

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:** L0306315
Address: 399 Boylston Street
6th Floor **Date Received:** 27-JUN-2003
Boston, MA 02116 **Date Reported:** 03-JUL-2003
Attn: Ms. Viktoria Zoltay **Delivery Method:** Alpha
Project Number: 1992.07
Site: RAYTHEON

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0306315-01	MW-117	WAYLAND, MA
L0306315-02	DUP	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:Ellen M. Collins

Ellen M. Collins - Technical Director
This document electronically signed

**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: L0306315-01	Date Collected: 26-JUN-2003 10:05
MW-117	Date Received : 27-JUN-2003
Sample Matrix: WATER	Date Reported : 03-JUL-2003
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by GC 8021				1 8021B	0630 23:27 MM	
Bromodichloromethane	2.4	ug/l	0.50			
Bromoform	ND	ug/l	0.50			
Carbon tetrachloride	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
Dibromochloromethane	ND	ug/l	5.0			
Bromomethane/Chloroethane	ND	ug/l	5.0			
Chloroform	4.1	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	0.50			
1,3-Dichlorobenzene	ND	ug/l	0.50			
1,4-Dichlorobenzene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1-Dichloroethene	ND	ug/l	0.50			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
Methylene chloride	ND	ug/l	5.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Tetrachloroethene	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.50			
Trichloroethene	1.7	ug/l	0.50			
Trichlorofluoromethane	ND	ug/l	0.50			
2-Chloroethylvinyl ether	ND	ug/l	5.0			
Chloromethane	ND	ug/l	5.0			
Vinyl Chloride	ND	ug/l	2.0			
Surrogate(s)	Recovery		QC Criteria			
4-Bromochlorobenzene	75.0	%	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:	L0306315-02	Date Collected:	26-JUN-2003 00:00
	DUP	Date Received :	27-JUN-2003
Sample Matrix:	WATER	Date Reported :	03-JUL-2003
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	2-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by GC 8021				1 8021B	0701 02:05 MM	
Bromodichloromethane	2.9	ug/l	0.50			
Bromoform	ND	ug/l	0.50			
Carbon tetrachloride	ND	ug/l	0.50			
Chlorobenzene	ND	ug/l	0.50			
Dibromochloromethane	ND	ug/l	5.0			
Bromomethane/Chloroethane	ND	ug/l	5.0			
Chloroform	4.5	ug/l	0.50			
1,2-Dichlorobenzene	ND	ug/l	0.50			
1,3-Dichlorobenzene	ND	ug/l	0.50			
1,4-Dichlorobenzene	ND	ug/l	0.50			
Dichlorodifluoromethane	ND	ug/l	5.0			
1,1-Dichloroethane	ND	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1-Dichloroethene	ND	ug/l	0.50			
cis-1,2-Dichloroethene	ND	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.50			
1,2-Dichloropropane	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
Methylene chloride	ND	ug/l	5.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Tetrachloroethene	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
1,1,2-Trichloroethane	ND	ug/l	0.50			
Trichloroethene	2.0	ug/l	0.50			
Trichlorofluoromethane	ND	ug/l	0.50			
2-Chloroethylvinyl ether	ND	ug/l	5.0			
Chloromethane	ND	ug/l	5.0			
Vinyl Chloride	ND	ug/l	2.0			
Surrogate(s)	Recovery		QC Criteria			
4-Bromochlorobenzene	87.0	%	70-130			

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0306315

Parameter	% Recovery	QC Criteria
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Volatile Organics by GC 8021 LCS for sample(s) 01-02 (WG144385)		
Chlorobenzene	105	70-130
1,1-Dichloroethene	102	70-130
Trichloroethene	95	70-130
Surrogate(s)		
4-Bromochlorobenzene	86	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0306315

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by GC 8021 for sample(s) 01-02 (L0306315-01, WG144385)					
Chlorobenzene	103	108	5	20	70-130
1,1-Dichloroethene	99	104	5	20	70-130
Trichloroethene	91	98	7	20	70-130
Surrogate(s)					
4-Bromochlorobenzene	79	78	1		70-130

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0306315

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-02 (WG144385-4)							
Volatile Organics by GC 8021				1	8021B	0630 22:35 MM	
Bromodichloromethane	ND	ug/l	0.50				
Bromoform	ND	ug/l	0.50				
Carbon tetrachloride	ND	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
Dibromochloromethane	ND	ug/l	5.0				
Bromomethane/Chloroethane	ND	ug/l	5.0				
Chloroform	ND	ug/l	0.50				
1,2-Dichlorobenzene	ND	ug/l	0.50				
1,3-Dichlorobenzene	ND	ug/l	0.50				
1,4-Dichlorobenzene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.50				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1-Dichloroethene	ND	ug/l	0.50				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.50				
1,2-Dichloropropane	ND	ug/l	0.50				
cis-1,3-Dichloropropene	ND	ug/l	0.50				
trans-1,3-Dichloropropene	ND	ug/l	0.50				
Methylene chloride	ND	ug/l	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Tetrachloroethene	ND	ug/l	0.50				
1,1,1-Trichloroethane	ND	ug/l	0.50				
1,1,2-Trichloroethane	ND	ug/l	0.50				
Trichloroethene	ND	ug/l	0.50				
Trichlorofluoromethane	ND	ug/l	0.50				
2-Chloroethylvinyl ether	ND	ug/l	5.0				
Chloromethane	ND	ug/l	5.0				
Vinyl Chloride	ND	ug/l	2.0				
Surrogate(s)	Recovery			QC Criteria			
4-Bromochlorobenzene	80.0	%		70-130			

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Update III, 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.

