

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:** L0212059
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 **Date Received:** 25-NOV-2002
Attn: Mr. Joe Fiacco **Date Reported:** 05-DEC-2002
Project Number: 143.78 **Delivery Method:** Alpha
Site: RAYTHEON WAYLAND

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0212059-01	B-4: 15'-20'	WAYLAND, MA
L0212059-02	B-1: 20'-24'	WAYLAND, MA
L0212059-03	B-2: 14'-18'	WAYLAND, MA
L0212059-04	B-3: 25'-30'	WAYLAND, MA
L0212059-05	DUP-1	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

Scott McLean - Technical Director
This document electronically signed

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0212059

Alpha Report L0212059:

Report submission

At the request of the client, the Total Solids result for the sample identified as DUP-1 were obtained from the sample identified as B-4:15'-20'.

**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: L0212059-01	Date Collected: 23-NOV-2002 13:00
B-4: 15'-20'	Date Received : 25-NOV-2002
Sample Matrix: SOIL	Date Reported : 05-DEC-2002
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 1-Plastic,3-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Solids, Total	81.	%	0.10	30 2540G	1127 15:30	NL
Volatile Organics 8260 via Low 5035				1 8260B	1204 11:45	BT
Methylene chloride	ND	ug/kg	18.			
1,1-Dichloroethane	ND	ug/kg	2.7			
Chloroform	ND	ug/kg	2.7			
Carbon tetrachloride	ND	ug/kg	1.8			
1,2-Dichloropropane	ND	ug/kg	6.4			
Dibromochloromethane	ND	ug/kg	1.8			
1,1,2-Trichloroethane	ND	ug/kg	2.7			
Tetrachloroethene	ND	ug/kg	1.8			
Chlorobenzene	ND	ug/kg	1.8			
Trichlorofluoromethane	ND	ug/kg	9.1			
1,2-Dichloroethane	ND	ug/kg	1.8			
1,1,1-Trichloroethane	ND	ug/kg	1.8			
Bromodichloromethane	ND	ug/kg	1.8			
trans-1,3-Dichloropropene	ND	ug/kg	1.8			
cis-1,3-Dichloropropene	ND	ug/kg	1.8			
1,1-Dichloropropene	ND	ug/kg	9.1			
Bromoform	ND	ug/kg	7.3			
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.8			
Benzene	ND	ug/kg	1.8			
Toluene	ND	ug/kg	2.7			
Ethylbenzene	ND	ug/kg	1.8			
Chloromethane	ND	ug/kg	9.1			
Bromomethane	ND	ug/kg	3.6			
Vinyl chloride	ND	ug/kg	3.6			
Chloroethane	ND	ug/kg	3.6			
1,1-Dichloroethene	ND	ug/kg	1.8			
trans-1,2-Dichloroethene	ND	ug/kg	2.7			
Trichloroethene	ND	ug/kg	1.8			
1,2-Dichlorobenzene	ND	ug/kg	9.1			
1,3-Dichlorobenzene	ND	ug/kg	9.1			
1,4-Dichlorobenzene	ND	ug/kg	9.1			
Methyl tert butyl ether	ND	ug/kg	3.6			
p/m-Xylene	ND	ug/kg	1.8			
o-Xylene	ND	ug/kg	1.8			
cis-1,2-Dichloroethene	ND	ug/kg	1.8			
Dibromomethane	ND	ug/kg	18.			

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0212059-01
 B-4: 15'-20'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via Low 5035 continued				1	8260B	1204	11:45 BT
1,4-Dichlorobutane	ND	ug/kg	18.				
Iodomethane	ND	ug/kg	18.				
1,2,3-Trichloropropane	ND	ug/kg	18.				
Styrene	ND	ug/kg	1.8				
Dichlorodifluoromethane	ND	ug/kg	18.				
Acetone	29.	ug/kg	18.				
Carbon disulfide	ND	ug/kg	18.				
2-Butanone	ND	ug/kg	18.				
Vinyl acetate	ND	ug/kg	18.				
4-Methyl-2-pentanone	ND	ug/kg	18.				
2-Hexanone	ND	ug/kg	18.				
Ethyl methacrylate	ND	ug/kg	18.				
Acrolein	ND	ug/kg	45.				
Acrylonitrile	ND	ug/kg	18.				
Bromochloromethane	ND	ug/kg	9.1				
Tetrahydrofuran	ND	ug/kg	36.				
2,2-Dichloropropane	ND	ug/kg	9.1				
1,2-Dibromoethane	ND	ug/kg	9.1				
1,3-Dichloropropane	ND	ug/kg	9.1				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.8				
Bromobenzene	ND	ug/kg	9.1				
n-Butylbenzene	ND	ug/kg	1.8				
sec-Butylbenzene	ND	ug/kg	1.8				
tert-Butylbenzene	ND	ug/kg	9.1				
o-Chlorotoluene	ND	ug/kg	9.1				
p-Chlorotoluene	ND	ug/kg	9.1				
1,2-Dibromo-3-chloropropane	ND	ug/kg	9.1				
Hexachlorobutadiene	ND	ug/kg	9.1				
Isopropylbenzene	ND	ug/kg	1.8				
p-Isopropyltoluene	ND	ug/kg	1.8				
Naphthalene	ND	ug/kg	9.1				
n-Propylbenzene	ND	ug/kg	1.8				
1,2,3-Trichlorobenzene	ND	ug/kg	9.1				
1,2,4-Trichlorobenzene	ND	ug/kg	9.1				
1,3,5-Trimethylbenzene	ND	ug/kg	9.1				
1,2,4-Trimethylbenzene	ND	ug/kg	9.1				
trans-1,4-Dichloro-2-butene	ND	ug/kg	9.1				
Ethyl ether	ND	ug/kg	9.1				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	100.	%					
Toluene-d8	100.	%					
4-Bromofluorobenzene	87.0	%					
Dibromofluoromethane	95.0	%					

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:	L0212059-02	Date Collected:	23-NOV-2002 12:09
	B-1: 20'-24'	Date Received :	25-NOV-2002
Sample Matrix:	SOIL	Date Reported :	05-DEC-2002
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers: 1-Plastic,3-Vial			

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	83.	%	0.10	30 2540G		1127 15:30	NL
Volatile Organics 8260 via Low 5035				1 8260B		1204 12:31	BT
Methylene chloride	ND	ug/kg	12.				
1,1-Dichloroethane	ND	ug/kg	1.7				
Chloroform	ND	ug/kg	1.7				
Carbon tetrachloride	ND	ug/kg	1.2				
1,2-Dichloropropane	ND	ug/kg	4.0				
Dibromochloromethane	ND	ug/kg	1.2				
1,1,2-Trichloroethane	ND	ug/kg	1.7				
Tetrachloroethene	ND	ug/kg	1.2				
Chlorobenzene	ND	ug/kg	1.2				
Trichlorofluoromethane	ND	ug/kg	5.8				
1,2-Dichloroethane	ND	ug/kg	1.2				
1,1,1-Trichloroethane	ND	ug/kg	1.2				
Bromodichloromethane	ND	ug/kg	1.2				
trans-1,3-Dichloropropene	ND	ug/kg	1.2				
cis-1,3-Dichloropropene	ND	ug/kg	1.2				
1,1-Dichloropropene	ND	ug/kg	5.8				
Bromoform	ND	ug/kg	4.6				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.2				
Benzene	ND	ug/kg	1.2				
Toluene	ND	ug/kg	1.7				
Ethylbenzene	ND	ug/kg	1.2				
Chloromethane	ND	ug/kg	5.8				
Bromomethane	ND	ug/kg	2.3				
Vinyl chloride	ND	ug/kg	2.3				
Chloroethane	ND	ug/kg	2.3				
1,1-Dichloroethene	ND	ug/kg	1.2				
trans-1,2-Dichloroethene	ND	ug/kg	1.7				
Trichloroethene	ND	ug/kg	1.2				
1,2-Dichlorobenzene	ND	ug/kg	5.8				
1,3-Dichlorobenzene	ND	ug/kg	5.8				
1,4-Dichlorobenzene	ND	ug/kg	5.8				
Methyl tert butyl ether	ND	ug/kg	2.3				
p/m-Xylene	ND	ug/kg	1.2				
o-Xylene	ND	ug/kg	1.2				
cis-1,2-Dichloroethene	ND	ug/kg	1.2				
Dibromomethane	ND	ug/kg	12.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0212059-02
 B-1: 20'-24'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via Low 5035 continued				1	8260B	1204	12:31 BT
1,4-Dichlorobutane	ND	ug/kg	12.				
Iodomethane	ND	ug/kg	12.				
1,2,3-Trichloropropane	ND	ug/kg	12.				
Styrene	ND	ug/kg	1.2				
Dichlorodifluoromethane	ND	ug/kg	12.				
Acetone	120	ug/kg	12.				
Carbon disulfide	ND	ug/kg	12.				
2-Butanone	16.	ug/kg	12.				
Vinyl acetate	ND	ug/kg	12.				
4-Methyl-2-pentanone	ND	ug/kg	12.				
2-Hexanone	ND	ug/kg	12.				
Ethyl methacrylate	ND	ug/kg	12.				
Acrolein	ND	ug/kg	29.				
Acrylonitrile	ND	ug/kg	12.				
Bromochloromethane	ND	ug/kg	5.8				
Tetrahydrofuran	ND	ug/kg	23.				
2,2-Dichloropropane	ND	ug/kg	5.8				
1,2-Dibromoethane	ND	ug/kg	5.8				
1,3-Dichloropropane	ND	ug/kg	5.8				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.2				
Bromobenzene	ND	ug/kg	5.8				
n-Butylbenzene	ND	ug/kg	1.2				
sec-Butylbenzene	ND	ug/kg	1.2				
tert-Butylbenzene	ND	ug/kg	5.8				
o-Chlorotoluene	ND	ug/kg	5.8				
p-Chlorotoluene	ND	ug/kg	5.8				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.8				
Hexachlorobutadiene	ND	ug/kg	5.8				
Isopropylbenzene	ND	ug/kg	1.2				
p-Isopropyltoluene	ND	ug/kg	1.2				
Naphthalene	ND	ug/kg	5.8				
n-Propylbenzene	ND	ug/kg	1.2				
1,2,3-Trichlorobenzene	ND	ug/kg	5.8				
1,2,4-Trichlorobenzene	ND	ug/kg	5.8				
1,3,5-Trimethylbenzene	ND	ug/kg	5.8				
1,2,4-Trimethylbenzene	ND	ug/kg	5.8				
trans-1,4-Dichloro-2-butene	ND	ug/kg	5.8				
Ethyl ether	ND	ug/kg	5.8				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	89.0	%					
Toluene-d8	101.	%					
4-Bromofluorobenzene	99.0	%					
Dibromofluoromethane	90.0	%					

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:	L0212059-03	Date Collected:	23-NOV-2002 16:00
	B-2: 14'-18'	Date Received :	25-NOV-2002
Sample Matrix:	SOIL	Date Reported :	05-DEC-2002
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers: 1-Plastic,3-Vial			

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	74.	%	0.10	30 2540G		1127 15:30	NL
Volatile Organics 8260 via Low 5035				1 8260B		1204 14:02	BT
Methylene chloride	ND	ug/kg	14.				
1,1-Dichloroethane	ND	ug/kg	2.1				
Chloroform	ND	ug/kg	2.1				
Carbon tetrachloride	ND	ug/kg	1.4				
1,2-Dichloropropane	ND	ug/kg	4.8				
Dibromochloromethane	ND	ug/kg	1.4				
1,1,2-Trichloroethane	ND	ug/kg	2.1				
Tetrachloroethene	ND	ug/kg	1.4				
Chlorobenzene	ND	ug/kg	1.4				
Trichlorofluoromethane	ND	ug/kg	6.9				
1,2-Dichloroethane	ND	ug/kg	1.4				
1,1,1-Trichloroethane	ND	ug/kg	1.4				
Bromodichloromethane	ND	ug/kg	1.4				
trans-1,3-Dichloropropene	ND	ug/kg	1.4				
cis-1,3-Dichloropropene	ND	ug/kg	1.4				
1,1-Dichloropropene	ND	ug/kg	6.9				
Bromoform	ND	ug/kg	5.5				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.4				
Benzene	ND	ug/kg	1.4				
Toluene	ND	ug/kg	2.1				
Ethylbenzene	ND	ug/kg	1.4				
Chloromethane	ND	ug/kg	6.9				
Bromomethane	ND	ug/kg	2.8				
Vinyl chloride	ND	ug/kg	2.8				
Chloroethane	ND	ug/kg	2.8				
1,1-Dichloroethene	ND	ug/kg	1.4				
trans-1,2-Dichloroethene	ND	ug/kg	2.1				
Trichloroethene	11.	ug/kg	1.4				
1,2-Dichlorobenzene	ND	ug/kg	6.9				
1,3-Dichlorobenzene	ND	ug/kg	6.9				
1,4-Dichlorobenzene	ND	ug/kg	6.9				
Methyl tert butyl ether	ND	ug/kg	2.8				
p/m-Xylene	ND	ug/kg	1.4				
o-Xylene	ND	ug/kg	1.4				
cis-1,2-Dichloroethene	ND	ug/kg	1.4				
Dibromomethane	ND	ug/kg	14.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0212059-03
 B-2: 14'-18'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via Low 5035 continued				1	8260B	1204	14:02 BT
1,4-Dichlorobutane	ND	ug/kg	14.				
Iodomethane	ND	ug/kg	14.				
1,2,3-Trichloropropane	ND	ug/kg	14.				
Styrene	ND	ug/kg	1.4				
Dichlorodifluoromethane	ND	ug/kg	14.				
Acetone	ND	ug/kg	14.				
Carbon disulfide	ND	ug/kg	14.				
2-Butanone	ND	ug/kg	14.				
Vinyl acetate	ND	ug/kg	14.				
4-Methyl-2-pentanone	ND	ug/kg	14.				
2-Hexanone	ND	ug/kg	14.				
Ethyl methacrylate	ND	ug/kg	14.				
Acrolein	ND	ug/kg	34.				
Acrylonitrile	ND	ug/kg	14.				
Bromochloromethane	ND	ug/kg	6.9				
Tetrahydrofuran	ND	ug/kg	28.				
2,2-Dichloropropane	ND	ug/kg	6.9				
1,2-Dibromoethane	ND	ug/kg	6.9				
1,3-Dichloropropane	ND	ug/kg	6.9				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.4				
Bromobenzene	ND	ug/kg	6.9				
n-Butylbenzene	ND	ug/kg	1.4				
sec-Butylbenzene	ND	ug/kg	1.4				
tert-Butylbenzene	ND	ug/kg	6.9				
o-Chlorotoluene	ND	ug/kg	6.9				
p-Chlorotoluene	ND	ug/kg	6.9				
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.9				
Hexachlorobutadiene	ND	ug/kg	6.9				
Isopropylbenzene	ND	ug/kg	1.4				
p-Isopropyltoluene	ND	ug/kg	1.4				
Naphthalene	ND	ug/kg	6.9				
n-Propylbenzene	ND	ug/kg	1.4				
1,2,3-Trichlorobenzene	ND	ug/kg	6.9				
1,2,4-Trichlorobenzene	ND	ug/kg	6.9				
1,3,5-Trimethylbenzene	ND	ug/kg	6.9				
1,2,4-Trimethylbenzene	ND	ug/kg	6.9				
trans-1,4-Dichloro-2-butene	ND	ug/kg	6.9				
Ethyl ether	ND	ug/kg	6.9				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	94.0	%					
Toluene-d8	104.	%					
4-Bromofluorobenzene	106.	%					
Dibromofluoromethane	92.0	%					

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:	L0212059-04	Date Collected:	23-NOV-2002 13:30
	B-3: 25'-30'	Date Received :	25-NOV-2002
Sample Matrix:	SOIL	Date Reported :	05-DEC-2002
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	1-Plastic,3-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	78.	%	0.10	30 2540G		1127 15:30	NL
Volatile Organics 8260 via Low 5035				1 8260B		1204 17:49	BT
Methylene chloride	ND	ug/kg	18.				
1,1-Dichloroethane	ND	ug/kg	2.7				
Chloroform	ND	ug/kg	2.7				
Carbon tetrachloride	ND	ug/kg	1.8				
1,2-Dichloropropane	ND	ug/kg	6.2				
Dibromochloromethane	ND	ug/kg	1.8				
1,1,2-Trichloroethane	ND	ug/kg	2.7				
Tetrachloroethene	ND	ug/kg	1.8				
Chlorobenzene	ND	ug/kg	1.8				
Trichlorofluoromethane	ND	ug/kg	8.9				
1,2-Dichloroethane	ND	ug/kg	1.8				
1,1,1-Trichloroethane	ND	ug/kg	1.8				
Bromodichloromethane	ND	ug/kg	1.8				
trans-1,3-Dichloropropene	ND	ug/kg	1.8				
cis-1,3-Dichloropropene	ND	ug/kg	1.8				
1,1-Dichloropropene	ND	ug/kg	8.9				
Bromoform	ND	ug/kg	7.1				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.8				
Benzene	ND	ug/kg	1.8				
Toluene	3.3	ug/kg	2.7				
Ethylbenzene	ND	ug/kg	1.8				
Chloromethane	ND	ug/kg	8.9				
Bromomethane	ND	ug/kg	3.6				
Vinyl chloride	ND	ug/kg	3.6				
Chloroethane	ND	ug/kg	3.6				
1,1-Dichloroethene	ND	ug/kg	1.8				
trans-1,2-Dichloroethene	ND	ug/kg	2.7				
Trichloroethene	5.1	ug/kg	1.8				
1,2-Dichlorobenzene	ND	ug/kg	8.9				
1,3-Dichlorobenzene	ND	ug/kg	8.9				
1,4-Dichlorobenzene	ND	ug/kg	8.9				
Methyl tert butyl ether	ND	ug/kg	3.6				
p/m-Xylene	ND	ug/kg	1.8				
o-Xylene	ND	ug/kg	1.8				
cis-1,2-Dichloroethene	ND	ug/kg	1.8				
Dibromomethane	ND	ug/kg	18.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0212059-04
 B-3: 25'-30'

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via Low 5035 continued				1	8260B	1204	17:49 BT
1,4-Dichlorobutane	ND	ug/kg	18.				
Iodomethane	ND	ug/kg	18.				
1,2,3-Trichloropropane	ND	ug/kg	18.				
Styrene	ND	ug/kg	1.8				
Dichlorodifluoromethane	ND	ug/kg	18.				
Acetone	ND	ug/kg	18.				
Carbon disulfide	ND	ug/kg	18.				
2-Butanone	ND	ug/kg	18.				
Vinyl acetate	ND	ug/kg	18.				
4-Methyl-2-pentanone	ND	ug/kg	18.				
2-Hexanone	ND	ug/kg	18.				
Ethyl methacrylate	ND	ug/kg	18.				
Acrolein	ND	ug/kg	44.				
Acrylonitrile	ND	ug/kg	18.				
Bromochloromethane	ND	ug/kg	8.9				
Tetrahydrofuran	ND	ug/kg	36.				
2,2-Dichloropropane	ND	ug/kg	8.9				
1,2-Dibromoethane	ND	ug/kg	8.9				
1,3-Dichloropropane	ND	ug/kg	8.9				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.8				
Bromobenzene	ND	ug/kg	8.9				
n-Butylbenzene	ND	ug/kg	1.8				
sec-Butylbenzene	ND	ug/kg	1.8				
tert-Butylbenzene	ND	ug/kg	8.9				
o-Chlorotoluene	ND	ug/kg	8.9				
p-Chlorotoluene	ND	ug/kg	8.9				
1,2-Dibromo-3-chloropropane	ND	ug/kg	8.9				
Hexachlorobutadiene	ND	ug/kg	8.9				
Isopropylbenzene	ND	ug/kg	1.8				
p-Isopropyltoluene	ND	ug/kg	1.8				
Naphthalene	ND	ug/kg	8.9				
n-Propylbenzene	ND	ug/kg	1.8				
1,2,3-Trichlorobenzene	ND	ug/kg	8.9				
1,2,4-Trichlorobenzene	ND	ug/kg	8.9				
1,3,5-Trimethylbenzene	ND	ug/kg	8.9				
1,2,4-Trimethylbenzene	ND	ug/kg	8.9				
trans-1,4-Dichloro-2-butene	ND	ug/kg	8.9				
Ethyl ether	ND	ug/kg	8.9				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	95.0	%					
Toluene-d8	103.	%					
4-Bromofluorobenzene	99.0	%					
Dibromofluoromethane	92.0	%					

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: L0212059-05	Date Collected: 23-NOV-2002 00:00
DUP-1	Date Received : 25-NOV-2002
Sample Matrix: SOIL	Date Reported : 05-DEC-2002
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Solids, Total	81.	%	0.10	30 2540G		1127 15:30	NL
Volatile Organics 8260 via Low 5035				1 8260B		1204 15:33	BT
Methylene chloride	ND	ug/kg	19.				
1,1-Dichloroethane	ND	ug/kg	2.9				
Chloroform	ND	ug/kg	2.9				
Carbon tetrachloride	ND	ug/kg	1.9				
1,2-Dichloropropane	ND	ug/kg	6.8				
Dibromochloromethane	ND	ug/kg	1.9				
1,1,2-Trichloroethane	ND	ug/kg	2.9				
Tetrachloroethene	ND	ug/kg	1.9				
Chlorobenzene	ND	ug/kg	1.9				
Trichlorofluoromethane	ND	ug/kg	9.6				
1,2-Dichloroethane	ND	ug/kg	1.9				
1,1,1-Trichloroethane	ND	ug/kg	1.9				
Bromodichloromethane	ND	ug/kg	1.9				
trans-1,3-Dichloropropene	ND	ug/kg	1.9				
cis-1,3-Dichloropropene	ND	ug/kg	1.9				
1,1-Dichloropropene	ND	ug/kg	9.6				
Bromoform	ND	ug/kg	7.7				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.9				
Benzene	ND	ug/kg	1.9				
Toluene	ND	ug/kg	2.9				
Ethylbenzene	ND	ug/kg	1.9				
Chloromethane	ND	ug/kg	9.6				
Bromomethane	ND	ug/kg	3.8				
Vinyl chloride	ND	ug/kg	3.8				
Chloroethane	ND	ug/kg	3.8				
1,1-Dichloroethene	ND	ug/kg	1.9				
trans-1,2-Dichloroethene	ND	ug/kg	2.9				
Trichloroethene	ND	ug/kg	1.9				
1,2-Dichlorobenzene	ND	ug/kg	9.6				
1,3-Dichlorobenzene	ND	ug/kg	9.6				
1,4-Dichlorobenzene	ND	ug/kg	9.6				
Methyl tert butyl ether	ND	ug/kg	3.8				
p/m-Xylene	ND	ug/kg	1.9				
o-Xylene	ND	ug/kg	1.9				
cis-1,2-Dichloroethene	ND	ug/kg	1.9				
Dibromomethane	ND	ug/kg	19.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0212059-05
 DUP-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics 8260 via Low 5035 continued				1	8260B	1204	15:33 BT
1,4-Dichlorobutane	ND	ug/kg	19.				
Iodomethane	ND	ug/kg	19.				
1,2,3-Trichloropropane	ND	ug/kg	19.				
Styrene	ND	ug/kg	1.9				
Dichlorodifluoromethane	ND	ug/kg	19.				
Acetone	74.	ug/kg	19.				
Carbon disulfide	ND	ug/kg	19.				
2-Butanone	ND	ug/kg	19.				
Vinyl acetate	ND	ug/kg	19.				
4-Methyl-2-pentanone	ND	ug/kg	19.				
2-Hexanone	ND	ug/kg	19.				
Ethyl methacrylate	ND	ug/kg	19.				
Acrolein	ND	ug/kg	48.				
Acrylonitrile	ND	ug/kg	19.				
Bromochloromethane	ND	ug/kg	9.6				
Tetrahydrofuran	ND	ug/kg	38.				
2,2-Dichloropropane	ND	ug/kg	9.6				
1,2-Dibromoethane	ND	ug/kg	9.6				
1,3-Dichloropropane	ND	ug/kg	9.6				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.9				
Bromobenzene	ND	ug/kg	9.6				
n-Butylbenzene	ND	ug/kg	1.9				
sec-Butylbenzene	ND	ug/kg	1.9				
tert-Butylbenzene	ND	ug/kg	9.6				
o-Chlorotoluene	ND	ug/kg	9.6				
p-Chlorotoluene	ND	ug/kg	9.6				
1,2-Dibromo-3-chloropropane	ND	ug/kg	9.6				
Hexachlorobutadiene	ND	ug/kg	9.6				
Isopropylbenzene	ND	ug/kg	1.9				
p-Isopropyltoluene	ND	ug/kg	1.9				
Naphthalene	ND	ug/kg	9.6				
n-Propylbenzene	ND	ug/kg	1.9				
1,2,3-Trichlorobenzene	ND	ug/kg	9.6				
1,2,4-Trichlorobenzene	ND	ug/kg	9.6				
1,3,5-Trimethylbenzene	ND	ug/kg	9.6				
1,2,4-Trimethylbenzene	ND	ug/kg	9.6				
trans-1,4-Dichloro-2-butene	ND	ug/kg	9.6				
Ethyl ether	ND	ug/kg	9.6				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	92.0	%					
Toluene-d8	96.0	%					
4-Bromofluorobenzene	102.	%					
Dibromofluoromethane	89.0	%					

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0212059

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-04 (L0212059-01, WG128661)					
Solids, Total	81.	81.	%	0	
Volatile Organics 8260 via Low 5035 for sample(s) 01-05 (L0211891-08, WG128451)					
Methylene chloride	ND	ND	ug/kg	NC	
1,1-Dichloroethane	ND	ND	ug/kg	NC	
Chloroform	ND	ND	ug/kg	NC	
Carbon tetrachloride	ND	ND	ug/kg	NC	
1,2-Dichloropropane	ND	ND	ug/kg	NC	
Dibromochloromethane	ND	ND	ug/kg	NC	
1,1,2-Trichloroethane	ND	ND	ug/kg	NC	
Tetrachloroethene	ND	ND	ug/kg	NC	
Chlorobenzene	ND	ND	ug/kg	NC	
Trichlorofluoromethane	ND	ND	ug/kg	NC	
1,2-Dichloroethane	ND	ND	ug/kg	NC	
1,1,1-Trichloroethane	ND	ND	ug/kg	NC	
Bromodichloromethane	ND	ND	ug/kg	NC	
trans-1,3-Dichloropropene	ND	ND	ug/kg	NC	
cis-1,3-Dichloropropene	ND	ND	ug/kg	NC	
1,1-Dichloropropene	ND	ND	ug/kg	NC	
Bromoform	ND	ND	ug/kg	NC	
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	NC	
Benzene	ND	ND	ug/kg	NC	
Toluene	ND	ND	ug/kg	NC	
Ethylbenzene	ND	ND	ug/kg	NC	
Chloromethane	ND	ND	ug/kg	NC	
Bromomethane	ND	ND	ug/kg	NC	
Vinyl chloride	ND	ND	ug/kg	NC	
Chloroethane	ND	ND	ug/kg	NC	
1,1-Dichloroethene	ND	ND	ug/kg	NC	
trans-1,2-Dichloroethene	ND	ND	ug/kg	NC	
Trichloroethene	ND	ND	ug/kg	NC	
1,2-Dichlorobenzene	ND	ND	ug/kg	NC	
1,3-Dichlorobenzene	ND	ND	ug/kg	NC	
1,4-Dichlorobenzene	ND	ND	ug/kg	NC	
Methyl tert butyl ether	ND	ND	ug/kg	NC	
p/m-Xylene	ND	ND	ug/kg	NC	
o-Xylene	ND	ND	ug/kg	NC	
cis-1,2-Dichloroethene	ND	ND	ug/kg	NC	
Dibromomethane	ND	ND	ug/kg	NC	
1,4-Dichlorobutane	ND	ND	ug/kg	NC	
Iodomethane	ND	ND	ug/kg	NC	
1,2,3-Trichloropropane	ND	ND	ug/kg	NC	
Styrene	ND	ND	ug/kg	NC	
Dichlorodifluoromethane	ND	ND	ug/kg	NC	
Acetone	ND	ND	ug/kg	NC	
Carbon disulfide	ND	ND	ug/kg	NC	
2-Butanone	ND	ND	ug/kg	NC	
Vinyl acetate	ND	ND	ug/kg	NC	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0212059

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Organics 8260 via Low 5035 for sample(s) 01-05 (L0211891-08, WG128451)					
4-Methyl-2-pentanone	ND	ND	ug/kg	NC	
2-Hexanone	ND	ND	ug/kg	NC	
Ethyl methacrylate	ND	ND	ug/kg	NC	
Acrolein	ND	ND	ug/kg	NC	
Acrylonitrile	ND	ND	ug/kg	NC	
Bromochloromethane	ND	ND	ug/kg	NC	
Tetrahydrofuran	ND	ND	ug/kg	NC	
2,2-Dichloropropane	ND	ND	ug/kg	NC	
1,2-Dibromoethane	ND	ND	ug/kg	NC	
1,3-Dichloropropane	ND	ND	ug/kg	NC	
1,1,1,2-Tetrachloroethane	ND	ND	ug/kg	NC	
Bromobenzene	ND	ND	ug/kg	NC	
n-Butylbenzene	ND	ND	ug/kg	NC	
sec-Butylbenzene	ND	ND	ug/kg	NC	
tert-Butylbenzene	ND	ND	ug/kg	NC	
o-Chlorotoluene	ND	ND	ug/kg	NC	
p-Chlorotoluene	ND	ND	ug/kg	NC	
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	NC	
Hexachlorobutadiene	ND	ND	ug/kg	NC	
Isopropylbenzene	ND	ND	ug/kg	NC	
p-Isopropyltoluene	ND	ND	ug/kg	NC	
Naphthalene	ND	ND	ug/kg	NC	
n-Propylbenzene	ND	ND	ug/kg	NC	
1,2,3-Trichlorobenzene	ND	ND	ug/kg	NC	
1,2,4-Trichlorobenzene	ND	ND	ug/kg	NC	
1,3,5-Trimethylbenzene	ND	ND	ug/kg	NC	
1,2,4-Trimethylbenzene	ND	ND	ug/kg	NC	
trans-1,4-Dichloro-2-butene	ND	ND	ug/kg	NC	
Ethyl ether	ND	ND	ug/kg	NC	
Surrogate(s)	Recovery				QC Criteria
1,2-Dichloroethane-d4	127.	128.	%	1	
Toluene-d8	110.	109.	%	1	
4-Bromofluorobenzene	101.	97.0	%	4	
Dibromofluoromethane	108.	106.	%	2	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0212059

Parameter	% Recovery	QC Criteria
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Volatile Organics 8260 via Low 5035 LCS for sample(s) 01-05 (WG128451)

Chlorobenzene	104	
Benzene	98	
Toluene	102	
1,1-Dichloroethene	92	
Trichloroethene	98	

Surrogate(s)

1,2-Dichloroethane-d4	88	
Toluene-d8	106	
4-Bromofluorobenzene	101	
Dibromofluoromethane	93	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0212059

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-05 (WG128451-13)							
Volatile Organics 8260 via Low 5035				1 8260B		1204 11:00	BT
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	1.0				
o-Xylene	ND	ug/kg	1.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,4-Dichlorobutane	ND	ug/kg	10.				
Iodomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	1.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
Vinyl acetate	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0212059

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-05 (WG128451-13)							
Volatile Organics 8260 via Low 5035 continued				1	8260B	1204	11:00 BT
Ethyl methacrylate	ND	ug/kg	10.				
Acrolein	ND	ug/kg	25.				
Acrylonitrile	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				
1,2-Dibromoethane	ND	ug/kg	5.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
trans-1,4-Dichloro-2-butene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	86.0	%					
Toluene-d8	96.0	%					
4-Bromofluorobenzene	95.0	%					
Dibromofluoromethane	85.0	%					

**ALPHA ANALYTICAL LABORATORIES
ADDENDUM I**

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Update III, 1997.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

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

LIMITATION OF LIABILITIES

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