



ERD Environmental, Inc.
An ERD Waste Corp. Company

10 30 AM '96

205 Main Street • P.O. Box 1760 • Brattleboro, VT 05302-1760 • 802.254.3677 • 800.359.3677 • Fax 802.254.7630 • www.erdwaste.com

November 12, 1996

Mr. Rusty Priggen
P.O. Box 187
Windham, VT 05359

Re: Procedures and Findings
187 Burpee Pond Road, Windham, VT

Dear Mr. Priggen:

On September 9, 1996, ERD Environmental, Inc. (ERD) responded to a telephone call regarding an oil release at the address referenced above (the site). Based on that conversation, it was estimated that between 125 and 150 gallons of No. 2 fuel oil had leaked from a pinhole at the bottom of a 275-gallon aboveground storage tank (AST) located in the basement of the on-site residence. The release appeared to have migrated to soil and fractured bedrock which comprised the floor of the unfinished basement. The release was estimated to have occurred during August 1996.

During the week of October 14, 1996, ERD personnel conducted cleanup activities at the site per ERD contracts #96-107a and #96-107b, both dated October 4, 1996. During these activities, a portion of the building's foundation and nearby soils were removed in order to access the basement. Once access to the basement was secured, the 275-gallon AST was cleaned and removed. The AST was cut in half and retained on-site by the owner. Oil and water generated from the tank cleaning were contained on-site in a 55-gallon drum for disposal purposes.

Following the AST removal, basement soils were field screened for volatile organic compounds (VOCs) using a Thermo Environmental Instruments Model 580B Organic Vapor Meter (OVM). The OVM was field calibrated to 250 parts per million (ppm) of isobutylene span gas. Any soils which exhibited greater than 10 ppm of VOCs as measured by the OVM or contained visual or olfactory evidence of fuel oil contamination were excavated by hand and polyencapsulated at the site. The maximum VOC concentration measured in the soils during excavation was approximately 180 ppm. The approximate extent of fuel oil contaminated soils is shown in Attachment A. A total of between 7.5 and 10 cubic yards of contaminated soil was removed.

During the soil removal activities, a floor drain located in the basement of the building (see Attachment A for approximate location) was observed to have provided a pathway for the released oil to reach soils outside the building. Excavation and inspection of the floor drain system revealed that oily groundwater had seeped into the perforated floor drain piping inside the basement and leaked from the perforated piping in the vicinity of the on-site drinking water supply well. The system was replaced, with non-perforated piping installed outside the house to prevent any potential future discharges of oily groundwater from the piping in that area. The

area was then covered with clean backfill. Contaminated soils excavated from the area were screened and subsequently stockpiled and polyencapsulated at the site, along with soils removed from the basement. A total of between 7.5 and 10 cubic yards of contaminated soil was removed from the area.

A composite soil sample (labeled "RPSP") was collected from the stockpile of contaminated soil and submitted to Alpha Analytical Laboratories of Westborough, Massachusetts for waste characterization analyses. A copy of the laboratory results is attached in Attachment B. These results confirmed that the soil was contaminated with #2 fuel oil. The soil has been accepted for transport to the ESMI thermal treatment facility in Loudon, New Hampshire, by ESMI. The disposal facility recycles virgin petroleum contaminated soils for incorporation into asphalt products. ERD is currently awaiting approval for the disposal of soil from the State of Vermont's Department of Environmental Conservation (VT DEC).

Following removal of the oil-contaminated soils, polyvinyl chloride (PVC) well screen was installed in the basement to serve as a horizontal soil vapor extraction point. The slotted screen, 10 feet in length and 2 inches in diameter, extends from the former AST location to the southern wall of the basement (see Attachment A for approximate location) at a depth of approximately 8 inches below the basement floor surface. Peastone was used to backfill from the bottom of the excavation up to and around the horizontal soil vapor extraction point. A 6-mil plastic vapor barrier was placed over the vapor extraction point at an approximate depth of 6 inches below the basement floor surface and extending across the former soil contamination area. Peastone was then used to cover the vapor barrier and bring the basement floor back to its former grade.

Prior to the installation of the horizontal soil vapor extraction point, groundwater had collected in low-lying bedrock areas of the basement, at the bottom of the excavation. The groundwater was observed to have an oily sheen. Three shallow well points were installed in the backfilled peastone to intercept groundwater flow during high water table periods and provide a groundwater control mechanism for the soil vapor extraction system (via the periodic pumping of each point with a portable surface pump). Each well point consisted of approximately 24 inches of vertical, 2-inch diameter PVC riser and 6 inches of horizontal, 2-inch diameter PVC screen connected to the base of the riser by a PVC elbow. The approximate locations of the well points are shown in Attachment A.

A water sample collected from the on-site drinking water supply well was analyzed at Alpha Analytical Laboratories of Westborough, Massachusetts, for the presence of VOCs using Environmental Protection Agency (EPA) Method 8260. Benzene, toluene, ethylbenzene, methyl tertiary butyl ether (MTBE), xylenes, sec-butylbenzene, isopropylbenzene, p-isopropyltoluene, naphthalene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene were detected in the drinking

water sample. The concentration of benzene identified in the sample, 12 parts per billion (ppb), exceeded the VT DEC Primary Groundwater Quality Enforcement Standard (PGQES) of 5.0 ppb. None of the other compounds were detected at concentrations which exceeded their respective PGQES. However, benzene, naphthalene, MTBE, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene concentrations did exceed their Vermont Health Advisory (VHA) levels. The laboratory results of the drinking water sample analyses are included as Attachment B and summarized below in Table 1.

Table 1. Contaminants detected in the water supply well.

Compound	Concentration (ppb)	PGQES (ppb)	VHA (ppb)
Benzene	12	5.0	1.0
sec-Butylbenzene	1.7	NE	NE
Ethylbenzene	13	680	NE
Isopropylbenzene	2.7	NE	NE
p-Isopropyltoluene	6.2	NE	NE
Methyl tertiary butyl ether	83	NE	40.0
Naphthalene	35	NE	20.0
Toluene	9.9	2,420	NE
1,2,4-Trimethylbenzene	31	NE	5.0
1,3,5-Trimethylbenzene	14	NE	4.0
Xylenes	50	400	NE
NE = Not established			

The water sample from the supply well was also analyzed for the presence of total petroleum hydrocarbons (TPH) using EPA Method 8100M. The laboratory identified No. 2 fuel oil/diesel in the sample at a concentration of 3.0 ppm. The laboratory results are included in Attachment B.

An oily sheen was noted in the groundwater collected from the on-site drinking water well. This observation, in conjunction with the observation of an oily sheen on groundwater in the basement and the laboratory results presented above, suggests that the reported release of fuel oil in the basement has impacted groundwater in the bedrock at the site. The release appears to have migrated through basement soils into bedrock, and also appears to have migrated along a former floor drain into the soils in the vicinity of the drinking water well.

Mr. Rusty Priggen
Procedures and Findings

November 12, 1996
187 Burpee Pond Road, Windham, VT

Please call us at (800) 359-3677 if you have any questions regarding the above information or if you should require additional assistance. We appreciate this opportunity to have provided environmental services.

Sincerely yours,
ERD Environmental, Inc.



Kimberly B. Mitchell
Hydrogeologist



Michael A. Heidorn
Project Manager

Attachments (2)

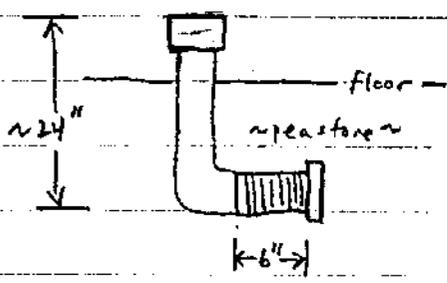
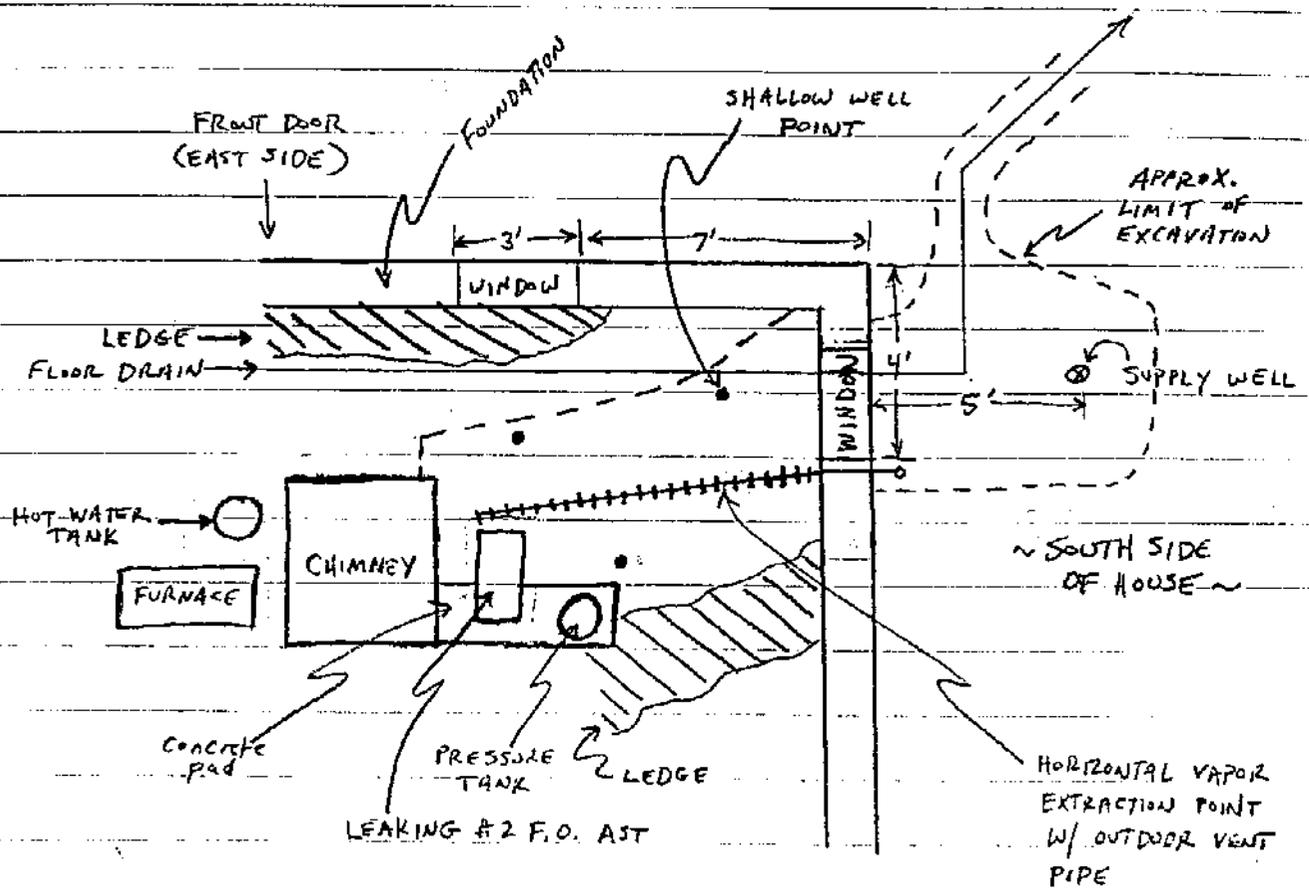
cc: Richard Spiese, VT DEC
Julie Shope, Exeter Env.

e:\docs\961001\summ.let

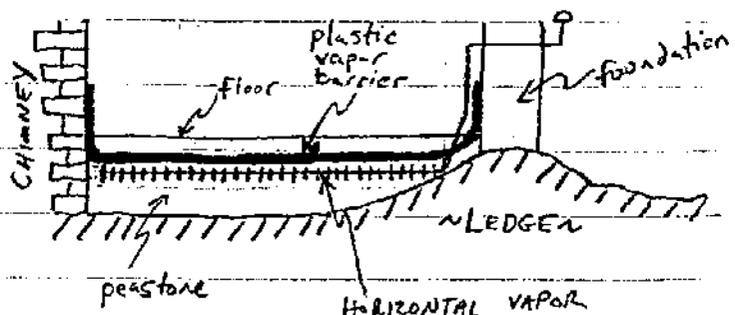
ATTACHMENT A
Site Sketch

DRAWN BY: MAH
 DATE: 11/12/96
 REV. BY: STG

SITE SKETCH PRIGGENS RESIDENCE WINDHAM, VT



SHALLOW WELL POINT
 (TYPICAL)



HORIZONTAL VAPOR
 EXTRACTION POINT
 W/ OUTDOOR VENT
 PIPE

ATTACHMENT B
Laboratory Results

ALPHA ANALYTICAL LABORATORIES

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

RECEIVED OCT 29 1996

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

CERTIFICATE OF ANALYSIS

Client: ERD Environmental, Inc.

Laboratory Job Number: L9607625

Address: 205 Main Street
PO Box 1760
Brattleboro, VT 05302

Invoice Number: 87937

Date Received: 16-OCT-96

Attn: M. Heidorn

Date Reported: 23-OCT-96

Project Number: 961001

Delivery Method: Alpha

Site: Priggen Residence

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9607625-01	RPSP-101596-961001	Windham
L9607625-02	RPDW-101596-961001	Windham
L9607625-03	RP01-101596-961001	Windham

Authorized by: James R. Roth

James R. Roth, PhD - Laboratory Manager

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L9607625-01 Date Collected: 15-OCT-96
 RPSP-101596-961001 Date Received : 16-OCT-96
 Sample Matrix: SOIL Date Reported : 23-OCT-96
 Condition of Sample: Satisfactory Field Prep: None
 Number & Type of Containers: 2 Vial, 4 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES		ID
						PREP	ANALYSIS	
Solids, Total	80.	%	0.10	3	2540B		21-Oct	ST
pH	6.5	SU		1	9040		16-Oct	ST
Flash Point	>200	F	60	1	1010		22-Oct	ST
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		23-Oct	ST
Sulfide, Reactive	ND	mg/kg	0.20	1	7.3		23-Oct	ST
Total Metals				1	3005/3050			
Asenic, Total	1.3	mg/kg	0.20	1	6010		18-Oct	22-Oct GF
Barium, Total	59.	mg/kg	2.0	1	6010		18-Oct	22-Oct GF
Cadmium, Total	0.50	mg/kg	0.40	1	6010		18-Oct	22-Oct GF
Chromium, Total	6.5	mg/kg	0.80	1	6010		18-Oct	22-Oct GF
Lead, Total	57.	mg/kg	2.0	1	6010		18-Oct	22-Oct GF
Mercury, Total	ND	mg/kg	0.25	1	7470/7471		21-Oct	22-Oct DM
Selenium, Total	ND	mg/kg	0.40	1	6010		18-Oct	22-Oct GF
Silver, Total	ND	mg/kg	0.40	1	6010		18-Oct	22-Oct GF
Chlorinated Herbicides				1	8150		17-Oct	22-Oct DE
MCPPP	ND	ug/kg	50.					
MCPA	ND	ug/kg	50.					
Dalapon	ND	ug/kg	50.					
Dicamba	ND	ug/kg	50.					
Dichloroprop	ND	ug/kg	50.					
Picloram	ND	ug/kg	50.					
2,4-D	ND	ug/kg	50.					
2,4-DB	ND	ug/kg	50.					
2,4,5-T	ND	ug/kg	50.					
2,4,5-TP (Silvex)	ND	ug/kg	50.					
Dinoseb	ND	ug/kg	50.					

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

Laboratory Sample Number: L9607625-01.
 RPSP-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	ID
						PREP ANALYSIS	
Volatile Organics by GC/MS				1	8260	21-Oct 21-Oct	DB
Methylene chloride	ND	ug/kg	100				
1,1-Dichloroethane	ND	ug/kg	30.				
Chloroform	ND	ug/kg	30.				
Carbon tetrachloride	ND	ug/kg	20.				
1,2-Dichloropropane	ND	ug/kg	70.				
Dibromochloromethane	ND	ug/kg	20.				
1,1,2-Trichloroethane	ND	ug/kg	30.				
2-Chloroethylvinyl ether	ND	ug/kg	200				
Tetrachloroethene	ND	ug/kg	30.				
Chlorobenzene	ND	ug/kg	70.				
Trichlorofluoromethane	ND	ug/kg	100				
1,2-Dichloroethane	ND	ug/kg	30.				
1,1,1-Trichloroethane	ND	ug/kg	20.				
Bromodichloromethane	ND	ug/kg	20.				
trans-1,3-Dichloropropene	ND	ug/kg	30.				
cis-1,3-Dichloropropene	ND	ug/kg	20.				
Bromoform	ND	ug/kg	20.				
1,1,2,2-Tetrachloroethane	ND	ug/kg	20.				
Benzene	ND	ug/kg	20.				
Toluene	ND	ug/kg	30.				
Ethylbenzene	ND	ug/kg	20.				
Chloromethane	ND	ug/kg	200				
Bromomethane	ND	ug/kg	40.				
Vinyl chloride	ND	ug/kg	70.				
Chloroethane	ND	ug/kg	40.				
1,1-Dichloroethene	ND	ug/kg	30.				
trans-1,2-Dichloroethene	ND	ug/kg	30.				
Trichloroethene	ND	ug/kg	20.				
1,2-Dichlorobenzene	ND	ug/kg	200				
1,3-Dichlorobenzene	ND	ug/kg	200				
1,4-Dichlorobenzene	ND	ug/kg	200				
Methyl tert butyl ether	ND	ug/kg	200				
Xylenes	290	ug/kg	20.				
cis-1,2-Dichloroethene	ND	ug/kg	20.				
Dibromomethane	ND	ug/kg	200				
1,4-Dichlorobutane	ND	ug/kg	200				
Iodomethane	ND	ug/kg	200				
1,2,3-Trichloropropane	ND	ug/kg	200				
Styrene	ND	ug/kg	20.				
Dichlorodifluoromethane	ND	ug/kg	200				
Acetone	ND	ug/kg	200				
Carbon Disulfide	ND	ug/kg	200				
2-Butanone	ND	ug/kg	90.				
Vinyl Acetate	ND	ug/kg	200				
4-Methyl-2-pentanone	ND	ug/kg	200				
2-Hexanone	ND	ug/kg	200				
Ethyl methacrylate	ND	ug/kg	200				
Acrolein	ND	ug/kg	500				

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

Laboratory Sample Number: L9607625-01
 RPSP-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	ID
						PREP ANALYSIS	

Volatile Organics by GC/MS continued				1	8260	21-Oct 21-Oct	DB
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Acrylonitrile	ND	ug/kg	200				
Bromochloromethane	ND	ug/kg	100				
2,2-Dichloropropane	ND	ug/kg	100				
1,2-Dibromoethane	ND	ug/kg	100				
1,3-Dichloropropane	ND	ug/kg	100				
1,1,1,2-Tetrachloroethane	ND	ug/kg	100				
Bromobenzene	ND	ug/kg	100				
n-Butylbenzene	ND	ug/kg	100				
sec-Butylbenzene	ND	ug/kg	100				
tert-Butylbenzene	ND	ug/kg	100				
o-Chlorotoluene	ND	ug/kg	100				
p-Chlorotoluene	ND	ug/kg	100				
1,2-Dibromo-3-chloropropane	ND	ug/kg	100				
Hexachlorobutadiene	ND	ug/kg	100				
Isopropylbenzene	ND	ug/kg	100				
p-Isopropyltoluene	550	ug/kg	100				
Naphthalene	ND	ug/kg	100				
n-Propylbenzene	ND	ug/kg	100				
1,2,3-Trichlorobenzene	ND	ug/kg	100				
1,2,4-Trichlorobenzene	ND	ug/kg	100				
1,3,5-Trimethylbenzene	650	ug/kg	100				
1,3,4-Trimethylbenzene	590	ug/kg	100				
trans-1,4-Dichloro-2-butene	ND	ug/kg	100				
Ethyl ether	ND	ug/kg	500				

SURROGATE RECOVERY

Toluene-d8	101.	%					
4-Bromofluorobenzene	106.	%					
Dibromofluoromethane	98.0	%					

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

Laboratory Sample Number: L9607625-01
 RPS-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES PREP ANALYSIS
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Polynuclear Aromatics by GC/MS				1	8270	17-Oct 17-Oct
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Acenaphthene	1400	ug/kg	260
2-Chloronaphthalene	ND	ug/kg	280
Fluoranthene	410	ug/kg	260
Naphthalene	2200	ug/kg	210
Benzo (a) anthracene	ND	ug/kg	300
Benzo (a) pyrene	ND	ug/kg	360
Benzo (b) fluoranthene	ND	ug/kg	340
Benzo (k) fluoranthene	ND	ug/kg	340
Chrysene	360	ug/kg	190
Acenaphthylene	ND	ug/kg	250
Anthracene	ND	ug/kg	230
Benzo (ghi) perylene	ND	ug/kg	470
Fluorene	1900	ug/kg	260
Phenanthrene	4400	ug/kg	250
Dibenzo (a, h) anthracene	ND	ug/kg	450
Indeno (1, 2, 3-cd) pyrene	ND	ug/kg	450
Pyrene	980	ug/kg	260
1-Methylnaphthalene	4500	ug/kg	660
2-Methylnaphthalene	11000	ug/kg	170

SURROGATE RECOVERY

Nitrobenzene-d5	121.	%
2-Fluorobiphenyl	138.	%
4-Terphenyl-d14	124.	%

Polychlorinated Biphenyls				1	8080	17-Oct 18-Oct
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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

SURROGATE RECOVERY

2,4,5,6-Tetrachloro-m-xylene	24.0	%
Decachlorobiphenyl	30.0	%

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

Laboratory Sample Number: L9607625-01.
 RPSP-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS	ID
Organochlorine Pesticides				1	8080	17-Oct 18-Oct	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.				

PROBATE RECOVERY

2,4,5,6-Tetrachloro-m-xylene	24.0	%					
Decachlorobiphenyl	30.0	%					

Hydrocarbon Scan GC 8100 Modified 1 8100M 17-Oct 17-Oct DE

Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	990	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	160	mg/kg	100				
Kerosene	ND	mg/kg	100				

SURROGATE RECOVERY

o-Terphenyl	84.0	%					
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Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L9607625-02 Date Collected: 15-OCT-96
 RPDW-101596-961001 Date Received : 16-OCT-96
 Sample Matrix: WATER Date Reported : 23-OCT-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	21-Oct DB
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	ND	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	ND	ug/l	1.5			
Chlorobenzene	ND	ug/l	3.5			
Dichlorofluoromethane	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	12.	ug/l	1.0			
Toluene	9.9	ug/l	1.5			
Ethylbenzene	13.	ug/l	1.0			
Chloromethane	ND	ug/l	10.			
Bromomethane	ND	ug/l	2.0			
Vinyl chloride	ND	ug/l	2.0			
Chloroethane	ND	ug/l	2.0			
1,1-Dichloroethene	ND	ug/l	1.0			
trans-1,2-Dichloroethene	ND	ug/l	1.5			
Trichloroethene	ND	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	83.	ug/l	10.			
Xylenes	50.	ug/l	1.0			
cis-1,2-Dichloroethene	ND	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

RECEIVED OCT 29 1996

Laboratory Sample Number: L9607625-02.
 RPDW-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE	PREP ANALYSIS
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Volatile Organics by GC/MS continued				1	B260	21-Oct	DE
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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	1.7	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	2.7	ug/l	1.0				
p-Isopropyltoluene	6.2	ug/l	1.0				
Naphthalene	35.	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	14.	ug/l	1.0				
1,2,4-Trimethylbenzene	31.	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	93.0	%					
4-Bromofluorobenzene	94.0	%					
Dibromofluoromethane	93.0	%					

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1998

Laboratory Sample Number: L9607625-02
 RPDW-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	PREP ANALYSIS	IN		
Hydrocarbon Scan GC 8100 Modified							1	8100M	17-Oct 17-Oct	DE
Mineral Spirits	ND	mg/l	1.0							
Gasoline	ND	mg/l	1.0							
Fuel Oil #2/Diesel	3.0	mg/l	1.0							
Fuel Oil #4	ND	mg/l	1.0							
Fuel Oil #6	ND	mg/l	1.0							
Motor Oil	ND	mg/l	1.0							
Kerosene	ND	mg/l	1.0							
SURROGATE RECOVERY										
o-Terphenyl	105.		*							

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED OCT 29 1996

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L9607625-03 Date Collected: 15-OCT-96
 RP01-101596-961001 Date Received : 16-OCT-96
 Sample Matrix: WATER Date Reported : 23-OCT-96
 Condition of Sample: Satisfactory Field Prep: None
 Number & Type of Containers: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATES	ID	
					PREP ANALYSIS		
Volatile Organics by GC/MS					1	8260	22-Oct DB
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	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	ND	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	ND	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	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	ND	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	ND	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

RECEIVED OCT 29 1996

Laboratory Sample Number: L9607625-03
 RP01-101596-961001

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES	ID
						PREP ANALYSIS	

Volatile Organics by GC/MS continued				1	8260	22-Oct	DB
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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	ND	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	ND	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	104.	%					
4-Bromofluorobenzene	113.	%					
Dibromofluoromethane	112.	%					

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

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

RECEIVED OCT 29 1996

Laboratory Job Number: L9607625

Parameter	Value 1	Value 2	RPD	Units
Solids, Total	DUPLICATE for sample(s) 01			
	96.	95.	1	%
pH	DUPLICATE for sample(s) 01			
	6.5	6.6	2	SU
Total Metals	DUPLICATE for sample(s) 01			
Mercury, Total	ND	ND	NC	mg/kg
Total Metals	DUPLICATE for sample(s) 01			
Arsenic, Total	4.4	4.0	10	mg/kg
Barium, Total	28.	29.	2	mg/kg
Cadmium, Total	ND	ND	NC	mg/kg
Chromium, Total	15.	13.	14	mg/kg
Lead, Total	16.	16.	3	mg/kg
Selenium, Total	ND	ND	NC	mg/kg
Silver, Total	ND	ND	NC	mg/kg

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

RECEIVED OCT 29 1996

oratory Job Number: L9607625

Parameter	% Recovery
Total Metals	SPIKE for sample(s) 01
Mercury, Total	122
Total Metals	SPIKE for sample(s) 01
Arsenic, Total	100
Barium, Total	91
Cadmium, Total	90
Chromium, Total	64
Silver, Total	80

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

RECEIVED OCT 29 1996

Laboratory Job Number: L9607625

Parameter	MS %	MSD %	RPD
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Volatile Organics by GC/MS Spike Recovery MS/MSD for sample(s) 02-03

1,1-Dichloroethene	96	93	3
Trichloroethene	101	100	1
Benzene	100	99	1
Toluene	100	97	3
Chlorobenzene	101	98	3

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

1,1-Dichloroethene	105	92	13
Trichloroethene	110	99	11
Benzene	107	99	8
Toluene	110	96	14
Chlorobenzene	109	98	11

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

Acenaphthene	128	116	10
1,2,4-Trichlorobenzene	108	100	8
1,4-Dichlorobenzene	118	100	17
2,4-Dinitrotoluene	109	100	9
N-Nitrosodipropylamine	112	104	7
rene	128	128	0

SURROGATE RECOVERY

Nitrobenzene-d5	110	106	4
2-Fluorobiphenyl	102	92	10
4-Terphenyl-d14	120	116	3

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

Lindane	56	57	2
Heptachlor	55	57	4
Aldrin	58	59	2
Endrin	65	77	17
Dieldrin	55	60	9
4,4'-DDT	59	62	5

SURROGATE RECOVERY

2,4,5,6-Tetrachloro-m-xylene	53	55	4
Decachlorobiphenyl	60	65	8

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

RECEIVED OCT 29 1996

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.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

ALPHA

Analytical Laboratories, Inc.

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508-898-9220 FAX 508-898-9193

CHAIN OF CUSTODY RECORD and ANALYSIS REQUEST RECORD

No. 25177
Sheet 1 of 1

Company Name: ERD ENVIRONMENTAL, INC.	Project Number: 961001	Project Name/Location: PRIGGEN RESIDENCE WINDHAM	Date Received in Lab: 10/16	Date Due: 10/23
Company Address: 205 MAIN ST. BRATTLEBORO VT 05302	P.O. Number: 4236	Project Manager: M. HEIDORN	Alpha Job Number: (Lab use only) 9607625	
Phone Number: 802-254-3677	FAX No.: 254-7630			

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.F.	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 _____		
					Unpres.	Ice	Nitric	Sulfuric	HCl	Other						IGNITABILITY Analysis Requested	
7625	RSP-101596-961001	4/G	S	X							10/15	3:40	1010, 9045 ^{PH} , SW 846 ^{Reactive sulfide} 7.3.4.1, SW 846 ^{Reactive cyanide} 7.3.3.2, 8080 (PCB SLUD)				
													RCRA 8 METALS (TOTAL), 8080 PESTICIDES				
													8150 HERBICIDES, 8100m, 8015m				
	RSP-101596-961001	2/V	S	X							10/15	3:40	8260, 8270 (PAH)				
	RPDW-101596-961001	2/V	DW					X			10/15	12:30	8260				
	RPDW-101596-961001	2/A	DW	X							10/15	12:35	8100m				
	RP-01-101596-961001	1/V	SB					X			10/15	9:00	8260				

Signature: 	Affiliation: ERD	Date: 10/15/16	Time: 4:45	NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
ADDITIONAL COMMENTS: Soil samples could be hot Trip BLANK included (MATT)				1			10/16/16	3:20
				2			10/16/16	18:30
				3				
				4				