

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L9600661  
Address: 205 Portland Street Invoice Number: 80823  
Boston, MA 02114 Date Received: 01-FEB-96  
Attn: John McTigue Date Reported: 05-FEB-96  
Project Number: 143-40 Delivery Method: Alpha  
Site: Raytheon

---

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9600661-01	MW-13	Wayland, MA

---

Authorized by: James R. Roth →  
James R. Roth, PhD - Laboratory Manager

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9600661-01 Date Collected: 31-JAN-96  
 MW-13 Date Received : 01-FEB-96  
 Sample Matrix: WATER Date Reported : 05-FEB-96  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 2 Vial, 2 Amber Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	ID
						PREP ANALYSIS	
Volatile Organics by GC/MS				1	8260	05-Feb	DB
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	1.6	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	6.1	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	1.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.0				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	11.	ug/l	1.0				
Toluene	ND	ug/l	1.5				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	2.0				
Vinyl chloride	ND	ug/l	3.5				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.5				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	47.	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	10.				
1,3-Dichlorobenzene	ND	ug/l	10.				
1,4-Dichlorobenzene	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	10.				
Xylenes	ND	ug/l	1.0				
cis-1,2-Dichloroethene	77.	ug/l	1.0				
Dibromomethane	ND	ug/l	10.				
1,4-Dichlorobutane	ND	ug/l	10.				
Iodomethane	ND	ug/l	10.				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9600661-01  
MW-13

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Volatile Organics by GC/MS continued				1	8260	05-Feb	DB
1,2,3-Trichloropropane	ND	ug/l	10.				
Styrene	ND	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	10.				
Acetone	ND	ug/l	10.				
Carbon Disulfide	ND	ug/l	10.				
2-Butanone	ND	ug/l	4.5				
Vinyl Acetate	ND	ug/l	10.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Ethyl methacrylate	ND	ug/l	10.				
Acrolein	ND	ug/l	25.				
Acrylonitrile	ND	ug/l	10.				
Bromochloromethane	ND	ug/l	1.0				
2,2-Dichloropropane	ND	ug/l	1.0				
1,2-Dibromoethane	ND	ug/l	1.0				
1,3-Dichloropropane	ND	ug/l	1.0				
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0				
Bromobenzene	ND	ug/l	1.0				
n-Butylbenzene	ND	ug/l	1.0				
sec-Butylbenzene	1.2	ug/l	1.0				
tert-Butylbenzene	ND	ug/l	1.0				
o-Chlorotoluene	ND	ug/l	1.0				
p-Chlorotoluene	ND	ug/l	1.0				
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0				
Hexachlorobutadiene	ND	ug/l	1.0				
Isopropylbenzene	3.4	ug/l	1.0				
p-Isopropyltoluene	ND	ug/l	1.0				
Naphthalene	ND	ug/l	1.0				
n-Propylbenzene	ND	ug/l	1.0				
1,2,3-Trichlorobenzene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	1.0				
1,3,5-Trimethylbenzene	ND	ug/l	1.0				
1,2,4-Trimethylbenzene	ND	ug/l	1.0				
trans-1,4-Dichloro-2-butene	ND	ug/l	1.0				
Ethyl ether	ND	ug/l	25.				
SURROGATE RECOVERY							
Toluene-d8	103.	%					
4-Bromofluorobenzene	105.	%					
Dibromofluoromethane	101.	%					

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

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L9600661

---

Parameter	MS %	MSD %	RPD
Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 01			
1,1-Dichloroethene	112	105	6
Trichloroethene	99	91	8
Benzene	106	98	8
Toluene	108	98	10
Chlorobenzene	104	93	11

---

ALPHA ANALYTICAL LABS  
ADDENDUM I

---

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. 1986.

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.

# ALPHA

Analytical Laboratories, Inc.

Eight Walkup Drive  
Westborough, MA 01581-1019  
508-898-9220 FAX 508-898-9193

## CHAIN OF CUSTODY RECORD and ANALYSIS REQUEST RECORD

No. 36560

Sheet Lot 1  
Date Rec'd 2/5/96  
Date Due 2/5/96

Company Name: ERM-New England  
205 Portland St

Project Number: 143-40

Project Name/Location: Raytheon, Wayland

Date Received in Lab: 2/1

Company Address: Boston, MA 02114

Phone Number: (617) 742-8228  
FAX No.: 720-5742

Project Manager: John McTigue

Alpha Job Number: (Lab use only) 9600661

ALPHA Lab # (Lab Use Only)	Sample I.D.	Container Codes: P = Plastic V = Vial C = Cube G = Glass A = Amber Glass B = Bacteria Container O = Other	Containers (number/type)	Matrix / Source	Method Preserve. (number of containers)						Solubles - F.E.	Sampling Date   Time	MATRIX / SOURCE CODES MW = Monitoring Well RO = Runoff O = Outfall W = Well LF = Landfill L = Lake/Pond/Ocean I = Influent E = Effluent DW = Drinking Water R = River Stream S = Soil SG = Sludge B = Bottom Sediment X1 = Other X2 = Other	Analysis Requested	
					Unpres.	Ice	Nitric	Sulfuric	HCl	Other					
661.1	MW-13		2V2A	MW	2						2	1/3/96	11:10	VOL 8260 TPH-8100	Please hold TPH analysis until further notice

2-DAY TURN-AROUND

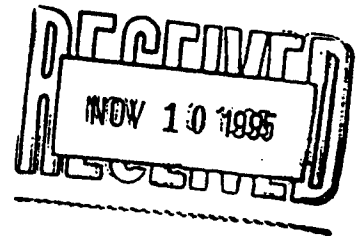
Sampler's Signature	Affiliation	Date	Time	NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
<u>John R. DiAgosto</u>	<u>Geologist</u>	<u>1/31/96</u>	<u>2:35</u>	1	<u>John R. DiAgosto</u>	<u>[Signature]</u>	<u>2/1/96</u>	<u>1515</u>
				2	<u>[Signature]</u>	<u>[Signature]</u>	<u>2/1</u>	<u>1645</u>
				3				
				4				

ADDITIONAL COMMENTS:  
Please fax results to our office on 2/5/96

*Sediment*

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220



MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

CERTIFICATE OF ANALYSIS

Client: ERM-New England

Laboratory Job Number: L9508187

Address: 205 Portland Street

Invoice Number: 78670

Boston, MA 02114

Date Received: 25-OCT-95

Attn: Chris McKenna

Date Reported: 08-NOV-95

Project Number: 143-40

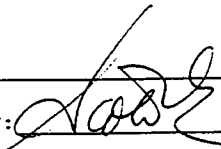
Delivery Method: Alpha

Site: Raytheon

---

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9508187-01	SD-1	Wayland, MA
L9508187-02	SB-3 S1	Wayland, MA
L9508187-03	SB-8 S1	Wayland, MA
L9508187-04	SB-7 S4	Wayland, MA
L9508187-05	SB-6 S5	Wayland, MA
L9508187-06	SB-2 S2	Wayland, MA

---

Authorized by: 

Scott McLean - Laboratory Director



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9508187-01 Date Collected: 24-OCT-95  
 SD-1 Date Received : 25-OCT-95  
 Sample Matrix: SOIL Date Reported : 08-NOV-95  
 Condition of Sample: Satisfactory Field Prep: None  
 Number & Type of Containers: 4 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Solids, Total	82.	%	0.10	3	2540B	06-Nov	ST
Total Metals				1	3005/3050		
Arsenic, Total	11.	mg/kg	0.20	1	6010	26-Oct 30-Oct	GF
Barium, Total	19.	mg/kg	2.0	1	6010	26-Oct 30-Oct	GF
Cadmium, Total	1.1	mg/kg	0.40	1	6010	26-Oct 30-Oct	GF
Chromium, Total	140	mg/kg	0.80	1	6010	26-Oct 30-Oct	GF
Lead, Total	850	mg/kg	2.0	1	6010	26-Oct 30-Oct	GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471	06-Nov 07-Nov	DM
Selenium, Total	ND	mg/kg	0.40	1	6010	26-Oct 30-Oct	GF
Silver, Total	ND	mg/kg	0.40	1	6010	26-Oct 30-Oct	GF

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L9508187-01  
SD-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Volatile Organics by GC/MS				1	8260	02-Nov 02-Nov	DB
Methylene chloride	ND	ug/kg	25.				
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Dibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethane	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5.0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	5.0				
cis-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Carbon Disulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl Acetate	ND	ug/kg	50.				
4-Methyl-2-pentanone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methacrylate	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9508187-01  
SD-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Volatile Organics by GC/MS continued				1	8260	02-Nov 02-Nov	DB
Acrylonitrile	ND	ug/kg	50.				
Bromochloromethane	ND	ug/kg	25.				
2,2-Dichloropropane	ND	ug/kg	25.				
1,2-Dibromoethane	ND	ug/kg	25.				
1,3-Dichloropropane	ND	ug/kg	25.				
1,1,1,2-Tetrachloroethane	ND	ug/kg	25.				
Bromobenzene	ND	ug/kg	25.				
n-Butylbenzene	ND	ug/kg	25.				
sec-Butylbenzene	ND	ug/kg	25.				
tert-Butylbenzene	ND	ug/kg	25.				
o-Chlorotoluene	ND	ug/kg	25.				
p-Chlorotoluene	ND	ug/kg	25.				
1,2-Dibromo-3-chloropropane	ND	ug/kg	25.				
Hexachlorobutadiene	ND	ug/kg	25.				
Isopropylbenzene	ND	ug/kg	25.				
p-Isopropyltoluene	ND	ug/kg	25.				
Naphthalene	ND	ug/kg	25.				
n-Propylbenzene	ND	ug/kg	25.				
1,2,3-Trichlorobenzene	ND	ug/kg	25.				
1,2,4-Trichlorobenzene	ND	ug/kg	25.				
1,3,5-Trimethylbenzene	ND	ug/kg	25.				
1,2,4-Trimethylbenzene	ND	ug/kg	25.				
trans-1,4-Dichloro-2-butene	ND	ug/kg	25.				
Ethyl ether	ND	ug/kg	130				
SURROGATE RECOVERY							
Toluene-d8	109.	%					
4-Bromofluorobenzene	109.	%					
Dibromofluoromethane	105.	%					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9508187-01  
SD-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Semi-volatile Organics by GC/MS				1	8270	31-Oct 08-Nov	IG
Acenaphthene	ND	ug/kg	260				
Benzidine	ND	ug/kg	2200				
1,2,4-Trichlorobenzene	ND	ug/kg	330				
Hexachlorobenzene	ND	ug/kg	260				
Bis(2-chloroethyl) ether	ND	ug/kg	280				
2-Chloronaphthalene	ND	ug/kg	280				
1,2-Dichlorobenzene	ND	ug/kg	260				
1,3-Dichlorobenzene	ND	ug/kg	300				
1,4-Dichlorobenzene	ND	ug/kg	220				
3,3'-Dichlorobenzidine	ND	ug/kg	600				
2,4-Dinitrotoluene	ND	ug/kg	330				
2,6-Dinitrotoluene	ND	ug/kg	260				
Azobenzene	ND	ug/kg	260				
Fluoranthene	ND	ug/kg	260				
4-Chlorophenyl phenyl ether	ND	ug/kg	280				
4-Bromophenyl phenyl ether	ND	ug/kg	260				
Bis(2-chloroisopropyl) ether	ND	ug/kg	190				
Bis(2-chloroethoxy)methane	ND	ug/kg	200				
Hexachlorobutadiene	ND	ug/kg	740				
Hexachlorocyclopentadiene	ND	ug/kg	710				
Hexachloroethane	ND	ug/kg	470				
Isophorone	ND	ug/kg	220				
Naphthalene	ND	ug/kg	200				
Nitrobenzene	ND	ug/kg	180				
NitrosoDiphenylAmine (NDPA) /DPA	ND	ug/kg	220				
n-Nitrosodi-n-propylamine	ND	ug/kg	240				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	860				
Butyl benzyl phthalate	ND	ug/kg	190				
Di-n-butylphthalate	ND	ug/kg	260				
Di-n-octylphthalate	ND	ug/kg	220				
Diethyl phthalate	ND	ug/kg	470				
Dimethyl phthalate	ND	ug/kg	470				
Benzo(a)anthracene	ND	ug/kg	300				
Benzo(a)pyrene	ND	ug/kg	350				
Benzo(b)fluoranthene	ND	ug/kg	330				
Benzo(k)fluoranthene	ND	ug/kg	330				
Chrysene	ND	ug/kg	300				
Acenaphthylene	ND	ug/kg	240				
Anthracene	ND	ug/kg	220				
Benzo(ghi)perylene	ND	ug/kg	470				
Fluorene	ND	ug/kg	260				
Phenanthrene	ND	ug/kg	240				
Dibenzo(a,h)anthracene	ND	ug/kg	450				
Indeno(1,2,3-cd)pyrene	ND	ug/kg	450				
Pyrene	ND	ug/kg	260				
Aniline	ND	ug/kg	930				
4-Chloroaniline	ND	ug/kg	370				
1-Methylnaphthalene	ND	ug/kg	650				

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L9508187-01  
SD-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Semi-volatile Organics by GC/MS continued							IG
				1	8270	31-Oct 08-Nov	
2-Nitroaniline	ND	ug/kg	300				
3-Nitroaniline	ND	ug/kg	560				
4-Nitroaniline	ND	ug/kg	540				
Dibenzofuran	ND	ug/kg	190				
a,a-Dimethylphenethylamine	ND	ug/kg	4300				
Hexachloropropene	ND	ug/kg	1900				
Nitrosodi-n-butylamine	ND	ug/kg	450				
2-Methylnaphthalene	ND	ug/kg	170				
Tetrachlorobenzene	ND	ug/kg	1200				
Pentachlorobenzene	ND	ug/kg	1200				
a-Naphthalamine	ND	ug/kg	1900				
b-Naphthalamine	ND	ug/kg	860				
Acetophenetidide	ND	ug/kg	930				
Dimethoate	ND	ug/kg	1900				
4-Aminobiphenyl	ND	ug/kg	970				
Pentachloronitrobenzene	ND	ug/kg	370				
Isodrin	ND	ug/kg	350				
p-Dimethylaminoazobenzene	ND	ug/kg	670				
Chlorobenzilate	ND	ug/kg	1500				
Bis (2-ethylhexyl) adipate	ND	ug/kg	300				
3-Methylcholanthrene	ND	ug/kg	1900				
Ethylmethanesulfonate	ND	ug/kg	1400				
Acetophenone	ND	ug/kg	450				
Nitrosodipiperidine	ND	ug/kg	1900				
7,12-Dimethylbenz (a) anthracene	ND	ug/kg	2200				
n-Nitrosodimethylamine	ND	ug/kg	3700				
2,4,6-Trichlorophenol	ND	ug/kg	190				
p-Chloro-m-cresol	ND	ug/kg	280				
2-Chlorophenol	ND	ug/kg	300				
2,4-Dichlorophenol	ND	ug/kg	930				
2,4-Dimethylphenol	ND	ug/kg	220				
2-Nitrophenol	ND	ug/kg	300				
4-Nitrophenol	ND	ug/kg	1100				
2,4-Dinitrophenol	ND	ug/kg	1400				
4,6-Dinitro-o-cresol	ND	ug/kg	1600				
Pentachlorophenol	ND	ug/kg	650				
Phenol	ND	ug/kg	780				
Cresol, Total	ND	ug/kg	670				
2,4,5-Trichlorophenol	ND	ug/kg	260				
2,6-Dichlorophenol	ND	ug/kg	450				
Benzoic Acid	ND	ug/kg	3700				
Benzyl Alcohol	ND	ug/kg	540				
SURROGATE RECOVERY							
2-Fluorophenol	49.0	%					
Phenol-d6	47.0	%					
Nitrobenzene-d5	56.0	%					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9508187-01  
SD-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Semi-volatile Organics by GC/MS continued				1	8270	31-Oct 08-Nov	IG
2-Fluorobiphenyl	55.0	%					
2,4,6-Tribromophenol	42.0	%					
4-Terphenyl-d14	58.0	%					
Polychlorinated Biphenyls				1	8080	31-Oct 03-Nov	DB
Arochlor 1221	ND	ug/kg	250				
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	440	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	36.0	%					
Decachlorobiphenyl	35.0	%					
Organochlorine Pesticides				1	8080	31-Oct 03-Nov	DB
Delta-BHC	ND	ug/kg	50.				
Lindane	ND	ug/kg	50.				
Alpha-BHC	ND	ug/kg	50.				
Beta-BHC	ND	ug/kg	50.				
Heptachlor	ND	ug/kg	50.				
Aldrin	ND	ug/kg	50.				
Heptachlor epoxide	ND	ug/kg	50.				
Endrin	ND	ug/kg	50.				
Endrin aldehyde	ND	ug/kg	50.				
Endrin ketone	ND	ug/kg	50.				
Dieldrin	ND	ug/kg	50.				
4,4'-DDE	ND	ug/kg	50.				
4,4'-DDD	ND	ug/kg	50.				
4,4'-DDT	ND	ug/kg	50.				
Endosulfan I	ND	ug/kg	50.				
Endosulfan II	ND	ug/kg	50.				
Endosulfan sulfate	ND	ug/kg	50.				
Methoxychlor	ND	ug/kg	50.				
Toxaphene	ND	ug/kg	100				
Chlordane	ND	ug/kg	50.				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	36.0	%					
Decachlorobiphenyl	35.0	%					

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

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

CERTIFICATE OF ANALYSIS

Client: ERM-New England  
Address: 205 Portland Street  
Boston, MA 02114  
Attn: John Drobinski  
Project Number: 143-40  
Site: Raytheon

Laboratory Job Number: L9508941  
Invoice Number: 79088  
Date Received: 20-NOV-95  
Date Reported: 21-NOV-95  
Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9508941-01	SD-4	Wayland, MA
L9508941-02	SD-3	Wayland, MA
L9508941-03	SD-2	Wayland, MA
L9508941-04	MW-7	Wayland, MA
L9508941-05	RAY-01 A	Wayland, MA
L9508941-06	TRIP BLANK	Wayland, MA
L9508941-07	RAY-01 B	Wayland, MA

Authorized by: James R. Roth

James R. Roth, PhD - Laboratory Manager

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9508941-03  
 SD-2  
 Sample Matrix: SOIL

Date Collected: 20-NOV-95  
 Date Received : 20-NOV-95  
 Date Reported : 21-NOV-95

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		II
						PREP	ANALYSIS	
Solids, Total	82.	%	0.10	3	2540B		21-Nov	ST
<del>Total Metals</del>								
Arsenic, Total	5.1	mg/kg	0.20	1	6010		21-Nov	21-Nov GF
Barium, Total	9.6	mg/kg	2.0	1	6010		21-Nov	21-Nov GF
Cadmium, Total	ND	mg/kg	0.40	1	6010		21-Nov	21-Nov GF
Chromium, Total	16.	mg/kg	0.80	1	6010		21-Nov	21-Nov GF
Lead, Total	130	mg/kg	2.0	1	6010		21-Nov	21-Nov GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471		21-Nov	21-Nov GF
Selenium, Total	ND	mg/kg	0.40	1	6010		21-Nov	21-Nov DM
Silver, Total	ND	mg/kg	0.40	1	6010		21-Nov	21-Nov GF
<del>Polychlorinated Biphenyls</del>								
Arochlor 1221	ND	ug/kg	250		8080		21-Nov	21-Nov DB
Arochlor 1232	ND	ug/kg	250					
Arochlor 1242/PCB 1016	ND	ug/kg	250					
Arochlor 1248	ND	ug/kg	250					
Arochlor 1254	ND	ug/kg	250					
Arochlor 1260	610	ug/kg	250					
Arochlor 1262	ND	ug/kg	250					
Arochlor 1268	ND	ug/kg	250					
SURROGATE RECOVERY								
2,4,5,6-Tetrachloro-m-xylene	112.	%						
Decachlorobiphenyl	94.0	%						

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



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9508941-02

Sample Matrix: SD-3  
SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1 Glass

Date Collected: 20-NOV-95

Date Received : 20-NOV-95

Date Reported : 21-NOV-95

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		I
						PREP	ANALYSIS	
Solids, Total	72.	%	0.10	3	2540B		21-Nov 95	
<b>Total Metals</b>						1	3005/3050	
Arsenic, Total	4.2	mg/kg	0.28	1	6010		21-Nov 21-Nov	GF
Barium, Total	26.	mg/kg	2.8	1	6010		21-Nov 21-Nov	GF
Cadmium, Total	1.1	mg/kg	0.56	1	6010		21-Nov 21-Nov	GF
Chromium, Total	15.	mg/kg	1.1	1	6010		21-Nov 21-Nov	GF
Lead, Total	49.	mg/kg	2.8	1	6010		21-Nov 21-Nov	GF
Mercury, Total	ND	mg/kg	0.35	1	6010		21-Nov 21-Nov	GF
Selenium, Total	ND	mg/kg	0.56	1	7470/7471		21-Nov 21-Nov	DM
Silver, Total	ND	mg/kg	0.56	1	6010		21-Nov 21-Nov	GF
<b>Polychlorinated Biphenyls</b>						1	8080	21-Nov 21-Nov
Arochlor 1221	ND	ug/kg	350					
Arochlor 1232	ND	ug/kg	350					
Arochlor 1242/PCB 1016	ND	ug/kg	350					
Arochlor 1248	ND	ug/kg	350					
Arochlor 1254	ND	ug/kg	350					
Arochlor 1260	640	ug/kg	350					
Arochlor 1262	ND	ug/kg	350					
Arochlor 1268	ND	ug/kg	350					
<b>SURROGATE RECOVERY</b>								
2,4,5,6-Tetrachloro-m-xylene	94.0	%						
Decachlorobiphenyl	94.0	%						

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9508941-01

Sample Matrix: SD-4  
SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1 Glass

Date Collected: 20-NOV-95

Date Received : 20-NOV-95

Date Reported : 21-NOV-95

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES PREP ANALYSIS	ID
Solids, Total	68.	%	0.10	3	2540B		
Total Metals				1	3005/3050		21-Nov ST
Arsenic, Total	11.	mg/kg	0.29	1	6010	21-Nov	21-Nov GF
Barium, Total	90.	mg/kg	2.9	1	6010	21-Nov	21-Nov GF
Cadmium, Total	3.5	mg/kg	0.59	1	6010	21-Nov	21-Nov GF
Chromium, Total	120	mg/kg	1.2	1	6010	21-Nov	21-Nov GF
Lead, Total	540	mg/kg	2.9	1	6010	21-Nov	21-Nov GF
Mercury, Total	0.46	mg/kg	0.37	1	7470/7471	21-Nov	21-Nov DM
Selenium, Total	ND	mg/kg	0.59	1	6010	21-Nov	21-Nov GF
Silver, Total	ND	mg/kg	0.59	1	6010	21-Nov	21-Nov GF
Polychlorinated Biphenyls				1	8080	21-Nov	21-Nov DB
Arochlor 1221	ND	ug/kg	370				
Arochlor 1232	ND	ug/kg	370				
Arochlor 1242/PCB 1016	ND	ug/kg	370				
Arochlor 1248	ND	ug/kg	370				
Arochlor 1254	ND	ug/kg	370				
Arochlor 1260	510	ug/kg	370				
Arochlor 1262	ND	ug/kg	370				
Arochlor 1268	ND	ug/kg	370				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	97.0	%					
Decachlorobiphenyl	101.	%					

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

## *Disposal Characterization*

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L9508905  
Address: 205 Portland Street Invoice Number: 79086  
Boston, MA 02114 Date Received: 17-NOV-95  
Attn: John McTigue Date Reported: 21-NOV-95  
Project Number: 143-40 Delivery Method: Alpha  
Site:

---

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9508905-01	C-1	Wayland, MA
L9508905-02	D-1	Wayland, MA

---

Authorized by: James R. Roth  
James R. Roth, PhD - Laboratory Manager

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9508905-01

Date Collected: 17-NOV-95

C-1

Date Received : 17-NOV-95

Sample Matrix: SOIL

Date Reported : 21-NOV-95

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		ID
						PREP	ANALYSIS	
Solids, Total	92.	%	0.10	3	2540B		20-Nov	ST
Total Metals				1	3005/3050			
Arsenic, Total	2.9	mg/kg	0.20	1	6010		20-Nov 20-Nov	GF
Barium, Total	20.	mg/kg	2.0	1	6010		20-Nov 20-Nov	GF
Cadmium, Total	ND	mg/kg	0.40	1	6010		20-Nov 20-Nov	GF
Chromium, Total	37.	mg/kg	0.80	1	6010		20-Nov 20-Nov	GF
Lead, Total	4.8	mg/kg	2.0	1	6010		20-Nov 20-Nov	GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471		18-Nov 20-Nov	DM
Selenium, Total	ND	mg/kg	0.40	1	6010		20-Nov 20-Nov	GF
Silver, Total	ND	mg/kg	0.40	1	6010		20-Nov 20-Nov	GF
TCLP Extraction				1	1311		20-Nov	
Arsenic, TCLP	ND	mg/l	1.0	1	6010		21-Nov 21-Nov	GF
Barium, TCLP	ND	mg/l	0.50	1	6010		21-Nov 21-Nov	GF
Cadmium, TCLP	ND	mg/l	0.10	1	6010		21-Nov 21-Nov	GF
Chromium, TCLP	ND	mg/l	0.20	1	6010		21-Nov 21-Nov	GF
Lead, TCLP	ND	mg/l	0.50	1	6010		21-Nov 21-Nov	GF
Mercury, TCLP	ND	mg/l	0.005	1	7470/7471		21-Nov 21-Nov	DM
Selenium, TCLP	ND	mg/l	0.50	1	6010		21-Nov 21-Nov	GF
Silver, TCLP	ND	mg/l	0.10	1	6010		21-Nov 21-Nov	GF
Polychlorinated Biphenyls				1	8080		20-Nov 21-Nov	DB
Arochlor 1221	ND	ug/kg	250					
Arochlor 1232	ND	ug/kg	250					
Arochlor 1242/PCB 1016	ND	ug/kg	250					
Arochlor 1248	ND	ug/kg	250					
Arochlor 1254	ND	ug/kg	250					
Arochlor 1260	ND	ug/kg	250					
Arochlor 1262	ND	ug/kg	250					
Arochlor 1268	ND	ug/kg	250					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9508905-01  
C-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	I
Polychlorinated Biphenyls continued				1	8080	20-Nov 21-Nov D	
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	96.0	%					
Decachlorobiphenyl	98.0	%					

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

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9508905-02  
 Date Collected: 17-NOV-95  
 D-1  
 Date Received : 17-NOV-95  
 Sample Matrix: SOIL  
 Date Reported : 21-NOV-95  
 Condition of Sample: Satisfactory  
 Field Prep: None  
 Number & Type of Containers: 3 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		ID
						PREP	ANALYSIS	
Solids, Total	93.	%	0.10	3	2540B		20-Nov	ST
Total Metals					1	3005/3050		
Arsenic, Total	3.3	mg/kg	0.20	1	6010		20-Nov	20-Nov GF
Barium, Total	19.	mg/kg	2.0	1	6010		20-Nov	20-Nov GF
Cadmium, Total	ND	mg/kg	0.40	1	6010		20-Nov	20-Nov GF
Chromium, Total	37.	mg/kg	0.80	1	6010		20-Nov	20-Nov GF
Lead, Total	5.2	mg/kg	2.0	1	6010		20-Nov	20-Nov GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471		18-Nov	20-Nov DM
Selenium, Total	ND	mg/kg	0.40	1	6010		20-Nov	20-Nov GF
Silver, Total	ND	mg/kg	0.40	1	6010		20-Nov	20-Nov GF
TCLP Extraction					1	1311		20-Nov
Arsenic, TCLP	ND	mg/l	1.0	1	6010		21-Nov	21-Nov GF
Barium, TCLP	ND	mg/l	0.50	1	6010		21-Nov	21-Nov GF
Cadmium, TCLP	ND	mg/l	0.10	1	6010		21-Nov	21-Nov GF
Chromium, TCLP	ND	mg/l	0.20	1	6010		21-Nov	21-Nov GF
Lead, TCLP	ND	mg/l	0.50	1	6010		21-Nov	21-Nov GF
Mercury, TCLP	ND	mg/l	0.005	1	7470/7471		21-Nov	21-Nov DM
Selenium, TCLP	ND	mg/l	0.50	1	6010		21-Nov	21-Nov GF
Silver, TCLP	ND	mg/l	0.10	1	6010		21-Nov	21-Nov GF
Polychlorinated Biphenyls					1	8080		20-Nov 21-Nov DB
Arochlor 1221	ND	ug/kg	250					
Arochlor 1232	ND	ug/kg	250					
Arochlor 1242/PCB 1016	ND	ug/kg	250					
Arochlor 1248	ND	ug/kg	250					
Arochlor 1254	ND	ug/kg	250					
Arochlor 1260	ND	ug/kg	250					
Arochlor 1262	ND	ug/kg	250					
Arochlor 1268	ND	ug/kg	250					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9508905-02  
D-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Polychlorinated Biphenyls continued				1	8080	20-Nov 21-Nov	DE
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	90.0	%					
Decachlorobiphenyl	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: L9508905

Parameter	Value 1	Value 2	RPD	Units
Total Metals	DUPLICATE for sample(s) 01-02			
Mercury, Total	ND	ND	NC	mg/kg
Total Metals	DUPLICATE for sample(s) 01-02			
Arsenic, Total	2.9	2.9	0	mg/kg
Barium, Total	20.	19.	3	mg/kg
Cadmium, Total	ND	ND	NC	mg/kg
Chromium, Total	37.	42.	12	mg/kg
Lead, Total	4.8	5.1	7	mg/kg
Selenium, Total	ND	ND	NC	mg/kg
Silver, Total	ND	ND	NC	mg/kg
TCLP Extraction	DUPLICATE for sample(s) 01-02			
Arsenic, TCLP	ND	ND	NC	mg/l
Barium, TCLP	ND	ND	NC	mg/l
Cadmium, TCLP	ND	ND	NC	mg/l
Chromium, TCLP	ND	ND	NC	mg/l
Lead, TCLP	ND	ND	NC	mg/l
Selenium, TCLP	ND	ND	NC	mg/l
Silver, TCLP	ND	ND	NC	mg/l
TCLP Extraction	DUPLICATE for sample(s) 01-02			
Mercury, TCLP	ND	ND	NC	mg/l

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L9508905

Parameter	% Recovery
Total Metals	SPIKE for sample(s) 01-02
Mercury, Total	95
Total Metals	SPIKE for sample(s) 01-02
Arsenic, Total	69
Barium, Total	94
Cadmium, Total	100
Chromium, Total	61
Lead, Total	94
TCLP Extraction	SPIKE for sample(s) 01-02
Arsenic, TCLP	94
Barium, TCLP	94
Cadmium, TCLP	96
Chromium, TCLP	101
Lead, TCLP	92
Selenium, TCLP	101
Silver, TCLP	90
TCLP Extraction	SPIKE for sample(s) 01-02
Mercury, TCLP	90

ALPHA ANALYTICAL LABS  
ADDENDUM I

---

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. 1986.
3. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 17th Edition. 1989.

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.

# ALPHA

Analytical Laboratories, Inc.

Eight Walkup Drive  
Westborough, MA 01581-1019  
508-898-9220 FAX 508-898-9193

## CHAIN OF CUSTODY RECORD and ANALYSIS REQUEST RECORD

No. \_\_\_\_\_  
Sheet \_\_\_\_\_ of \_\_\_\_\_

Company Name:  
**ERM**

Project Number:  
P.O. Number:

Project Name/Location:  
**Wayland**

Date Received in Lab: **11/17**  
Date Due: **11/21**

Company Address:  
**Portland St Bost**

Phone Number: **617 721 9228**  
FAX No.:

Project Manager:  
**JMCT**

Alpha Job Number: (Lab use only)  
**9508905**

ALPHA Lab # (Lab Use Only)	Sample I.D.	Containers (number/type)	Matrix / Source	Method Preserve. (number of containers)						Solubles - F.F.	Sampling		Analysis Requested
				Unpres.	Ice	Nitric	Sulfuric	HCl	Other		Date	Time	
8905 .1	C-1	3 G	S	3							11/17	9:10	PCB GC/SC + PCRA &
2	D-1	3 G	S	3							↓	↓	TAPE/CRUDE Total metals (TC)
													Composite all three
													Jars prior to
													analysis
													See Tues

Signature:   
Affiliation: **ERM**  
Date: **11/17**  
Time: **9:10**

ADDITIONAL COMMENTS:

NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1			11/17/17	12:45
2			11/17	1:40
3				
4				

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

CERTIFICATE OF ANALYSIS

Client: Laidlaw Environmental Services

Laboratory Job Number: L9509692

Address: 221 Sutton Street

Invoice Number: 79892

North Andover, MA 01845

Date Received: 19-DEC-95

Attn: Dave Danis

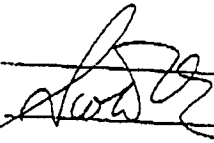
Date Reported: 22-DEC-95

Project Number: 47139

Delivery Method: Alpha

Site: Raytheon

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9509692-01	47139-1	Wayland, MA
L9509692-02	47139-2	Wayland, MA
L9509692-03	47139-3	Wayland, MA
L9509692-04	47139-4	Wayland, MA
L9509692-05	47139-5	Wayland, MA

Authorized by: 

Scott McLean - Laboratory Director

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509692-01  
 47139-1  
 Sample Matrix: SOIL  
 Condition of Sample: Satisfactory  
 Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95  
 Date Received : 19-DEC-95  
 Date Reported : 22-DEC-95  
 Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Solids, Total	85.	%	0.10	3	2540B		
<del>Semi-volatile Organics by GC/MS</del>							
<del>8270 19-Dec 21-Dec IG</del>							
Acenaphthene	ND	ug/kg	280				
Benzidine	ND	ug/kg	2400				
1,2,4-Trichlorobenzene	ND	ug/kg	360				
Hexachlorobenzene	ND	ug/kg	280				
Bis(2-chloroethyl) ether	ND	ug/kg	300				
2-Chloronaphthalene	ND	ug/kg	300				
1,2-Dichlorobenzene	ND	ug/kg	280				
1,3-Dichlorobenzene	ND	ug/kg	320				
1,4-Dichlorobenzene	ND	ug/kg	240				
3,3'-Dichlorobenzidine	ND	ug/kg	640				
2,4-Dinitrotoluene	ND	ug/kg	360				
2,6-Dinitrotoluene	ND	ug/kg	280				
Azobenzene	ND	ug/kg	280				
Fluoranthene	ND	ug/kg	280				
4-Chlorophenyl phenyl ether	ND	ug/kg	300				
4-Bromophenyl phenyl ether	ND	ug/kg	280				
Bis(2-chloroisopropyl) ether	ND	ug/kg	200				
Bis(2-chloroethoxy) methane	ND	ug/kg	220				
Hexachlorobutadiene	ND	ug/kg	800				
Hexachlorocyclopentadiene	ND	ug/kg	760				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	240				
Naphthalene	ND	ug/kg	220				
Nitrobenzene	ND	ug/kg	190				
Nitrosodiphenylamine (NDPA) /DPA	ND	ug/kg	240				
n-Nitrosodi-n-propylamine	ND	ug/kg	260				
Bis(2-ethylhexyl) phthalate	ND	ug/kg	920				
Butyl benzyl phthalate	ND	ug/kg	200				
Di-n-butylphthalate	ND	ug/kg	1200				
Di-n-octylphthalate	ND	ug/kg	240				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo (a) anthracene	ND	ug/kg	320				
Benzo (a) pyrene	ND	ug/kg	380				
Benzo (b) fluoranthene	ND	ug/kg	360				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509692-01  
47139-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES	ID
<b>Semi-volatile Organics by GC/MS continued</b>						
				8270	19-Dec-21-Dec	IG
Pentachlorophenol	ND	ug/kg	700			
Phenol	ND	ug/kg	840			
Cresol, Total	ND	ug/kg	720			
2,4,5-Trichlorophenol	ND	ug/kg	280			
2,6-Dichlorophenol	ND	ug/kg	480			
Benzoic Acid	ND	ug/kg	4000			
Benzyl Alcohol	ND	ug/kg	580			
<b>SURROGATE RECOVERY</b>						
2-Fluorophenol	56.0	‡				
Phenol-d6	61.0	‡				
Nitrobenzene-d5	85.0	‡				
2-Fluorobiphenyl	92.0	‡				
2,4,6-Tribromophenol	144.	‡				
4-Terphenyl-d14	128.	‡				
<b>Polychlorinated Biphenyls</b>						
				8080	19-Dec-21-Dec	DB
Arochlor 1221	ND	ug/kg	250			
Arochlor 1232	ND	ug/kg	250			
Arochlor 1242/PCB 1016	ND	ug/kg	250			
Arochlor 1248	ND	ug/kg	250			
Arochlor 1254	ND	ug/kg	250			
Arochlor 1260	ND	ug/kg	250			
Arochlor 1262	ND	ug/kg	250			
Arochlor 1268	ND	ug/kg	250			
<b>SURROGATE RECOVERY</b>						
2,4,5,6-Tetrachloro-m-xylene	82.0	‡				
Decachlorobiphenyl	105.	‡				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509692-02

Sample Matrix: 47139-2  
SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95

Date Received: 19-DEC-95

Date Reported: 22-DEC-95

Field Prep: None

PARAMETER	RESULT	UNITS	MDL	REP	METHOD	DATES	ID
						PREP ANALYSIS	
Solids, Total	92.	%	0.10	3	2540B		
<del>Semi-volatile Organics by GC/MS</del>							
				1	B270	19-Dec	21-Dec IG
Acenaphthene	ND	ug/kg	140				
Benzidine	ND	ug/kg	1200				
1,2,4-Trichlorobenzene	ND	ug/kg	180				
Hexachlorobenzene	ND	ug/kg	140				
Bis(2-chloroethyl) ether	ND	ug/kg	150				
2-Chloronaphthalene	ND	ug/kg	150				
1,2-Dichlorobenzene	ND	ug/kg	140				
3-Dichlorobenzene	ND	ug/kg	160				
4-Dichlorobenzene	ND	ug/kg	120				
3,3'-Dichlorobenzidine	ND	ug/kg	320				
2,4-Dinitrotoluene	ND	ug/kg	180				
2,6-Dinitrotoluene	ND	ug/kg	140				
Azobenzene	ND	ug/kg	140				
Fluoranthene	ND	ug/kg	140				
4-Chlorophenyl phenyl ether	ND	ug/kg	150				
4-Bromophenyl phenyl ether	ND	ug/kg	140				
Bis(2-chloroisopropyl) ether	ND	ug/kg	100				
Bis(2-chloroethoxy) methane	ND	ug/kg	110				
Hexachlorobutadiene	ND	ug/kg	400				
Hexachlorocyclopentadiene	ND	ug/kg	380				
Hexachloroethane	ND	ug/kg	250				
Isophorone	ND	ug/kg	120				
Naphthalene	ND	ug/kg	110				
Nitrobenzene	ND	ug/kg	95.				
NitrosoDiphenylAmine (NDPA) /DPA	ND	ug/kg	120				
n-Nitrosodi-n-propylamine	ND	ug/kg	130				
Bis(2-ethylhexyl) phthalate	ND	ug/kg	460				
Butyl benzyl phthalate	ND	ug/kg	100				
Di-n-butylphthalate	ND	ug/kg	1300				
Di-n-octylphthalate	ND	ug/kg	120				
Diethyl phthalate	ND	ug/kg	250				
Dimethyl phthalate	ND	ug/kg	250				
Benzo(a)anthracene	ND	ug/kg	160				
Benzo(a)pyrene	ND	ug/kg	190				
Benzo(b)fluoranthene	ND	ug/kg	180				

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



ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

laboratory Sample Number: L9509692-02  
47139-2

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
<del>Semi-volatile Organics by GC/MS continued</del>							
Pentachlorophenol	ND	ug/kg	350	1	8270	19-Dec-21-Dec	IG
Phenol	ND	ug/kg	420				
Cresol, Total	ND	ug/kg	360				
2,4,5-Trichlorophenol	ND	ug/kg	140				
2,6-Dichlorophenol	ND	ug/kg	240				
Benzoic Acid	ND	ug/kg	2000				
Benzyl Alcohol	ND	ug/kg	290				
SURROGATE RECOVERY							
2-Fluorophenol	55.0	†					
Phenol-d6	60.0	†					
Nitrobenzene-d5	77.0	†					
2-Fluorobiphenyl	93.0	†					
2,4,6-Tribromophenol	179.	†					
4-Terphenyl-d14	146.	†					
<del>Polychlorinated Biphenyls</del>							
Arochlor 1221	ND	ug/kg	250	1	8080	19-Dec-21-Dec	DB
Arochlor 1232	ND	ug/kg	250				
Arochlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	89.0	†					
Decachlorobiphenyl	99.0	†					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509692-03

Sample Matrix: 47139-3

SOIL

Date Collected: 19-DEC-95

Date Received : 19-DEC-95

Date Reported : 22-DEC-95

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1 Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	ID	
						PREP ANALYSIS		
Solids, Total	96.	%	0.10	3	2540B			
<del>Semi-volatile Organics by GC/MS</del>							21-Dec	ST
<del>Acenaphthene</del>							19-Dec	IG
Acenaphthene	ND	ug/kg	140		8270			
Benzidine	ND	ug/kg	1200					
1,2,4-Trichlorobenzene	ND	ug/kg	180					
Hexachlorobenzene	ND	ug/kg	140					
Bis(2-chloroethyl) ether	ND	ug/kg	150					
2-Chloronaphthalene	ND	ug/kg	150					
1,2-Dichlorobenzene	ND	ug/kg	140					
1-Dichlorobenzene	ND	ug/kg	160					
2-Dichlorobenzene	ND	ug/kg	120					
3,3'-Dichlorobenzidine	ND	ug/kg	320					
2,4-Dinitrotoluene	ND	ug/kg	180					
2,6-Dinitrotoluene	ND	ug/kg	140					
Azobenzene	ND	ug/kg	140					
Fluoranthene	ND	ug/kg	140					
4-Chlorophenyl phenyl ether	ND	ug/kg	150					
4-Bromophenyl phenyl ether	ND	ug/kg	140					
Bis(2-chloroisopropyl) ether	ND	ug/kg	100					
Bis(2-chloroethoxy) methane	ND	ug/kg	110					
Hexachlorobutadiene	ND	ug/kg	400					
Hexachlorocyclopentadiene	ND	ug/kg	380					
Hexachloroethane	ND	ug/kg	250					
Isophorone	ND	ug/kg	120					
Naphthalene	ND	ug/kg	110					
Nitrobenzene	ND	ug/kg	95.					
Nitrosodiphenylamine (NDPA) /DPA	ND	ug/kg	120					
n-Nitrosodi-n-propylamine	ND	ug/kg	130					
Bis(2-ethylhexyl) phthalate	ND	ug/kg	1000					
Butyl benzyl phthalate	ND	ug/kg	100					
Di-n-butylphthalate	ND	ug/kg	3000					
Di-n-octylphthalate	ND	ug/kg	120					
Diethyl phthalate	ND	ug/kg	250					
Dimethyl phthalate	ND	ug/kg	250					
Benzo(a)anthracene	ND	ug/kg	160					
Benzo(a)pyrene	ND	ug/kg	190					
Benzo(b)fluoranthene	ND	ug/kg	180					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509692-03  
47139-3

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
<del>Semi-volatile Organics by GC/MS continued</del>							
Pentachlorophenol	ND	ug/kg	350			19-Dec 21-Dec	IG
Phenol	ND	ug/kg	420				
Cresol, Total	ND	ug/kg	360				
2,4,5-Trichlorophenol	ND	ug/kg	140				
2,6-Dichlorophenol	ND	ug/kg	240				
Benzoic Acid	ND	ug/kg	2000				
Benzyl Alcohol	ND	ug/kg	290				
SURROGATE RECOVERY							
2-Fluorophenol	57.0	†					
Phenol-d6	64.0	†					
Nitrobenzene-d5	105.	†					
2-Fluorobiphenyl	100.	†					
2,4,6-Tribromophenol	166.	†					
4-Terphenyl-d14	147.	†					
<del>Polychlorinated Biphenyls</del>							
Arochlor 1221	ND	ug/kg	250				
chlor 1232	ND	ug/kg	250				
chlor 1242/PCB 1016	ND	ug/kg	250				
Arochlor 1248	ND	ug/kg	250				
Arochlor 1254	ND	ug/kg	250				
Arochlor 1260	ND	ug/kg	250				
Arochlor 1262	ND	ug/kg	250				
Arochlor 1268	ND	ug/kg	250				
SURROGATE RECOVERY							
2,4,5,6-Tetrachloro-m-xylene	78.0	†					
Decachlorobiphenyl	97.0	†					

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509692-04  
47139-4  
Sample Matrix: SOIL  
Condition of Sample: Satisfactory  
Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95  
Date Received: 19-DEC-95  
Date Reported: 22-DEC-95  
Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	ID
						PREP ANALYSIS	
Solids, Total	94.	%	0.10	3	2540E		
<del>Semi-volatile Organics by GC/MS</del>							
Acenaphthene	ND	ug/kg	140				
Benzidine	ND	ug/kg	1200				
1,2,4-Trichlorobenzene	ND	ug/kg	180				
Hexachlorobenzene	ND	ug/kg	140				
Bis(2-chloroethyl) ether	ND	ug/kg	150				
2-Chloronaphthalene	ND	ug/kg	150				
1,2-Dichlorobenzene	ND	ug/kg	140				
1,3-Dichlorobenzene	ND	ug/kg	160				
1,4-Dichlorobenzene	ND	ug/kg	120				
3,3'-Dichlorobenzidine	ND	ug/kg	320				
2,4-Dinitrotoluene	ND	ug/kg	180				
2,6-Dinitrotoluene	ND	ug/kg	140				
Azobenzene	ND	ug/kg	140				
Fluoranthene	ND	ug/kg	140				
4-Chlorophenyl phenyl ether	ND	ug/kg	150				
4-Bromophenyl phenyl ether	ND	ug/kg	140				
Bis(2-chloroisopropyl) ether	ND	ug/kg	100				
Bis(2-chloroethoxy) methane	ND	ug/kg	110				
Hexachlorobutadiene	ND	ug/kg	400				
Hexachlorocyclopentadiene	ND	ug/kg	380				
Hexachloroethane	ND	ug/kg	250				
Isophorone	ND	ug/kg	120				
Naphthalene	ND	ug/kg	110				
Nitrobenzene	ND	ug/kg	95.				
Nitrosodiphenylamine (NDPA) /DPA	ND	ug/kg	120				
n-Nitrosodi-n-propylamine	ND	ug/kg	130				
Bis(2-ethylhexyl) phthalate	ND	ug/kg	700				
Butyl benzyl phthalate	ND	ug/kg	100				
Di-n-butylphthalate	ND	ug/kg	1400				
Di-n-octylphthalate	ND	ug/kg	120				
Diethyl phthalate	ND	ug/kg	250				
Dimethyl phthalate	ND	ug/kg	250				
Benzo(a) anthracene	ND	ug/kg	160				
Benzo(a) pyrene	ND	ug/kg	190				
Benzo(b) fluoranthene	ND	ug/kg	180				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509692-04  
47139-4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES PREP ANALYSIS	ID
<del>Semi-volatile Organics by GC/MS continued</del>						
Pentachlorophenol	ND	ug/kg	350	8270	19-Dec-21-Dec	IG
Phenol	ND	ug/kg	420			
Cresol, Total	ND	ug/kg	360			
2,4,5-Trichlorophenol	ND	ug/kg	140			
2,6-Dichlorophenol	ND	ug/kg	240			
Benzoic Acid	ND	ug/kg	2000			
Benzyl Alcohol	ND	ug/kg	290			
SURROGATE RECOVERY						
2-Fluorophenol	38.0	†				
Phenol-d6	45.0	†				
Nitrobenzene-d5	67.0	†				
2-Fluorobiphenyl	82.0	†				
2,4,6-Tribromophenol	164.	†				
4-Terphenyl-d14	142.	†				
<del>Polychlorinated Biphenyls</del>						
Arochlor 1221	ND	ug/kg	250	8080	19-Dec-21-Dec	DB
Arochlor 1232	ND	ug/kg	250			
chlor 1242/PCB 1016	ND	ug/kg	250			
chlor 1248	ND	ug/kg	250			
Arochlor 1254	ND	ug/kg	250			
Arochlor 1260	ND	ug/kg	250			
Arochlor 1262	ND	ug/kg	250			
Arochlor 1268	ND	ug/kg	250			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	71.0	†				
Decachlorobiphenyl	92.0	†				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509692-05  
47139-5  
Sample Matrix: SOIL  
Condition of Sample: Satisfactory  
Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95  
Date Received: 19-DEC-95  
Date Reported: 22-DEC-95  
Field Prep: None

PARAMETER	RESULT	UNITS	SDL	REP	METHOD	DATES PREP ANALYSIS	ID
Solids, Total	94.	%	0.10	3	2540B	21-Dec	ST
<del>Semi-volatile Organics by GC/MS</del>							
Acenaphthene	ND	ug/kg	280			19-Dec	IG
Benzidine	ND	ug/kg	2400				
1,2,4-Trichlorobenzene	ND	ug/kg	360				
Hexachlorobenzene	ND	ug/kg	280				
Bis(2-chloroethyl) ether	ND	ug/kg	300				
2-Chloronaphthalene	ND	ug/kg	300				
1,2-Dichlorobenzene	ND	ug/kg	280				
1,3-Dichlorobenzene	ND	ug/kg	320				
1,4-Dichlorobenzene	ND	ug/kg	240				
2,4-Dinitrotoluene	ND	ug/kg	640				
2,6-Dinitrotoluene	ND	ug/kg	360				
Azobenzene	ND	ug/kg	280				
Fluoranthene	ND	ug/kg	280				
4-Chlorophenyl phenyl ether	ND	ug/kg	280				
4-Bromophenyl phenyl ether	ND	ug/kg	300				
Bis(2-chloroisopropyl) ether	ND	ug/kg	280				
Bis(2-chloroethoxy) methane	ND	ug/kg	200				
Hexachlorobutadiene	ND	ug/kg	220				
Hexachlorocyclopentadiene	ND	ug/kg	800				
Hexachloroethane	ND	ug/kg	760				
Isophorone	ND	ug/kg	500				
Naphthalene	ND	ug/kg	240				
Nitrobenzene	ND	ug/kg	220				
Nitrosodiphenylamine (NDPA) /DPA	ND	ug/kg	190				
n-Nitrosodi-n-propylamine	ND	ug/kg	240				
Bis(2-ethylhexyl) phthalate	ND	ug/kg	260				
Butyl benzyl phthalate	ND	ug/kg	920				
Di-n-butylphthalate	ND	ug/kg	200				
Di-n-octylphthalate	ND	ug/kg	1800				
Diethyl phthalate	ND	ug/kg	240				
Dimethyl phthalate	ND	ug/kg	500				
Benzo(a)anthracene	ND	ug/kg	500				
Benzo(a)pyrene	ND	ug/kg	320				
Benzo(b)fluoranthene	ND	ug/kg	380				
	ND	ug/kg	360				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509692-05  
47139-5

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES PREP ANALYSIS	ID
<del>Semi-volatile Organics by GC/MS continued</del>						
Pentachlorophenol	ND	ug/kg	700	8270	19-Dec-21-Dec	IG
Phenol	ND	ug/kg	840			
Cresol, Total	ND	ug/kg	720			
2,4,5-Trichlorophenol	ND	ug/kg	280			
2,6-Dichlorophenol	ND	ug/kg	480			
Benzoic Acid	ND	ug/kg	4000			
Benzyl Alcohol	ND	ug/kg	580			
SURROGATE RECOVERY						
2-Fluorophenol	57.0	%				
Phenol-d6	67.0	%				
Nitrobenzene-d5	83.0	%				
2-Fluorobiphenyl	106.	%				
2,4,6-Tribromophenol	160.	%				
4-Terphenyl-d14	110.	%				
<del>Polychlorinated Biphenyls</del>						
Arochlor 1221	ND	ug/kg	250	8048	19-Dec-21-Dec	DB
Arochlor 1232	ND	ug/kg	250			
Arochlor 1242/PCE 1016	ND	ug/kg	250			
Arochlor 1248	ND	ug/kg	250			
Arochlor 1254	ND	ug/kg	250			
Arochlor 1260	ND	ug/kg	250			
Arochlor 1262	ND	ug/kg	250			
Arochlor 1268	ND	ug/kg	250			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	71.0	%				
Decachlorobiphenyl	91.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Job Number: L9509692

Parameter	MS %	MSD %	RPD
-----------	------	-------	-----

~~Semi-volatile Organic By GC/MS MS/MSD for sample(s) 01-05~~

p-Chloro-m-cresol	68	60	13
2-Chlorophenol	57	38	40
4-Nitrophenol	69	49	34
Pentachlorophenol	59	61	3
Phenol	57	33	53
Acenaphthene	82	74	10
1,2,4-Trichlorobenzene	80	58	32
1,4-Dichlorobenzene	86	55	44
2,4-Dinitrotoluene	88	84	5
N-Nitrosodipropylamine	83	60	32
Pyrene	92	90	2
SURROGATE RECOVERY			
2-Fluorophenol	50	36	33
Phenol-d6	55	32	53
Nitrobenzene-d5	83	57	37
2-Fluorobiphenyl	78	65	18
2,4,6-Tribromophenol	95	100	5
4-Terphenyl-d14	88	88	0

~~Insecticide Spike Recovery MS/MSD for sample(s) 01-05~~

Lindane	80	82	2
Heptachlor	98	100	2
Aldrin	103	105	2
Endrin	121	120	1
Dieldrin	95	95	0
4,4'-DDT	115	114	1
SURROGATE RECOVERY			
2,4,5,6-Tetrachloro-m-xylene	86	104	19
Decachlorobiphenyl	73	74	1





**I A**  
An Aquision Company

149 Rangeway Road  
N. Billerica, Massachusetts 01062  
508 / 667-1400  
Fax 508 / 667-7871

# CHAIN OF C STUDY RECORD

**REGULATORY CLASSIFICATION - PLEASE SPECIFY**

NPDES  DRINKING WATER  RCRA  MCP  OTHER

**REQUIRED**

CUST. P.O. # \_\_\_\_\_  
IEA QUOTE # \_\_\_\_\_

**TURN AROUND**

15 BUSINESS DAY  
 10 BUSINESS DAY  
 RUSH (2 DAY)  
 OTHER

COMPANY: Wendell CONTACT PERSON: Scott Kendall PROJECT I.D.: 47139 PHONE #: 508-667-1400 FAX #: 508-667-7871

ADDRESS: 12119 Rangeway Rd

DATE	TIME	SAMPLE I.D.	MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS										(COMMENTS)			
							1	2	3	4	5	6	7	8	9	10		11	12	
12/19	2:00pm	47139-1	S	P	1	None														Fax All Results to FAX Time and Location 508-667-2001
		47139-2	S	P	1															DU-01
		47139-3	S	P	1															
		47139-4	S	P	1															
		47139-5	S	P	1															

SAMPLED BY: Scott Kendall  
(PRINT NAME)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY (SIGNATURE)	DATE / TIME
<u>Scott Kendall</u>	12/19/95 2:20	<u>Scott Kendall</u>	12/19 2:30
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE / TIME
<u>Scott Kendall</u>	12/19 2:30	<u>Wendell</u>	12/19 2:30

**IEA USE ONLY**

FIELD REMARKS: Continuation for DU-01 W. of Elog 2.



An Aquarion Company

2.13

Boiler Room

Sumps

Analysis Report: EPA Method 8080A  
Aroclors

Client:	Laidlaw Environmental	IEA ID:	L114-017-02
Project:	45127	Sample:	2.13-1
Report Date:	11/28/95	Type:	Soil
Collected:	11/16/95	Container:	Glass
Received:	11/17/95		
Extracted:	11/20/95		
Analyzed:	11/21/95		
By:	GAM	Dilution Factor:	9.3

Number	Compound	PQL ug/kg (dry)	Result ug/kg (dry)
1	Aroclor 1016	530	BQL
2	Aroclor 1221	530	BQL
3	Aroclor 1232	530	BQL
4	Aroclor 1242	530	BQL
5	Aroclor 1248	530	BQL
6	Aroclor 1254	530	BQL
7	Aroclor 1260	530	3,200

## Surrogate Standard Recovery:

Tetrachloro-meta-xylene

D

## Comments:

BQL = Below Quantitation Limit.

PQL = Practical Quantitation Limit.

Quantitation limit elevated due to extract dilution prior to analysis.

Extract diluted due to the presence of non-target compounds.

D = Diluted below calibration.

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive  
Westborough, Massachusetts 01581-1019  
(508) 898-9220

Stock Pile  
Chaiad ~~01201~~

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

DW-05  
AND  
DW-01

CERTIFICATE OF ANALYSIS

Client: Laidlaw Environmental Services

Laboratory Job Number: L9509693

Address: 221 Sutton Street

Invoice Number: 79983

North Andover, MA 01845

Date Received: 19-DEC-95

Attn: Dave Danis

Date Reported: 26-DEC-95

Project Number:

Delivery Method: Alpha

Site: Raytheon

ALPHA SAMPLE NUMBER

CLIENT IDENTIFICATION

SAMPLE LOCATION

L9509693-01

47133-06 DW-05

Wayland, MA

L9509693-02

47133-07 DW-05

Wayland, MA

L9509693-03

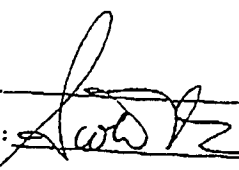
47139-6 PILE #1 DW-01

Wayland, MA

L9509693-04

47139-7 PILE #2 DW-01

Wayland, MA

Authorized by: 

Scott McLean - Laboratory Director

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509693-01  
 47133-06

Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95

Date Received : 19-DEC-95

Date Reported : 26-DEC-95

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		ID
						PREP	ANALYSIS	
Solids, Total	93.	%	0.10	3	2540B		26-Dec	ST
Hydrocarbons, Total	120	mg/l	0.50	1	418.1		26-Dec	ST
<del>Total Metals</del>				1	<del>3005/3050</del>			
Arsenic, Total	6.9	mg/kg	0.20	1	6010		19-Dec	22-Dec GF
Barium, Total	24.	mg/kg	2.0	1	6010		19-Dec	22-Dec GF
Cadmium, Total	23.	mg/kg	0.40	1	6010		19-Dec	22-Dec GF
Chromium, Total	260	mg/kg	0.80	1	6010		19-Dec	22-Dec GF
Lead, Total	260	mg/kg	2.0	1	6010		19-Dec	22-Dec GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471		21-Dec	21-Dec DM
Selenium, Total	ND	mg/kg	0.40	1	6010		19-Dec	22-Dec GF
Silver, Total	1.1	mg/kg	0.40	1	6010		19-Dec	22-Dec GF

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-01  
 47133-06

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Volatile Organics by GC/MS							
Methylene chloride	ND	ug/kg	25.	1	8260	22-Dec 22-Dec	DB
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Dibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethane	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5.0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Carbon Disulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl Acetate	ND	ug/kg	50.				
4-Methyl-2-pentanone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methacrylate	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-01  
 47133-06

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE	PREP ANALYSIS
<i>Volatiles Organics by GC/MS continued</i>							
Acrylonitrile	ND	ug/kg	50.	1	8260	22-Dec	22-Dec D:
Bromochloromethane	ND	ug/kg	25.				
2,2-Dichloropropane	ND	ug/kg	25.				
1,2-Dibromoethane	ND	ug/kg	25.				
1,3-Dichloropropane	ND	ug/kg	25.				
1,1,1,2-Tetrachloroethane	ND	ug/kg	25.				
Bromobenzene	ND	ug/kg	25.				
n-Butylbenzene	ND	ug/kg	25.				
sec-Butylbenzene	ND	ug/kg	25.				
tert-Butylbenzene	ND	ug/kg	25.				
o-Chlorotoluene	ND	ug/kg	25.				
p-Chlorotoluene	ND	ug/kg	25.				
1,2-Dibromo-3-chloropropane	ND	ug/kg	25.				
Hexachlorobutadiene	ND	ug/kg	25.				
Isopropylbenzene	ND	ug/kg	25.				
p-Isopropyltoluene	ND	ug/kg	25.				
Naphthalene	ND	ug/kg	25.				
n-Propylbenzene	ND	ug/kg	25.				
1,2,3-Trichlorobenzene	ND	ug/kg	25.				
1,2,4-Trichlorobenzene	ND	ug/kg	25.				
1,3,5-Trimethylbenzene	ND	ug/kg	25.				
1,2,4-Trimethylbenzene	ND	ug/kg	25.				
trans-1,4-Dichloro-2-butene	ND	ug/kg	25.				
Ethyl ether	ND	ug/kg	130				
SURROGATE RECOVERY							
Toluene-d8	104.	‡					
4-Bromofluorobenzene	106.	‡					
Dibromofluoromethane	109.	‡					

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-01  
 47133-06

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES	II
Semi-volatile Organics by GC/MS						
Acenaphthene	ND	ug/kg	260	1 8270	21-Dec-22-Dec	IG
Benzidine	ND	ug/kg	2200			
1,2,4-Trichlorobenzene	ND	ug/kg	330			
Hexachlorobenzene	ND	ug/kg	260			
Bis(2-chloroethyl) ether	ND	ug/kg	280			
2-Chloronaphthalene	ND	ug/kg	280			
1,2-Dichlorobenzene	ND	ug/kg	260			
1,3-Dichlorobenzene	ND	ug/kg	300			
1,4-Dichlorobenzene	ND	ug/kg	220			
3,3'-Dichlorobenzidine	ND	ug/kg	600			
2,4-Dinitrotoluene	ND	ug/kg	330			
2,6-Dinitrotoluene	ND	ug/kg	260			
Azobenzene	ND	ug/kg	260			
Fluoranthene	ND	ug/kg	260			
4-Chlorophenyl phenyl ether	ND	ug/kg	280			
4-Bromophenyl phenyl ether	ND	ug/kg	260			
Bis(2-chloroisopropyl) ether	ND	ug/kg	190			
Bis(2-chloroethoxy) methane	ND	ug/kg	200			
Hexachlorobutadiene	ND	ug/kg	740			
Hexachlorocyclopentadiene	ND	ug/kg	710			
Hexachloroethane	ND	ug/kg	470			
Isophorone	ND	ug/kg	220			
Naphthalene	ND	ug/kg	200			
Nitrobenzene	ND	ug/kg	180			
NitrosoDiphenylAmine (NDPA) /DPA	ND	ug/kg	220			
n-Nitrosodi-n-propylamine	ND	ug/kg	240			
Bis(2-ethylhexyl) phthalate	ND	ug/kg	860			
Butyl benzyl phthalate	ND	ug/kg	190			
Di-n-butylphthalate	ND	ug/kg	710			
Di-n-octylphthalate	ND	ug/kg	220			
Diethyl phthalate	ND	ug/kg	470			
Dimethyl phthalate	ND	ug/kg	470			
Benzo (a) anthracene	ND	ug/kg	300			
Benzo (a) pyrene	ND	ug/kg	350			
Benzo (b) fluoranthene	ND	ug/kg	330			
Benzo (k) fluoranthene	ND	ug/kg	330			
Chrysene	ND	ug/kg	300			
Acenaphthylene	ND	ug/kg	240			
Anthracene	ND	ug/kg	220			
Benzo (ghi) perylene	ND	ug/kg	470			
Fluorene	ND	ug/kg	260			
Phenanthrene	ND	ug/kg	240			
Dibenzo (a, h) anthracene	ND	ug/kg	450			
Indeno (1, 2, 3-cd) pyrene	ND	ug/kg	450			
Pyrene	ND	ug/kg	260			
Aniline	ND	ug/kg	930			
4-Chloroaniline	ND	ug/kg	370			
1-Methylnaphthalene	ND	ug/kg	650			

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-01  
 47133-06

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Semi-volatile Organics by GC/MS continued						
2-Nitroaniline	ND	ug/kg	300		8270	21-Dec-22-Dec
3-Nitroaniline	ND	ug/kg	560			
4-Nitroaniline	ND	ug/kg	540			
Dibenzofuran	ND	ug/kg	190			
a,a-Dimethylphenethylamine	ND	ug/kg	4300			
Hexachloropropene	ND	ug/kg	1900			
Nitrosodi-n-butylamine	ND	ug/kg	450			
2-Methylnaphthalene	ND	ug/kg	170			
Tetrachlorobenzene	ND	ug/kg	1200			
Pentachlorobenzene	ND	ug/kg	1200			
a-Naphthalamine	ND	ug/kg	1900			
b-Naphthalamine	ND	ug/kg	860			
Acetophenetidide	ND	ug/kg	930			
Dimethoate	ND	ug/kg	1900			
4-Aminobiphenyl	ND	ug/kg	970			
Pentachloronitrobenzene	ND	ug/kg	370			
Isodrin	ND	ug/kg	350			
p-Dimethylaminoazobenzene	ND	ug/kg	670			
Chlorobenzilate	ND	ug/kg	1500			
Bis(2-ethylhexyl)adipate	ND	ug/kg	300			
3-Methylcholanthrene	ND	ug/kg	1900			
Ethylmethanesulfonate	ND	ug/kg	1400			
Acetophenone	ND	ug/kg	450			
Nitrosodipiperidine	ND	ug/kg	1900			
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	2200			
n-Nitrosodimethylamine	ND	ug/kg	3700			
2,4,6-Trichlorophenol	ND	ug/kg	190			
p-Chloro-m-cresol	ND	ug/kg	280			
2-Chlorophenol	ND	ug/kg	300			
2,4-Dichlorophenol	ND	ug/kg	930			
2,4-Dimethylphenol	ND	ug/kg	220			
2-Nitrophenol	ND	ug/kg	300			
4-Nitrophenol	ND	ug/kg	1100			
2,4-Dinitrophenol	ND	ug/kg	1400			
4,6-Dinitro-o-cresol	ND	ug/kg	1600			
Pentachlorophenol	ND	ug/kg	650			
Phenol	ND	ug/kg	780			
Cresol, Total	ND	ug/kg	670			
2,4,5-Trichlorophenol	ND	ug/kg	260			
2,6-Dichlorophenol	ND	ug/kg	450			
Benzoic Acid	ND	ug/kg	3700			
Benzyl Alcohol	ND	ug/kg	540			
SURROGATE RECOVERY						
2-Fluorophenol	85.0	%				
Phenol-d6	92.0	%				
Nitrobenzene-d5	126.	%				

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



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-01  
 47133-06

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
<del>Semi-volatile Organics by GC/MS continued</del>						
2-Fluorobiphenyl	96.0	%		1	8270	21-Dec-22-Dec
2,4,6-Tribromophenol	135.	%				
4-Terphenyl-d14	112.	%				
<del>Polychlorinated Biphenyls</del>						
Arochlor 1221	ND	ug/kg	250	1	8080	21-Dec-22-Dec DS
Arochlor 1232	ND	ug/kg	250			
Arochlor 1242/PCB 1016	ND	ug/kg	250			
Arochlor 1248	ND	ug/kg	250			
Arochlor 1254	ND	ug/kg	250			
Arochlor 1260	2500	ug/kg	250			
Arochlor 1262	ND	ug/kg	250			
Arochlor 1268	ND	ug/kg	250			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	80.0	%				
Decachlorobiphenyl	96.0	%				
<del>Organochlorine Pesticides</del>						
Delta-BHC	ND	ug/kg	50.	1	8080	21-Dec-22-Dec DS
Lindane	ND	ug/kg	50.			
Alpha-BHC	ND	ug/kg	50.			
Beta-BHC	ND	ug/kg	50.			
Heptachlor	ND	ug/kg	50.			
Aldrin	ND	ug/kg	50.			
Heptachlor epoxide	ND	ug/kg	50.			
Endrin	ND	ug/kg	50.			
Endrin aldehyde	ND	ug/kg	50.			
Endrin ketone	ND	ug/kg	50.			
Dieldrin	ND	ug/kg	50.			
1,4'-DDE	ND	ug/kg	50.			
1,4'-DDD	ND	ug/kg	50.			
1,4'-DDT	ND	ug/kg	50.			
Endosulfan I	ND	ug/kg	50.			
Endosulfan II	ND	ug/kg	50.			
Endosulfan sulfate	ND	ug/kg	50.			
Methoxychlor	ND	ug/kg	50.			
Toxaphene	ND	ug/kg	50.			
Chlordane	ND	ug/kg	100			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	80.0	%				
Decachlorobiphenyl	96.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509693-02

Sample Matrix: 47133-07  
 SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95

Date Received: 19-DEC-95

Date Reported: 26-DEC-95

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		ID
						PREP	ANALYSIS	
Solids, Total	94.	%	0.10	3	2540B		26-Dec	ST
Hydrocarbons, Total	ND	mg/l	0.50	1	418.1		26-Dec	ST
<del>Total Metals</del>								
Arsenic, Total	6.0	mg/kg	0.20	1	6010		19-Dec	22-Dec GF
Barium, Total	44.	mg/kg	2.0	1	6010		19-Dec	22-Dec GF
Cadmium, Total	10.	mg/kg	0.40	1	6010		19-Dec	22-Dec GF
Chromium, Total	160	mg/kg	0.80	1	6010		19-Dec	22-Dec GF
Lead, Total	22.	mg/kg	2.0	1	6010		19-Dec	22-Dec GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471		21-Dec	21-Dec DM
Selenium, Total	ND	mg/kg	0.40	1	6010		19-Dec	22-Dec GF
Silver, Total	0.43	mg/kg	0.40	1	6010		19-Dec	22-Dec GF

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-02  
 47133-07

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	PREP ANALYSIS
<i>Volatile Organics by GC/MS</i>							
Methylene chloride	ND	ug/kg	25.		8260	22-Dec-23	Dec 23
1,1-Dichloroethane	ND	ug/kg	7.5				
Chloroform	ND	ug/kg	7.5				
Carbon tetrachloride	ND	ug/kg	5.0				
1,2-Dichloropropane	ND	ug/kg	18.				
Dibromochloromethane	ND	ug/kg	5.0				
1,1,2-Trichloroethane	ND	ug/kg	7.5				
2-Chloroethylvinyl ether	ND	ug/kg	50.				
Tetrachloroethene	ND	ug/kg	7.5				
Chlorobenzene	ND	ug/kg	18.				
Trichlorofluoromethane	ND	ug/kg	25.				
1,2-Dichloroethane	ND	ug/kg	7.5				
1,1,1-Trichloroethane	ND	ug/kg	5.0				
Bromodichloromethane	ND	ug/kg	5.0				
trans-1,3-Dichloropropene	ND	ug/kg	7.5				
cis-1,3-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0				
Benzene	ND	ug/kg	5.0				
Toluene	ND	ug/kg	7.5				
Ethylbenzene	ND	ug/kg	5.0				
Chloromethane	ND	ug/kg	50.				
Bromomethane	ND	ug/kg	10.				
Vinyl chloride	ND	ug/kg	18.				
Chloroethane	ND	ug/kg	10.				
1,1-Dichloroethene	ND	ug/kg	7.5				
trans-1,2-Dichloroethene	ND	ug/kg	7.5				
Trichloroethene	ND	ug/kg	5.0				
1,2-Dichlorobenzene	ND	ug/kg	50.				
1,3-Dichlorobenzene	ND	ug/kg	50.				
1,4-Dichlorobenzene	ND	ug/kg	50.				
Methyl tert butyl ether	ND	ug/kg	50.				
Xylenes	ND	ug/kg	5.0				
cis-1,2-Dichloroethene	ND	ug/kg	5.0				
Dibromomethane	ND	ug/kg	50.				
1,4-Dichlorobutane	ND	ug/kg	50.				
Iodomethane	ND	ug/kg	50.				
1,2,3-Trichloropropane	ND	ug/kg	50.				
Styrene	ND	ug/kg	5.0				
Dichlorodifluoromethane	ND	ug/kg	50.				
Acetone	ND	ug/kg	50.				
Carbon Disulfide	ND	ug/kg	50.				
2-Butanone	ND	ug/kg	23.				
Vinyl Acetate	ND	ug/kg	50.				
4-Methyl-2-pentanone	ND	ug/kg	50.				
2-Hexanone	ND	ug/kg	50.				
Ethyl methacrylate	ND	ug/kg	50.				
Acrolein	ND	ug/kg	130				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-02  
 47133-07

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES
						PREP ANALYSIS
Volatile Organics by GC/MS continued						22-Dec 22-Dec 1
				1	8260	
Acrylonitrile	ND	ug/kg	50.			
Bromochloromethane	ND	ug/kg	25.			
2,2-Dichloropropane	ND	ug/kg	25.			
1,2-Dibromoethane	ND	ug/kg	25.			
1,3-Dichloropropane	ND	ug/kg	25.			
1,1,1,2-Tetrachloroethane	ND	ug/kg	25.			
Bromobenzene	ND	ug/kg	25.			
n-Butylbenzene	ND	ug/kg	25.			
sec-Butylbenzene	ND	ug/kg	25.			
tert-Butylbenzene	ND	ug/kg	25.			
o-Chlorotoluene	ND	ug/kg	25.			
p-Chlorotoluene	ND	ug/kg	25.			
1,2-Dibromo-3-chloropropane	ND	ug/kg	25.			
Hexachlorobutadiene	ND	ug/kg	25.			
Isopropylbenzene	ND	ug/kg	25.			
p-Isopropyltoluene	ND	ug/kg	25.			
Naphthalene	ND	ug/kg	25.			
n-Propylbenzene	ND	ug/kg	25.			
1,2,3-Trichlorobenzene	ND	ug/kg	25.			
1,2,4-Trichlorobenzene	ND	ug/kg	25.			
1,3,5-Trimethylbenzene	ND	ug/kg	25.			
1,2,4-Trimethylbenzene	ND	ug/kg	25.			
trans-1,4-Dichloro-2-butene	ND	ug/kg	25.			
Ethyl ether	ND	ug/kg	130			
SURROGATE RECOVERY						
Toluene-d8	103.	%				
4-Bromofluorobenzene	106.	%				
Dibromofluoromethane	108.	%				

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

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-02  
47133-07

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	I
Semi-volatile Organics by GC/MS							
				1	8270	21-Dec-22-Dec	I
Acenaphthene	ND	ug/kg	280				
Benzidine	ND	ug/kg	2400				
1,2,4-Trichlorobenzene	ND	ug/kg	360				
Hexachlorobenzene	ND	ug/kg	280				
Bis(2-chloroethyl) ether	ND	ug/kg	300				
2-Chloronaphthalene	ND	ug/kg	300				
1,2-Dichlorobenzene	ND	ug/kg	280				
1,3-Dichlorobenzene	ND	ug/kg	320				
1,4-Dichlorobenzene	ND	ug/kg	240				
3,3'-Dichlorobenzidine	ND	ug/kg	640				
2,4-Dinitrotoluene	ND	ug/kg	360				
2,6-Dinitrotoluene	ND	ug/kg	280				
Azobenzene	ND	ug/kg	280				
Fluoranthene	ND	ug/kg	280				
4-Chlorophenyl phenyl ether	ND	ug/kg	300				
4-Bromophenyl phenyl ether	ND	ug/kg	280				
Bis(2-chloroisopropyl) ether	ND	ug/kg	200				
Bis(2-chloroethoxy) methane	ND	ug/kg	220				
Hexachlorobutadiene	ND	ug/kg	800				
Hexachlorocyclopentadiene	ND	ug/kg	760				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	240				
Naphtiazlene	ND	ug/kg	220				
Nitrobenzene	ND	ug/kg	190				
NitrosoDiphenylAmine (NDPA) /DPA	ND	ug/kg	240				
n-Nitrosodi-n-propylamine	ND	ug/kg	260				
Bis(2-ethylhexyl) phthalate	ND	ug/kg	920				
Butyl benzyl phthalate	ND	ug/kg	200				
Di-n-butylphthalate	ND	ug/kg	740				
Di-n-octylphthalate	ND	ug/kg	240				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo (a) anthracene	ND	ug/kg	320				
Benzo (a) pyrene	ND	ug/kg	380				
Benzo (b) fluoranthene	ND	ug/kg	360				
Benzo (k) fluoranthene	ND	ug/kg	360				
Chrysene	ND	ug/kg	320				
Acenaphthylene	ND	ug/kg	260				
Anthracene	ND	ug/kg	240				
Benzo (ghi) perylene	ND	ug/kg	500				
Fluorene	ND	ug/kg	280				
Phenanthrene	ND	ug/kg	260				
Dibenzo (a, h) anthracene	ND	ug/kg	480				
Indeno (1, 2, 3-cd) pyrene	ND	ug/kg	480				
Pyrene	ND	ug/kg	280				
Aniline	ND	ug/kg	1000				
4-Chloroaniline	ND	ug/kg	400				
1-Methylnaphthalene	ND	ug/kg	700				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-02  
 47133-07

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES
PREP ANALYSIS						
<i>Semi-volatile organics by GC/MS continued</i>						
2-Nitroaniline	ND	ug/kg	320	1	8270	21-Dec-22-Dec 10
3-Nitroaniline	ND	ug/kg	600			
4-Nitroaniline	ND	ug/kg	580			
Dibenzofuran	ND	ug/kg	200			
a,a-Dimethylphenethylamine	ND	ug/kg	4600			
Hexachloropropene	ND	ug/kg	2000			
Nitrosodi-n-butylamine	ND	ug/kg	480			
2-Methylnaphthalene	ND	ug/kg	180			
Tetrachlorobenzene	ND	ug/kg	1200			
Pentachlorobenzene	ND	ug/kg	1300			
a-Naphthalamine	ND	ug/kg	2000			
b-Naphthalamine	ND	ug/kg	920			
Acetophenetidide	ND	ug/kg	1000			
Dimethoate	ND	ug/kg	2000			
4-Aminobiphenyl	ND	ug/kg	1000			
Pentachloronitrobenzene	ND	ug/kg	400			
Isodrin	ND	ug/kg	380			
p-Dimethylaminoazobenzene	ND	ug/kg	720			
Chlorobenzilate	ND	ug/kg	1600			
Bis(2-ethylhexyl)adipate	ND	ug/kg	320			
3-Methylcholanthrene	ND	ug/kg	2000			
Ethylmethanesulfonate	ND	ug/kg	1500			
Acetophenone	ND	ug/kg	480			
Nitrosodipiperidine	ND	ug/kg	2000			
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	2400			
n-Nitrosodimethylamine	ND	ug/kg	4000			
2,4,6-Trichlorophenol	ND	ug/kg	200			
p-Chloro-m-cresol	ND	ug/kg	300			
2-Chlorophenol	ND	ug/kg	320			
2,4-Dichlorophenol	ND	ug/kg	1000			
2,4-Dimethylphenol	ND	ug/kg	240			
2-Nitrophenol	ND	ug/kg	320			
4-Nitrophenol	ND	ug/kg	1200			
2,4-Dinitrophenol	ND	ug/kg	1500			
4,6-Dinitro-o-cresol	ND	ug/kg	1700			
Pentachlorophenol	ND	ug/kg	700			
Phenol	ND	ug/kg	840			
Cresol, Total	ND	ug/kg	720			
2,4,5-Trichlorophenol	ND	ug/kg	280			
2,6-Dichlorophenol	ND	ug/kg	480			
Benzoic Acid	ND	ug/kg	4000			
Benzyl Alcohol	ND	ug/kg	580			
<b>SURROGATE RECOVERY</b>						
2-Fluorophenol	35.0	%				
Phenol-d6	41.0	%				
Nitrobenzene-d5	88.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-02  
 47133-07

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES	II
Semi-volatile Organics by GC/MS continued						
2-Nitroaniline	ND	ug/kg	320	1 8270	21-Dec-22-Dec	IG
3-Nitroaniline	ND	ug/kg	600			
4-Nitroaniline	ND	ug/kg	580			
Dibenzofuran	ND	ug/kg	200			
a, a-Dimethylphenethylamine	ND	ug/kg	4600			
Hexachloropropene	ND	ug/kg	2000			
Nitrosodi-n-butylamine	ND	ug/kg	480			
2-Methylnaphthalene	ND	ug/kg	180			
Tetrachlorobenzene	ND	ug/kg	1200			
Pentachlorobenzene	ND	ug/kg	1300			
a-Naphthalamine	ND	ug/kg	2000			
b-Naphthalamine	ND	ug/kg	920			
Acetophenetidide	ND	ug/kg	1000			
Dimethoate	ND	ug/kg	2000			
4-Aminobiphenyl	ND	ug/kg	1000			
Pentachloronitrobenzene	ND	ug/kg	400			
Isodrin	ND	ug/kg	380			
p-Dimethylaminoazobenzene	ND	ug/kg	720			
Chlorobenzilate	ND	ug/kg	1600			
Bis(2-ethylhexyl) adipate	ND	ug/kg	320			
3-Methylcholanthrene	ND	ug/kg	2000			
Ethylmethanesulfonate	ND	ug/kg	1500			
Acetophenone	ND	ug/kg	480			
Nitrosodipiperidine	ND	ug/kg	2000			
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	2400			
n-Nitrosodimethylamine	ND	ug/kg	4000			
2,4,6-Trichlorophenol	ND	ug/kg	200			
p-Chloro-m-cresol	ND	ug/kg	300			
2-Chlorophenol	ND	ug/kg	320			
2,4-Dichlorophenol	ND	ug/kg	1000			
2,4-Dimethylphenol	ND	ug/kg	240			
2-Nitrophenol	ND	ug/kg	320			
4-Nitrophenol	ND	ug/kg	1200			
2,4-Dinitrophenol	ND	ug/kg	1500			
4,6-Dinitro-o-cresol	ND	ug/kg	1700			
Pentachlorophenol	ND	ug/kg	700			
Phenol	ND	ug/kg	840			
Cresol, Total	ND	ug/kg	720			
2,4,5-Trichlorophenol	ND	ug/kg	280			
2,6-Dichlorophenol	ND	ug/kg	480			
Benzoic Acid	ND	ug/kg	4000			
Benzyl Alcohol	ND	ug/kg	580			
SURROGATE RECOVERY						
2-Fluorophenol	35.0	%				
Phenol-d6	41.0	%				
Nitrobenzene-d5	88.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509693-03

Sample Matrix: 47139-6 PILE #1  
 SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1 Plastic

Date Collected: 19-DEC-95

Date Received : 19-DEC-95

Date Reported : 26-DEC-95

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		ID
						PREP	ANALYSIS	
Solids, Total	89.	%	0.10	3	2540B			
pH	7.4	SU		1	9040			26-Dec ST
Hydrocarbons, Total	930	mg/l	0.50	1	418.1			19-Dec ST
Flash Point	>200	F	60	1	1010		26-Dec	26-Dec ST
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3			21-Dec ST
Sulfide, Reactive	ND	mg/kg	0.20	1	7.3			21-Dec ST
<del>TCLP Extraction</del>								
Arsenic, TCLP	ND	mg/l	1.0	1	6010			22-Dec
Barium, TCLP	ND	mg/l	0.50	1	6010		26-Dec	26-Dec GF
Cadmium, TCLP	ND	mg/l	0.10	1	6010		26-Dec	26-Dec GF
Chromium, TCLP	ND	mg/l	0.20	1	6010		26-Dec	26-Dec GF
Lead, TCLP	ND	mg/l	0.50	1	6010		26-Dec	26-Dec GF
Mercury, TCLP	ND	mg/l	0.005	1	7470/7471		22-Dec	26-Dec GF
Selenium, TCLP	ND	mg/l	0.50	1	6010		26-Dec	26-Dec DM
Silver, TCLP	ND	mg/l	0.10	1	6010		26-Dec	26-Dec GF
				1	6010		26-Dec	26-Dec GF

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



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-03  
 47139-6 PILE #1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES
<del>Semi-volatile Organics by GC/MS</del>						
Acenaphthene	ND	ug/kg	270	1	8270	21-Dec-23-Dec
Benzidine	ND	ug/kg	2300			
1,2,4-Trichlorobenzene	ND	ug/kg	350			
Hexachlorobenzene	ND	ug/kg	270			
Bis(2-chloroethyl) ether	ND	ug/kg	290			
2-Chloronaphthalene	ND	ug/kg	290			
1,2-Dichlorobenzene	ND	ug/kg	270			
1,3-Dichlorobenzene	ND	ug/kg	310			
1,4-Dichlorobenzene	ND	ug/kg	230			
3,3'-Dichlorobenzidine	ND	ug/kg	610			
2,4-Dinitrotoluene	ND	ug/kg	350			
2,6-Dinitrotoluene	ND	ug/kg	270			
Azobenzene	ND	ug/kg	270			
Fluoranthene	ND	ug/kg	270			
4-Chlorophenyl phenyl ether	ND	ug/kg	290			
4-Bromophenyl phenyl ether	ND	ug/kg	270			
Bis(2-chloroisopropyl) ether	ND	ug/kg	190			
Bis(2-chloroethoxy) methane	ND	ug/kg	210			
Hexachlorobutadiene	ND	ug/kg	770			
Hexachlorocyclopentadiene	ND	ug/kg	730			
Hexachloroethane	ND	ug/kg	480			
Isophorone	ND	ug/kg	230			
Naphthalene	ND	ug/kg	210			
Nitrobenzene	ND	ug/kg	180			
NitrosoDiphenylamine (NDPA) /DPA	ND	ug/kg	230			
n-Nitrosodi-n-propylamine	ND	ug/kg	250			
Bis(2-ethylhexyl) phthalate	ND	ug/kg	880			
Butyl benzyl phthalate	ND	ug/kg	190			
Di-n-butylphthalate	ND	ug/kg	690			
Di-n-octylphthalate	ND	ug/kg	230			
Diethyl phthalate	ND	ug/kg	480			
Dimethyl phthalate	ND	ug/kg	480			
Benzo (a) anthracene	ND	ug/kg	310			
Benzo (a) pyrene	ND	ug/kg	360			
Benzo (b) fluoranthene	ND	ug/kg	350			
Benzo (k) fluoranthene	ND	ug/kg	350			
Chrysene	ND	ug/kg	310			
Acenaphthylene	ND	ug/kg	250			
Anthracene	ND	ug/kg	230			
Benzo (ghi) perylene	ND	ug/kg	480			
Fluorene	ND	ug/kg	270			
Phenanthrene	ND	ug/kg	250			
Dibenzo (a, h) anthracene	ND	ug/kg	460			
Indeno (1, 2, 3-cd) pyrene	ND	ug/kg	460			
Pyrene	ND	ug/kg	270			
Aniline	ND	ug/kg	960			
4-Chloroaniline	ND	ug/kg	380			
1-Methylnaphthalene	ND	ug/kg	670			

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-03  
 47139-6 PILE #1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES
<del>Semi-volatile Organics by GC/MS continued</del>						
2-Nitroaniline	ND	ug/kg	310	1	8270	21-Dec-23-Dec
3-Nitroaniline	ND	ug/kg	580			
4-Nitroaniline	ND	ug/kg	560			
Dibenzofuran	ND	ug/kg	190			
a,a-Dimethylphenethylamine	ND	ug/kg	4400			
Hexachloropropene	ND	ug/kg	1900			
Nitrosodi-n-butylamine	ND	ug/kg	460			
2-Methylnaphthalene	ND	ug/kg	170			
Tetrachlorobenzene	ND	ug/kg	1200			
Pentachlorobenzene	ND	ug/kg	1200			
a-Naphthalamine	ND	ug/kg	1900			
b-Naphthalamine	ND	ug/kg	880			
Acetophenetidide	ND	ug/kg	960			
Dimethoate	ND	ug/kg	1900			
4-Aminobiphenyl	ND	ug/kg	1000			
Pentachloronitrobenzene	ND	ug/kg	380			
Isodrin	ND	ug/kg	360			
p-Dimethylaminoazobenzene	ND	ug/kg	690			
Chlorobenzilate	ND	ug/kg	1500			
Bis(2-ethylhexyl) adipate	ND	ug/kg	310			
3-Methylcholanthrene	ND	ug/kg	1900			
Ethylmethanesulfonate	ND	ug/kg	1400			
Acetophenone	ND	ug/kg	460			
Nitrosodipiperidine	ND	ug/kg	1900			
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	2300			
n-Nitrosodimethylamine	ND	ug/kg	3800			
2,4,6-Trichlorophenol	ND	ug/kg	190			
p-Chloro-m-cresol	ND	ug/kg	290			
2-Chlorophenol	ND	ug/kg	310			
2,4-Dichlorophenol	ND	ug/kg	960			
2,4-Dimethylphenol	ND	ug/kg	230			
2-Nitrophenol	ND	ug/kg	310			
4-Nitrophenol	ND	ug/kg	1200			
2,4-Dinitrophenol	ND	ug/kg	1400			
4,6-Dinitro-o-cresol	ND	ug/kg	1700			
Pentachlorophenol	ND	ug/kg	670			
Phenol	ND	ug/kg	810			
Cresol, Total	ND	ug/kg	690			
2,4,5-Trichlorophenol	ND	ug/kg	270			
2,6-Dichlorophenol	ND	ug/kg	460			
Benzoic Acid	ND	ug/kg	3800			
Benzyl Alcohol	ND	ug/kg	560			
SURROGATE RECOVERY						
2-Fluorophenol	45.0	%				
Phenol-d6	50.0	%				
Nitrobenzene-d5	90.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-03  
 47139-6 PILE #1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
<u>Semi-volatile Organics by GC/MS continued</u>						
2-Fluorobiphenyl	93.0	%		1	8270	21-Dec 23-Dec
2,4,6-Tribromophenol	87.0	%				
4-Terphenyl-d14	100.	%				
<u>Polychlorinated Biphenyls</u>						
Arochlor 1221	ND	ug/kg	250	1	8080	21-Dec 22-Dec
Arochlor 1232	ND	ug/kg	250			
Arochlor 1242/PCB 1016	ND	ug/kg	250			
Arochlor 1248	ND	ug/kg	250			
Arochlor 1254	ND	ug/kg	250			
Arochlor 1260	ND	ug/kg	250			
Arochlor 1262	ND	ug/kg	250			
Arochlor 1268	ND	ug/kg	250			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	70.0	%				
Decachlorobiphenyl	81.0	%				
<u>Organochlorine Pesticides</u>						
Delta-BHC	ND	ug/kg	50.	1	8080	21-Dec 22-Dec D:
Lindane	ND	ug/kg	50.			
Alpha-BHC	ND	ug/kg	50.			
Beta-BHC	ND	ug/kg	50.			
Heptachlor	ND	ug/kg	50.			
Aldrin	ND	ug/kg	50.			
Heptachlor epoxide	ND	ug/kg	50.			
Endrin	ND	ug/kg	50.			
Endrin aldehyde	ND	ug/kg	50.			
Endrin ketone	ND	ug/kg	50.			
Dieldrin	ND	ug/kg	50.			
4,4'-DDE	ND	ug/kg	50.			
4,4'-DDD	ND	ug/kg	50.			
4,4'-DDT	ND	ug/kg	50.			
Endosulfan I	ND	ug/kg	50.			
Endosulfan II	ND	ug/kg	50.			
Endosulfan sulfate	ND	ug/kg	50.			
Methoxychlor	ND	ug/kg	50.			
Toxaphene	ND	ug/kg	50.			
Chlordane	ND	ug/kg	100			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	70.0	%				
Decachlorobiphenyl	81.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA 086 NH 198958-A CT PH-0574 NY 11148 NC 320 SC 88006 RI A65

Laboratory Sample Number: L9509693-04  
 Sample Matrix: 47139-7 PILE #2  
 SOIL

Date Collected: 19-DEC-95  
 Date Received : 19-DEC-95  
 Date Reported : 26-DEC-95

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1 Plastic

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		II
						PREP	ANALYSIS	
Solids, Total	91.	%	0.10	3	2540B			
pH	7.4	SU		1	9040			26-Dec ST
Hydrocarbons, Total	130	mg/l	0.50	1	418.1			19-Dec ST
Flash Point	>200	F	60	1	1010			26-Dec 26-Dec ST
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3			21-Dec ST
Sulfide, Reactive	ND	mg/kg	0.20	1	7.3			21-Dec ST
<del>TCLP Extraction</del>								
Arsenic, TCLP	ND	mg/l	1.0	1	6010			26-Dec 26-Dec GF
Barium, TCLP	ND	mg/l	0.50	1	6010			26-Dec 26-Dec GF
Cadmium, TCLP	ND	mg/l	0.10	1	6010			26-Dec 26-Dec GF
Chromium, TCLP	ND	mg/l	0.20	1	6010			26-Dec 26-Dec GF
Lead, TCLP	ND	mg/l	0.50	1	6010			26-Dec 26-Dec GF
Mercury, TCLP	ND	mg/l	0.005	1	7470/7471			26-Dec 26-Dec GF
Selenium, TCLP	ND	mg/l	0.50	1	6010			22-Dec 22-Dec DM
Silver, TCLP	ND	mg/l	0.10	1	6010			26-Dec 26-Dec GF
								26-Dec 26-Dec GF

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-04  
 47139-7 PILE #2

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
<del>Semi-volatile Organics by GC/MS</del>						
Acenaphthene	ND	ug/kg	270	1	8270	21-Dec 22-Dec
Benzidine	ND	ug/kg	2300			
1,2,4-Trichlorobenzene	ND	ug/kg	340			
Hexachlorobenzene	ND	ug/kg	270			
Bis(2-chloroethyl) ether	ND	ug/kg	290			
2-Chloronaphthalene	ND	ug/kg	290			
1,2-Dichlorobenzene	ND	ug/kg	270			
1,3-Dichlorobenzene	ND	ug/kg	310			
1,4-Dichlorobenzene	ND	ug/kg	230			
3,3'-Dichlorobenzidine	ND	ug/kg	610			
2,4-Dinitrotoluene	ND	ug/kg	340			
2,6-Dinitrotoluene	ND	ug/kg	270			
Azobenzene	ND	ug/kg	270			
Fluoranthene	ND	ug/kg	270			
4-Chlorophenyl phenyl ether	ND	ug/kg	290			
4-Bromophenyl phenyl ether	ND	ug/kg	270			
Bis(2-chloroisopropyl) ether	ND	ug/kg	190			
Bis(2-chloroethoxy)methane	ND	ug/kg	210			
Hexachlorobutadiene	ND	ug/kg	760			
Hexachlorocyclopentadiene	ND	ug/kg	730			
Hexachloroethane	ND	ug/kg	480			
Isophorone	ND	ug/kg	230			
Naphthalene	ND	ug/kg	210			
Nitrobenzene	ND	ug/kg	180			
NitrosoDiphenylAmine (NDPA) /DPA	ND	ug/kg	230			
n-Nitrosodi-n-propylamine	ND	ug/kg	250			
Bis(2-ethylhexyl) phthalate	ND	ug/kg	880			
Butyl benzyl phthalate	ND	ug/kg	190			
Di-n-butylphthalate	ND	ug/kg	860			
Di-n-octylphthalate	ND	ug/kg	230			
Diethyl phthalate	ND	ug/kg	480			
Dimethyl phthalate	ND	ug/kg	480			
Benzo (a) anthracene	ND	ug/kg	310			
Benzo (a) pyrene	ND	ug/kg	360			
Benzo (b) fluoranthene	ND	ug/kg	340			
Benzo (k) fluoranthene	ND	ug/kg	340			
Chrysene	ND	ug/kg	310			
Acenaphthylene	ND	ug/kg	250			
Anthracene	ND	ug/kg	230			
Benzo (ghi) perylene	ND	ug/kg	480			
Fluorene	ND	ug/kg	270			
Phenanthrene	ND	ug/kg	250			
Dibenzo (a, h) anthracene	ND	ug/kg	460			
Indeno (1, 2, 3-cd) pyrene	ND	ug/kg	460			
Pyrene	ND	ug/kg	270			
Aniline	ND	ug/kg	960			
4-Chloroaniline	ND	ug/kg	380			
1-Methylnaphthalene	ND	ug/kg	670			

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-04  
 47139-7 PILE #2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES PREP ANALYSIS
<del>Semi-volatile Organics by GC/MS continued</del>					
2-Nitroaniline	ND	ug/kg	310	1 8270	21-Dec 22-Dec
3-Nitroaniline	ND	ug/kg	570		
4-Nitroaniline	ND	ug/kg	550		
Dibenzofuran	ND	ug/kg	190		
a, a-Dimethylphenethylamine	ND	ug/kg	4400		
Hexachloropropene	ND	ug/kg	1900		
Nitrosodi-n-butylamine	ND	ug/kg	460		
2-Methylnaphthalene	ND	ug/kg	170		
Tetrachlorobenzene	ND	ug/kg	1200		
Pentachlorobenzene	ND	ug/kg	1200		
a-Naphthalamine	ND	ug/kg	1900		
b-Naphthalamine	ND	ug/kg	880		
Acetophenetidide	ND	ug/kg	960		
Dimethoate	ND	ug/kg	1900		
4-Aminobiphenyl	ND	ug/kg	990		
Pentachloronitrobenzene	ND	ug/kg	380		
Isodrin	ND	ug/kg	360		
p-Dimethylaminoazobenzene	ND	ug/kg	690		
Chlorobenzilate	ND	ug/kg	1500		
Bis (2-ethylhexyl) adipate	ND	ug/kg	310		
3-Methylcholanthrene	ND	ug/kg	1900		
Ethylmethanesulfonate	ND	ug/kg	1400		
Acetophenone	ND	ug/kg	460		
Nitrosodipiperidine	ND	ug/kg	1900		
7,12-Dimethylbenz (a) anthracene	ND	ug/kg	2300		
n-Nitrosodimethylamine	ND	ug/kg	3800		
2,4,6-Trichlorophenol	ND	ug/kg	190		
p-Chloro-m-cresol	ND	ug/kg	290		
2-Chlorophenol	ND	ug/kg	310		
2,4-Dichlorophenol	ND	ug/kg	960		
2,4-Dimethylphenol	ND	ug/kg	230		
2-Nitrophenol	ND	ug/kg	310		
4-Nitrophenol	ND	ug/kg	1100		
2,4-Dinitrophenol	ND	ug/kg	1400		
4,6-Dinitro-o-cresol	ND	ug/kg	1700		
Pentachlorophenol	ND	ug/kg	670		
Phenol	ND	ug/kg	800		
Cresol, Total	ND	ug/kg	690		
2,4,5-Trichlorophenol	ND	ug/kg	270		
2,6-Dichlorophenol	ND	ug/kg	460		
Benzoic Acid	ND	ug/kg	3800		
Benzyl Alcohol	ND	ug/kg	550		
SURROGATE RECOVERY					
2-Fluorophenol	66.0	%			
Phenol-d6	79.0	%			
Nitrobenzene-d5	114.	%			

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

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L9509693-04  
 47139-7 PILE #2

PARAMETER	RESULT	UNITS	RDL	REP	METHOD	DATES
<u>Semi-volatile Organics by GC/MS continued</u>						
2-Fluorobiphenyl				1	8270	21-Dec 22-Dec
2,4,6-Tribromophenol	93.0	%				
4-Terphenyl-d14	128.	%				
	116.	%				
<u>Polychlorinated Biphenyls</u>						
Arochlor 1221	ND			1	8090	21-Dec 26-Dec
Arochlor 1232	ND	ug/kg	250			
Arochlor 1242/PCB 1016	ND	ug/kg	250			
Arochlor 1248	ND	ug/kg	250			
Arochlor 1254	ND	ug/kg	250			
Arochlor 1260	ND	ug/kg	250			
Arochlor 1262	ND	ug/kg	250			
Arochlor 1268	ND	ug/kg	250			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	80.0	%				
Decachlorobiphenyl	92.0	%				
<u>Organochlorine Pesticides</u>						
Delta-BHC				1	8080	21-Dec 26-Dec
Lindane	ND	ug/kg	50.			
Alpha-BHC	ND	ug/kg	50.			
Beta-BHC	ND	ug/kg	50.			
Heptachlor	ND	ug/kg	50.			
Aldrin	ND	ug/kg	50.			
Heptachlor epoxide	ND	ug/kg	50.			
Endrin	ND	ug/kg	50.			
Endrin aldehyde	ND	ug/kg	50.			
Endrin ketone	ND	ug/kg	50.			
Dieldrin	ND	ug/kg	50.			
4,4'-DDE	ND	ug/kg	50.			
4,4'-DDD	ND	ug/kg	50.			
4,4'-DDT	ND	ug/kg	50.			
Endosulfan I	ND	ug/kg	50.			
Endosulfan II	ND	ug/kg	50.			
Endosulfan sulfate	ND	ug/kg	50.			
Methoxychlor	ND	ug/kg	50.			
Toxaphene	ND	ug/kg	50.			
Chlordane	ND	ug/kg	100			
	ND	ug/kg	50.			
SURROGATE RECOVERY						
2,4,5,6-Tetrachloro-m-xylene	80.0	%				
Decachlorobiphenyl	92.0	%				

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

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L9509693

Parameter	Value 1	Value 2	RPD	Units
pH	DUPLICATE for sample(s) 03-04			
	7.4	7.3	1	SU
Total Metals	DUPLICATE for sample(s) 01-02			
Mercury, Total	ND	ND	NC	mg/kg
TCLP Extraction	DUPLICATE for sample(s) 03-04			
Mercury, TCLP	ND	ND	NC	mg/l
TCLP Extraction	DUPLICATE for sample(s) 03-04			
Arsenic, TCLP	ND	ND	NC	mg/l
Barium, TCLP	ND	ND	NC	mg/l
Cadmium, TCLP	ND	ND	NC	mg/l
Chromium, TCLP	ND	ND	NC	mg/l
Lead, TCLP	ND	ND	NC	mg/l
Selenium, TCLP	ND	ND	NC	mg/l
Silver, TCLP	ND	ND	NC	mg/l



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L9509693

Parameter	% Recovery
<del>Total Metals: SPIKE for sample(s) 01-02</del>	
Arsenic, Total	100
Barium, Total	88
Cadmium, Total	100
Lead, Total	89
Silver, Total	80
<del>Total Metals: SPIKE for sample(s) 01-02</del>	
Mercury, Total	113
<del>TCLP Extraction: SPIKE for sample(s) 03-04</del>	
Mercury, TCLP	123
<del>TCLP Extraction: SPIKE for sample(s) 03-04</del>	
Arsenic, TCLP	103
Barium, TCLP	100
Cadmium, TCLP	103
Chromium, TCLP	103
Lead, TCLP	104
Selenium, TCLP	102
Silver, TCLP	90

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L9509693

Parameter	MS %	MSD %	RPD
-----------	------	-------	-----

~~Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 01-02~~

1,1-Dichloroethene	104	102	2
Trichloroethene	101	104	3
Benzene	96	102	6
Toluene	99	103	4
Chlorobenzene	99	105	6

~~Semi-volatile Organic by GC/MS MS/MSD for sample(s) 01-04~~

p-Chloro-m-cresol	30	40	29
2-Chlorophenol	62	45	32
Phenol	75	51	38
Acenaphthene	79	79	0
1,2,4-Trichlorobenzene	116	88	27
1,4-Dichlorobenzene	102	74	32
2,4-Dinitrotoluene	45	56	22
N-Nitrosodipropylamine	89	78	13
Pyrene	94	87	8

SURROGATE RECOVERY

2-Fluorophenol	77	45	52
Phenol-d6	64	40	46
Nitrobenzene-d5	82	63	26
2-Fluorobiphenyl	72	75	4
2,4,6-Tribromophenol	102	71	36
4-Terphenyl-d14	80	66	19

~~Pesticide Spike Recovery MS/MSD for sample(s) 01-04~~

Lindane	138	161	15
Heptachlor	74	100	30
Aldrin	83	103	22
Endrin	103	119	14
Dieldrin	92	101	9
4,4'-DDT	91	133	38

SURROGATE RECOVERY

2,4,5,6-Tetrachloro-m-xylene	84	118	34
Decachlorobiphenyl	90	104	14

ALPHA ANALYTICAL LABS  
ADDENDUM I

---

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. 1986.
3. Standard Methods for Examination of Water and Waste Water. APHA-AWWA-WPCF. 17th Edition. 1989.

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.

**ALPHA**  
Analytical Laboratories, Inc.

178  
Westborough, MA 01581-1019  
508-898-9220 FAX 508-898-9193

**CHAIN OF CUSTODY RECORD  
and ANALYSIS REQUEST RECORD**

No. 56659

Company Name: *Laidlaw*  
*Ralph W. Laidlaw*

Project Number:

Project Name/Location:  
*Dry Well Excavation*

Date Received to Lab:  
*12/19*

Sheet 1 of 1  
Date Due: *12/26*

Company Address:

P.O. Number: *179987*

Project Manager:  
*Dave Danis*

Alpha Job Number: (Lab use only):  
*9509693*

Phone Number:

FAX No.:

**ALPHA**  
**Lab #**  
(Lab Use Only)

Sample I.D.

Container Codes:  
P = Plastic V = Vial  
C = Cube G = Glass  
A = Amber Glass  
B = Bacteria Container  
O = Other

Containers  
(number/type)

Matrix/Source

Method Preserve.  
(number of containers)

Unpres.	Ice	Nitric	Sulfuric	HCl	Other
---------	-----	--------	----------	-----	-------

Solubles - F.I.

Sampling

Date Time

**MATRIX / SOURCE CODES**  
 MV = Monitoring Well RO = Runoff O = Outfall W = Well LF = Landfill  
 L = Lake/Pond/Ocean I = Influent E = Effluent DW = Drinking Water  
 R = River Stream S = Soil SO = Sludge B = Bottom Sediment  
 X1 = Other X2 = Other

Analysis Requested

ALPHA Lab #	Sample I.D.	Containers	Matrix/Source	Method Preserve.	Solubles - F.I.	Sampling Date	Sampling Time	Analysis Requested
<i>9693</i>	<i>47133-06</i>	<i>1P</i>	<i>S</i>	<i>1</i>		<i>12/19</i>	<i>14:10</i>	<i>ABN, TRCRA8, 8260, TPH1R (TS)</i>
<i>2</i>	<i>↓ - 07</i>	<i>↓</i>	<i>↓</i>					<i>↓ ↓ ↓ ↓</i>
<i>3</i>	<i>47139-6</i>	<i>↓</i>	<i>↓</i>					<i>TCLP-RCRA8, ABN, TPH-1R, PH, Flash, Lead</i>
<i>4</i>	<i>↓ - 7</i>	<i>↓</i>	<i>↓</i>					<i>↓ ↓ ↓ ↓ ↓</i>

Sampler's Signature: \_\_\_\_\_  
 Affiliation: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

ADDITIONAL COMMENTS:  
*BILL LAIDLAW*

NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
<i>1</i>	<i>[Signature]</i>		<i>12/19</i>	<i>16:30</i>
<i>2</i>				
<i>3</i>				
<i>4</i>				



# IEA

An Aquarion Company

149 Rangeway Road  
N. Billerica, Massachusetts 01862  
508 / 867-1400  
Fax 508 / 867-7871

## CHAIN OF CUSTODY RECORD

### REGULATORY CLASSIFICATION - PLEASE SPECIFY

NPDES  DRINKING WATER  RCRA  MCP  OTHER

REQUIRED

CUSTODY  
IEA ONLY

TURN AROUND

15 BUSINESS DAY  
 10 BUSINESS DAY  
 RUSH  
 OTHER 5 DAY

COMPANY			CONTACT PERSON		PROJECT ID		PHONE #	FAX #	REQUESTED PARAMETERS							COMMENTS				
Landlaw			Dale Danis		47139 AND 47133		508 867 1100	508 667 1112	MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	TURB KCR	PCB	SVOC	TOT AL PCB	VOC	TAH by IR	PH/Elev Pint CN with des.	
DATE	TIME	SAMPLE I.D.																		
12/19	2:44	47133-06	S	P	1	None	X	X	X	X	Y									Stock Pile
		47133-07	S	P	1		X	X	Y	X										Stock Pile
		47139-61-P.L.#1	S	P	1		X	X				X	X	X						Stock Pile
		47139-27-P.L.#2	S	P	1		X	X				X	X	X						Stock Pile

SAMPLED BY: <u>Scott Kendall</u>		(PRINT NAME)		(SIGNATURE)	
RECEIVED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME
<u>[Signature]</u>	12/19/05 2:20	<u>[Signature]</u>	12/19/05 2:20	<u>[Signature]</u>	12/19/05 2:30
RECEIVED BY (SIGNATURE)	DATE/TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE/TIME		
<u>[Signature]</u>	12/19/05 2:20	<u>[Signature]</u>	12/19/05 2:20		

IEA USE ONLY

FIELD REMARKS  
FAX ALL RESULTS TO: Landlaw  
AND: Raylin Grace Howard