5				
o-Chlorotoluene	ND	ug/l	12.				
p-Chlorotoluene	ND	ug/l	12.				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0504026-01  
 MW-204M-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 20:04		TT
Hexachlorobutadiene	ND	ug/l	5.0				
1,2,4-Trichlorobenzene	ND	ug/l	12.				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	102.	%		70-130			
Toluene-d8	93.0	%		70-130			
4-Bromofluorobenzene	91.0	%		70-130			
Dibromofluoromethane	96.0	%		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: L0504026-02 Date Collected: 13-APR-2005 10:30  
 MW-204S-20050413-01 Date Received : 14-APR-2005  
 Sample Matrix: WATER Date Reported : 21-APR-2005  
 Condition of Sample: Satisfactory Field Prep: Field Filtered  
 Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60-8260B	0419 20:44		TT
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	8.2	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				
Benzene	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	2.0	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				
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: L0504026-02  
 MW-204S-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 20:44		TT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104.	%		70-130			
Toluene-d8	95.0	%		70-130			
4-Bromofluorobenzene	93.0	%		70-130			
Dibromofluoromethane	97.0	%		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: L0504026-03 Date Collected: 13-APR-2005 00:00  
 DUP-012-20050413-01 Date Received : 14-APR-2005  
 Sample Matrix: WATER Date Reported : 21-APR-2005  
 Condition of Sample: Satisfactory Field Prep: Field Filtered  
 Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	0419 21:25		TT
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	8.4	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				
Benzene	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	1.9	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				
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: L0504026-03  
 DUP-012-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 21:25		TT
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	107.	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	94.0	%		70-130			
Dibromofluoromethane	100.	%		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:	L0504026-04	Date Collected:	13-APR-2005 11:45
	MW-204D-20050413-01	Date Received :	14-APR-2005
Sample Matrix:	WATER	Date Reported :	21-APR-2005
Condition of Sample:	Satisfactory	Field Prep:	Field Filtered
Number & Type of Containers:	1-Plastic,2-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	4.2	mg/l	2.0	60 6010B	0419 13:35	0420 12:58	M
Volatile Organics by MCP 8260B				60 8260B			0419 22:05 TT
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				
Benzene	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	0.95	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				
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				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0504026-04  
 MW-204D-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 22:05		TT
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	103.	%		70-130			
Toluene-d8	95.0	%		70-130			
4-Bromofluorobenzene	95.0	%		70-130			
Dibromofluoromethane	96.0	%		70-130			

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



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0504026-05  
 MW-212-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 22:45		TT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104.	%		70-130			
Toluene-d8	95.0	%		70-130			
4-Bromofluorobenzene	95.0	%		70-130			
Dibromofluoromethane	98.0	%		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: L0504026-06 Date Collected: 13-APR-2005 14:20  
 MW-212M-20050413-01 Date Received : 14-APR-2005  
 Sample Matrix: WATER Date Reported : 21-APR-2005  
 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	0419 23:25 TT		
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				
Benzene	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	2.2	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				
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: L0504026-06  
 MW-212M-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 23:25 TT		
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	105.	%		70-130			
Toluene-d8	96.0	%		70-130			
4-Bromofluorobenzene	96.0	%		70-130			
Dibromofluoromethane	96.0	%		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: L0504026

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 01,04 (WG199630-2, WG199630-3)					
Sodium, Dissolved	110	110	0	20	75-125
Volatile Organics by MCP 8260B for sample(s) 01-06 (WG199684-1, WG199684-2)					
Methylene chloride	107	105	2	25	70-130
1,1-Dichloroethane	112	108	4	25	70-130
Chloroform	104	102	2	25	70-130
Carbon tetrachloride	103	99	4	25	70-130
1,2-Dichloropropane	106	103	3	25	70-130
Dibromochloromethane	94	94	0	25	70-130
1,1,2-Trichloroethane	110	109	1	25	70-130
Tetrachloroethene	106	103	3	25	70-130
Chlorobenzene	104	100	4	25	70-130
1,2-Dichloroethane	115	117	2	25	70-130
1,1,1-Trichloroethane	107	105	2	25	70-130
Bromodichloromethane	98	98	0	25	70-130
trans-1,3-Dichloropropene	101	100	1	25	70-130
cis-1,3-Dichloropropene	100	99	1	25	70-130
Bromoform	84	84	0	50	70-130
1,1,2,2-Tetrachloroethane	100	101	1	25	70-130
Benzene	109	107	2	25	70-130
Chloromethane	99	95	4	50	70-130
Vinyl chloride	112	105	6	25	70-130
Chloroethane	116	111	4	25	70-130
1,1-Dichloroethene	104	101	3	25	70-130
trans-1,2-Dichloroethene	108	105	3	25	70-130
Trichloroethene	109	106	3	25	70-130
1,2-Dichlorobenzene	101	100	1	25	70-130
1,3-Dichlorobenzene	103	100	3	25	70-130
1,4-Dichlorobenzene	101	99	2	25	70-130
Methyl tert butyl ether	95	97	2	25	70-130
cis-1,2-Dichloroethene	111	107	4	25	70-130
Dichlorodifluoromethane	78	73	7	50	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	102	100	2	25	70-130
o-Chlorotoluene	88	91	3	25	70-130
p-Chlorotoluene	102	98	4	25	70-130
Hexachlorobutadiene	89	90	1	25	70-130
1,2,4-Trichlorobenzene	88	91	3	25	70-130
Surrogate (s)					
1,2-Dichloroethane-d4	109	103	6		70-130
Toluene-d8	99	93	6		70-130
4-Bromofluorobenzene	96	91	5		70-130
Dibromofluoromethane	101	98	3		70-130



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0504026

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01,04 (WG199630-1)							
Dissolved Metals by MCP 6000/7000 series <span style="float: right;">60 6010B</span>							
Sodium, Dissolved	ND	mg/l	2.0	60 6010B	0419 13:35	0420 12:19	M
Blank Analysis for sample(s) 01-06 (WG199684-3)							
Volatile Organics by MCP 8260B <span style="float: right;">60 8260B</span>							
Methylene chloride	ND	ug/l	5.0				0419 16:02 TT
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				
Benzene	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				
Methyl tert butyl ether	ND	ug/l	1.0				
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				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	108.	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	98.0	%	70-130				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0504026

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-06 (WG199684-3)							
Volatile Organics by MCP 8260B continued							
Dibromofluoromethane	101.	%	70-130	60 8260B		0419 16:02 TT	

ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I

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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.  
NI Not Ignitable.  
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: L0504026

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
L0504026-01A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-01B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-01C	Plastic 250ml HNO3 preserved	B	<2	0.3 C	Y	Absent	MCP-NA-6010S
L0504026-02A	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-02B	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-02C	Plastic 250ml HNO3 preserved	B	<2	0.3 C	Y	Absent	MCP
L0504026-03A	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-03B	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-03C	Plastic 250ml HNO3 preserved	B	<2	0.3 C	Y	Absent	MCP
L0504026-04A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-04B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-04C	Plastic 250ml HNO3 preserved	B	<2	0.3 C	Y	Absent	MCP-NA-6010S
L0504026-05A	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-05B	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-06A	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504026-06B	Vial Na2S2O3 preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID    Comments

