

MAR 15 1995

Environmental Services of America, Inc.



ENSA Environmental, Inc.

205 Main Street
P.O. Box 1760
Brattleboro, VT 05302
Phone: (802) 254-3677
1-800-359-3677
Fax: (802) 254-7630

March 13, 1995

Mr. Jason Feingold
Sites Management Section
VT DEC Hazardous Materials Management Division
103 South Main Street/West Office
Waterbury, VT 05671-0404

**RE: Summary Report
East Dover Volunteer Fire Company, East Dover
DEC Site #94-1657**

Dear Mr. Feingold:

On behalf of the East Dover Volunteer Fire Company, ENSA Environmental, Inc. is pleased to submit the above-referenced report for your review.

If you have any questions or require further information, please contact me at 1-800-359-3677.

Sincerely,
ENSA Environmental, Inc.

Susan L. Chaffee
Project Manager

Enclosure

cc: Leonard Hall, East Dover Volunteer Fire Company

477.22
OVER
BILLING

477.22
206 off for
AIRMA ANALYSIS

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**ENVIRONMENTAL
SITE INVESTIGATION
REPORT**

**East Dover Volunteer Fire Company, Inc.
Dover Road
East Dover, Vermont
DEC Site #94-1657**

Prepared For:

Mr. Leonard Hall
East Dover Volunteer Fire Co., Inc.
Dover Road
East Dover, VT 05341

Prepared By:

ENSA Environmental, Inc.
205 Main Street
Brattleboro, VT 05301
800-359-3677 phone; 802-254-7630 fax
Contact: Susan Chaffee
Reviewed by: David Gagnon

March 6, 1995

ENSA Environmental, Inc. Job #498

EXECUTIVE SUMMARY

ENSA Environmental, Inc. of Brattleboro, Vermont, performed an environmental site investigation of the East Dover Volunteer Fire Company property located on Dover Road in East Dover, Vermont. The purpose of the investigation was to define the degree and extent of soil and groundwater contamination at the site, and to identify sensitive receptors which might be impacted by such contamination.

A 1,000 gallon UST which had been used to store fuel oil to heat the site building was removed from the site on July 8, 1994. At that time, soil samples from the tank pit were screened with a photoionization detector (PID); the maximum concentration of Volatile Organic Compounds (VOCs) detected was 397.0 ppm.

Drinking water at the site is obtained from an on-site well, located approximately 50 feet downgradient of the former UST location. Several other private drinking water wells are located within a half-mile of the site. The Rock River is located approximately 60 feet downgradient of the former UST location. The site drinking water was sampled on February 28, 1995, and analyzed by EPA Method 8020. No contaminants tested for were detected.

On December 7, 1994, four soil borings were advanced at the East Dover Fire Company site. Headspace screening of split spoon soil samples from the borings revealed no contamination. Groundwater monitoring wells were installed in the boreholes. The monitoring wells were gauged and sampled on December 15, 1994. Groundwater samples were analyzed by US EPA Method 8020. No contaminants tested for were detected.

Groundwater was measured to occur at depths of 6.87 to 10.02 feet below the tops of the PVC monitoring wells. Groundwater flow direction was determined to be to the southeast, toward Dover Road.

One cubic yard of contaminated soils from the tank removal remains polyencapsulated onsite. The soil was inaccessible during this investigation due to snow cover. We recommend that this soil be screened with a PID when weather conditions permit.

ENSA Environmental, Inc. recommends that the drinking water well and groundwater monitoring wells be sampled again in March and August, 1995. If analyses by EPA Method 8020 reveal no contaminants in either round of samples, and if screening of the stockpiled soils reveals no contamination, then a SMAC designation should be issued for this site.

**Environmental Site Investigation Report
East Dover Volunteer Fire Company, Inc.
Dover Road
East Dover, Vermont
DEC Site #94-1657**

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1.00 INTRODUCTION

A 1,000 gallon fuel oil underground storage tank (UST) was removed from the East Dover Volunteer Fire Company property on Dover Road in East Dover, Vermont on July 8, 1994. Petroleum contaminated soil (up to 397 ppm VOCs, as detected with a PID) was encountered during the tank removal, and approximately 1 cubic yard was polyencapsulated. The East Dover Volunteer Fire Company, Inc. submitted tank removal forms to the Vermont Department of Environmental Conservation (VT DEC). After reviewing that information, the DEC Sites Management Section (SMS) required that additional work be conducted to determine the severity of contamination present.

2.00 SITE DESCRIPTION

The East Dover Volunteer Fire Company is located on the northwest side of Dover Road in East Dover, Vermont. A site locus map, based on the USGS Topographic map of the West Dover, Vermont Quadrangle, is presented in Appendix A of this report.

The East Dover Fire Volunteer Company building is heated with fuel oil which is now stored in a 275-gallon aboveground tank. The boiler room is located at the west corner of the building; the 1,000 gallon fuel oil UST was located just outside this room, on the northwest side of the building. Drinking water at the site is obtained from a well located on the south side of the property, between the site building and the Rock River.

The USGS Topographic map (Appendix A) shows the site to be at an elevation of approximately 1,073 feet (327 meters) above mean sea level. The Rock River flows generally to the east-southeast, and passes just southwest of the site.

3.00 SUBSURFACE EXPLORATIONS AND ANALYSES

3.10 Soil Borings and Monitoring Wells

In order to further define the degree and extent of soil and groundwater contamination at the site, four soil borings were advanced by a mobile drill rig. Borings were advanced on December 7, 1994, by T&K Drilling of Troy, VT, overseen by ENSA personnel. Groundwater monitoring wells were installed in the boreholes. Well locations are shown on the groundwater potentiometric map presented in Appendix B of this report.

3.20 Field Screening of Soil Samples

During drilling, split-spoon soil samples were obtained at five-foot intervals from each of the boreholes. The samples were field screened for VOCs with a Thermo Environmental Instruments Model 580B Organic Vapor Meter (OVM), field calibrated to 250 parts per million (ppm) of an Isobutylene span gas. Results of sample headspace screening were 0.0 for all samples.

Site soils consisted of coarse-grained to silty sands. More detailed soil descriptions are included with the Soil Boring/Monitoring Well Construction Logs presented in Appendix C of this report.

3.30 Laboratory Analysis of Site Groundwater and Drinking Water

Groundwater sampling was conducted on December 15, 1994. After removal of three well volumes of groundwater from each of the wells, samples were collected for laboratory analysis of Aromatic VOCs. All samples were refrigerated and sent to Alpha Analytical Laboratories in Westborough, Massachusetts for analysis by EPA Method 8020. No contaminants tested for were detected in any of the samples.

A sample was obtained from the site drinking water well on February 28, 1995. The sample was analyzed by EPA Method 8020. No contaminants tested for were detected.

Complete laboratory reports are presented in Appendix D of this report.

3.40 Groundwater Levels and Flow Direction

On December 15, 1994, the site monitoring wells and other pertinent features were surveyed, and groundwater levels were gauged. Depth to groundwater was measured at each well using a Solinst Model 101 electronic water level indicator accurate to 0.01 foot. Depth to groundwater ranged from 6.87 feet below the PVC well head in DFD-2 to 10.02 feet in DFD-4. Based on these data, groundwater flow direction at the site was determined to be to the southeast, toward Dover Road. Groundwater potentiometric data and map are presented in Table 1 and Appendix B.

Table 1. Groundwater potentiometric data. Elevations in feet from an arbitrary datum.

Date		DFD-1	DFD-2	DFD-3	DFD-4
12/15/94	Elevation of Top of PVC	99.44	99.24	99.59	99.00
	Depth to groundwater (feet from top of PVC)	6.87	8.41	9.24	10.02
	Groundwater elevation	92.59	90.83	90.35	88.98

4.00 RISK EVALUATION

4.10 Potential Sources

The former fuel oil UST at the site is the only known probable source of contamination detected during the tank removal.

4.20 Potential Receptors

The potential sensitive receptor of most immediate concern is the drinking water well near the southeast corner of the property. That well is located approximately 50 feet southeast (downgradient) of the former UST location.

The nearest environmental receptor is the Rock River, located approximately 60 feet southeast of the former UST location.

5.00 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations generated in this report are based solely on information obtained during the course of this investigation. Changes in site conditions, or new information not available for review at the time of this investigation, may necessitate an update of conclusions and recommendations presented in this report.

5.10 Conclusions

- Due to snow cover, the cubic yard of stockpiled soils from the UST removal in July 1994 was inaccessible during this investigation.

- Sample headspace screening revealed no soil contamination in the borings advanced on December 7, 1994.
- No contaminants tested for were detected in groundwater samples from the monitoring wells installed on December 7, 1994. The samples were analyzed by EPA Method 8020.
- The site drinking water was sampled and analyzed by EPA Method 8020. No contaminants tested for were detected. The well is located approximately 50 feet southeast (downgradient) of the former UST location.
- Groundwater flow direction at the site was determined to be to the southeast, toward Dover Road.

5.20 Recommendations

Due to the relative location of the contamination detected during the UST removal and the on-site drinking water well, ENSA Environmental, Inc. recommends that samples from the drinking water and groundwater monitoring wells be obtained and analyzed by EPA Method 8020 on a semiannual basis for one year, beginning in March 1995. If all samples are free of contamination in March and August, 1995, then a Site Management Activity Completed (SMAC) designation will be appropriate at that time (assuming stockpiled soils have been adequately treated by then).

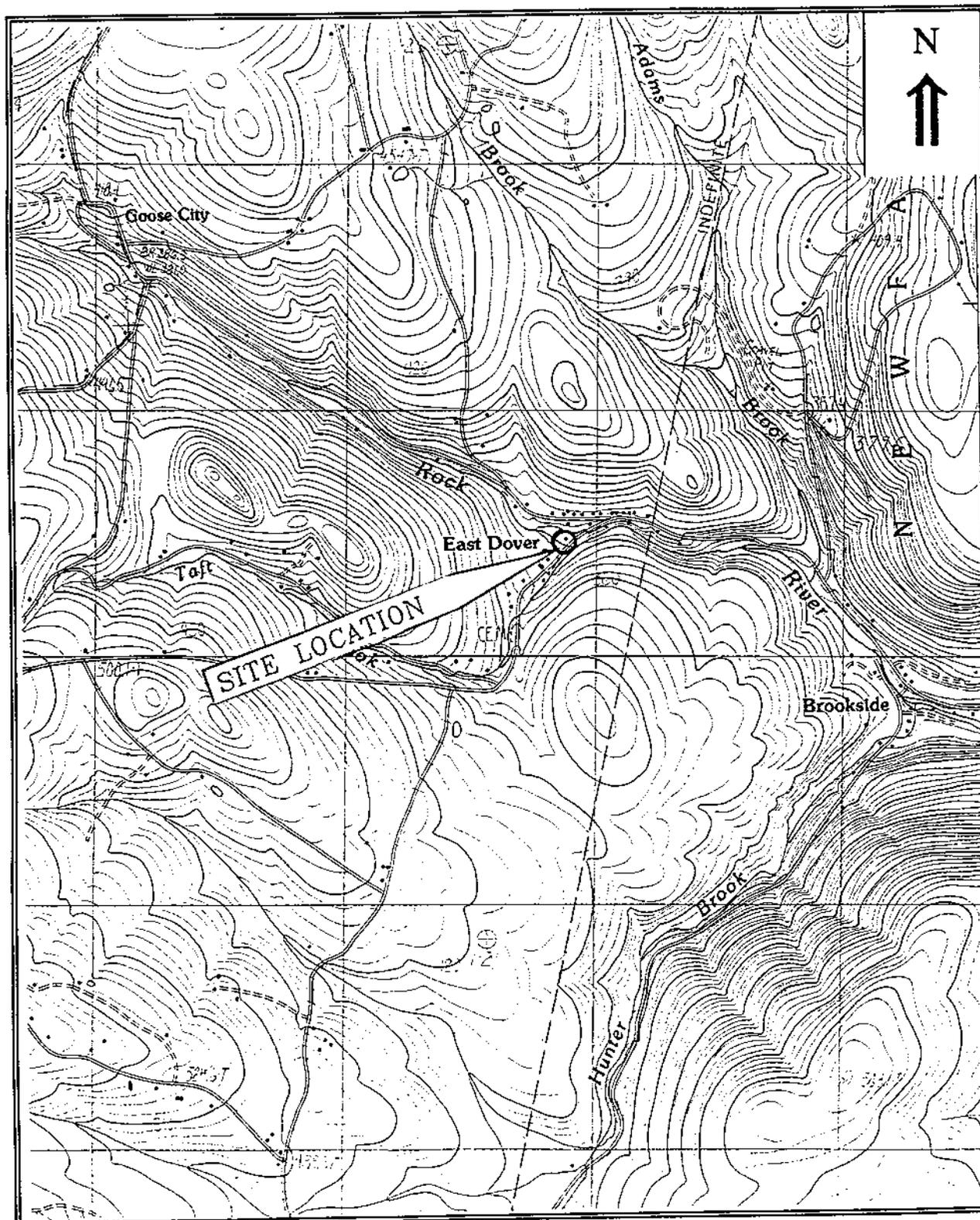
Our recommendation regarding the stockpiled soils is that they be screened with a PID as soon as temperatures allow. A recommendation about the treatment and/or monitoring of this soil, based on the results of sample headspace screening, will be made in the Spring

Approved by [Signature] 3/15/95 [Signature] [Signature]

TE/DAW [Signature]

498\summary.rep

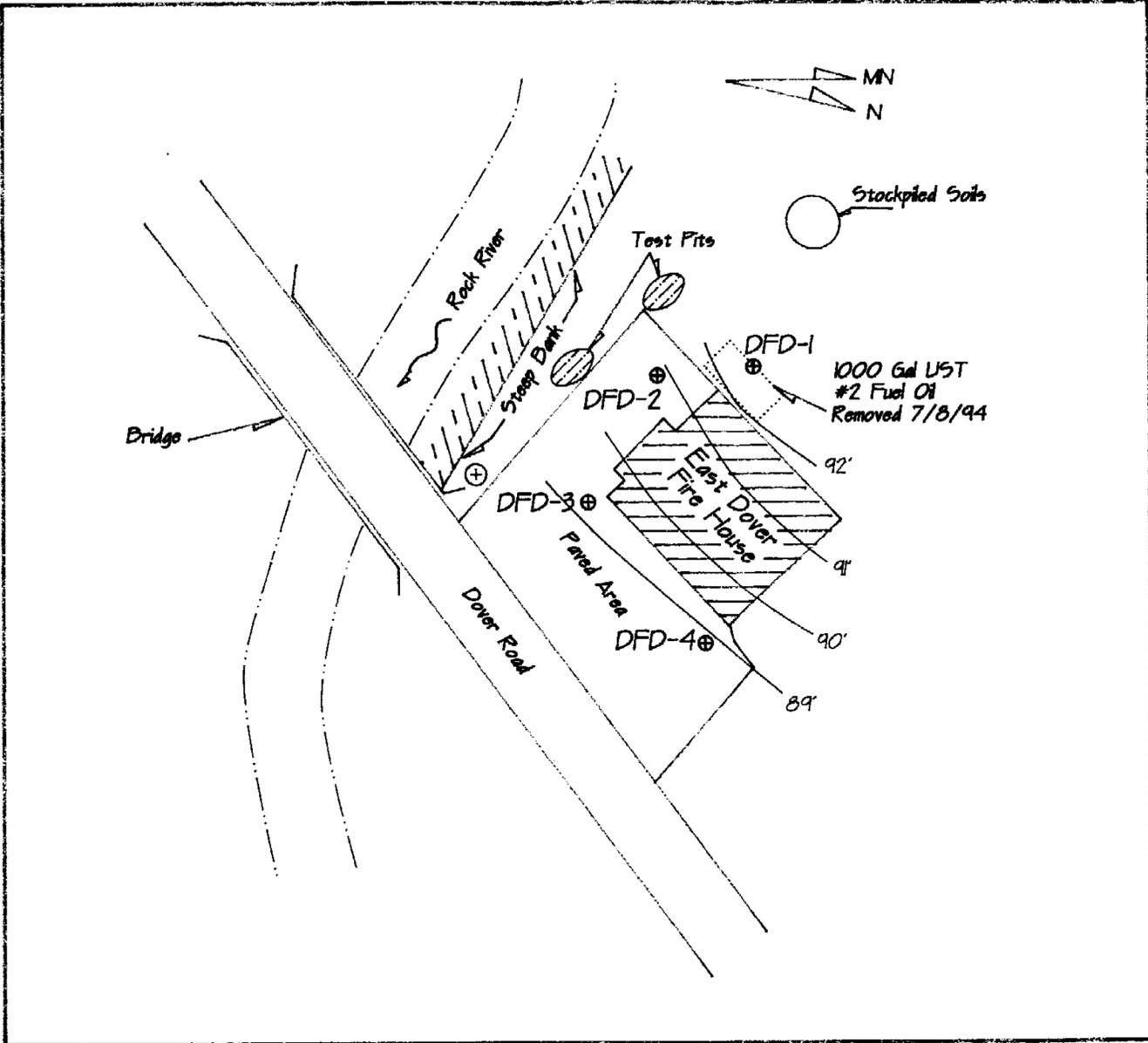
APPENDIX A
SITE LOCUS MAP



Site Locus Scale 1:24,000	USGS Topographic Map West Dover Quadrangle Vermont-Windham Co. Provisional Edition 1986	East Dover Volunteer Fire Company Dover Road East Dover, Vermont
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APPENDIX B

GROUNDWATER POTENTIOMETRIC MAP



GROUNDWATER POTENTIOMETRIC MAP FOR 12/15/94

E. DOVER VOLUNTEER FIRE COMPANY
DOVER ROAD
EAST DOVER, VERMONT

LEGEND

- DFD-2 ⊙ MONITORING WELL
- 90' - GROUNDWATER CONTOUR
- - - RIVER BANK
- ⊕ DRINKING WATER WELL

MONITORING WELL GROUNDWATER ELEVATION (IN FEET)	
DFD-1	92.57
DFD-2	90.83
DFD-3	90.35
DFD-4	88.98

ARTIFICIAL DATUM: WELL TOP DFD-3 = 100 FEET

SCALE 1 : 360

0 25 50 75 FEET

PREPARED BY:
ENSA ENVIRONMENTAL
P.O. BOX 1760, 225 MAIN STREET
BRATTLEBORO, VERMONT 05302

APPENDIX C

WELL BORING/MONITORING WELL CONSTRUCTION LOGS

ENSA ENVIRONMENTAL, INC.
SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Project #: 498 Date: 12-7-94
 Project Name: East Dover Volunteer Fire Co.
 Location: East Dover, VT
 Driller: T&K Drilling, Troy, NH
 ENSA Personnel: MJM
 Boring/Well #: DFD-2 Sheet 1 of 1

SITE LOCUS

See Appendix B.

Depth (feet)	Blow Counts				Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
	0-6	6-12	12-18	18-24				
0-2	grab	sample			n/a	0.0	Medium-grained, brown sand with some cobbles	<p style="text-align: center;">Native backfill Bentonite (1') ↑ Grade 1 Sand ↓</p>
5-7	2	2	2	2	12	0.0	Fine-grained brown sand	
10-12	17	26	22	22	7	0.0	0-3" fine-grained gray sand 3-7" gray, fractured shale	

Drilling Method: HSA Screen Diameter: 2" Length: 10'
 Total Well Depth: 13.5' Riser Diameter: 2" Length: 3.5'
 Groundwater Depth: _____ Slot Size: 0.010"
 PVC Elevation: _____ Ground Elevation: _____

- Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Thermo Environmental Instruments Inc. Organic Vapor Meter Model 580B.
 2. ND indicates nondetectable contaminant concentrations as read by the OVM.
 3. Samples are collected using a Split Spoon Sampler unless otherwise indicated.
 4. Split Spoon Sampler has a 2" diameter and is driven using a 140 lb. hammer falling 30 inches.
 5. HSA = Hollow Stem Auger, AR = Air Rotary

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED 11 03 1995

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

Laboratory Sample Number: L9410409-05
 DFD-02-121594-498
 Sample Matrix: WATER

Date Collected: 15-DEC-94
 Date Received : 16-DEC-94
 Date Reported : 30-DEC-94

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	23-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ENSA ENVIRONMENTAL, INC.
SOIL BORING/MONITORING WELL CONSTRUCTION LOG

Project #: <u>498</u> Date: <u>12-7-94</u> Project Name: <u>East Dover Volunteer Fire Co.</u> Location: <u>East Dover, VT</u> Driller: <u>T&K Drilling, Troy, NH</u> ENSA Personnel: <u>MJM</u> Boring/Well #: <u>DFD-4</u> Sheet <u>1</u> of <u>1</u>	SITE LOCUS <i>See Appendix B.</i>
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Depth (feet)	Blow Counts				Rec. (in.)	OVM (ppm)	Soil Characterization	As Built Diagram
	0-6	6-12	12-18	18-24				
0-2	grab	sample			n/a	0.0	Medium-grained, brown sand	
5-7	2	2	2	3	0	n/a		
10-12	4	16	33	31	12	0.0	0-3" medium-grained gray sand 3-6" very coarse-grained sand and cobbles 6-12" brown, very coarse-grained sand with cobbles	
15-17					5	0.0	0-2" medium-grained gray sand 2-5" fine-grained, silt/clay layer; green-gray in color	

Drilling Method: <u>HSA</u> Total Well Depth: <u>15'</u> Groundwater Depth: _____ PVC Elevation: _____	Screen Diameter: <u>2"</u> Length: <u>10'</u> Riser Diameter: <u>2"</u> Length: <u>5'</u> Slot Size: <u>0.010"</u> Ground Elevation: _____
---	---

- Notes:
1. Split spoon soil samples are screened for organic vapors via headspace method using a Thermo Environmental Instruments Inc. Organic Vapor Meter Model 580B.
 2. ND indicates nondetectable contaminant concentrations as read by the OVM.
 3. Samples are collected using a Split Spoon Sampler unless otherwise indicated.
 4. Split Spoon Sampler has a 2" diameter and is driven using a 140 lb. hammer falling 30 inches.
 5. HSA = Hollow Stem Auger, AR = Air Rotary

APPENDIX D
LABORATORY RESULTS

ALPHA ANALYTICAL LABORATORIES

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

RECEIVED JAN 03 1995

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

CERTIFICATE OF ANALYSIS

Client: ENSA Environmental, Inc.

Laboratory Job Number: L9410409

Address: 205 Main Street; 3rd Floor

Invoice Number: 69895

Brattleboro, VT 05301

Date Received: 16-DEC-94

Attn: David Gagnon

Date Reported: 30-DEC-94

Project Number: 498

Delivery Method: Alpha

Site: E. Dover Fire Department

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9410409-01	DFD-1-121594-498	
L9410409-02	DFD-2-121594-498	
L9410409-03	DFD-3-121594-498	
L9410409-04	DFD-4-121594-498	
L9410409-05	DFD-02-121594-498	
L9410409-06	DFD-01-121594-498	

Authorized by: James R. Roth

James R. Roth, PhD - Laboratory Manager

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED JAN 03 1995

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

Laboratory Sample Number: L9410409-01 Date Collected: 15-DEC-94
 DFD-1-121594-498 Date Received : 16-DEC-94
 Sample Matrix: WATER Date Reported : 30-DEC-94
 Condition of Sample: Satisfactory Field Prep: None

Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	23-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED JAN 03 1995

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

Laboratory Sample Number: L9410409-02 Date Collected: 15-DEC-94
 DFD-2-121594-498 Date Received : 16-DEC-94
 Sample Matrix: WATER Date Reported : 30-DEC-94
 Condition of Sample: Satisfactory Field Prep: None
 Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	23-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED JAN 03 1995

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

Laboratory Sample Number: L9410409-03
 DFD-3-121594-498
 Sample Matrix: WATER

Date Collected: 15-DEC-94
 Date Received : 16-DEC-94
 Date Reported : 30-DEC-94

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	23-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED JAN 2 1995

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

Laboratory Sample Number: L9410409-04 Date Collected: 15-DEC-94
 DFD-4-121594-498 Date Received : 16-DEC-94
 Sample Matrix: WATER Date Reported : 30-DEC-94
 Condition of Sample: Satisfactory Field Prep: None

Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	23-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED 11 03 1995

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

Laboratory Sample Number: L9410409-05
 DFD-02-121594-498
 Sample Matrix: WATER

Date Collected: 15-DEC-94
 Date Received : 16-DEC-94
 Date Reported : 30-DEC-94

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	23-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

RECEIVED JAN 03 1995

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

Laboratory Sample Number: L9410409-06 Date Collected: 15-DEC-94
 DFD-01-121594-498 Date Received : 16-DEC-94
 Sample Matrix: WATER Date Reported : 30-DEC-94
 Condition of Sample: Satisfactory Field Prep: None
 Number & Type of Containers: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	28-Dec
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE MS/MSD ANALYSIS

RECEIVED JAN 8 2 1994

Laboratory Job Number: L9410409

Parameter	MS %	MSD %	RPD
Volatile Organics Spike Recovery by GC MS/MSD for sample(s) 01-06			
1,1-Dichloroethene	91	91	0
Trichloroethene	94	96	2
Chlorobenzene	101	102	1
Benzene	94	98	4
Toluene	94	96	2
Ethylbenzene	93	96	3

RECEIVED JAN 03 1985

REFERENCES

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

GLOSSARY OF TERMS AND SYMBOLS

- < Indicates analyte not detected at stated value, i.e. Reporting Detection Limit.
- REF Reference number in which test method may be found.
- METHOD Method number by which analysis was performed.

69895

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 1 of _____

Company Name: ENSA ENVIRONMENTAL, INC.

Project Number: 498

Project Name/Location:
E. Dover Fire Department

Date Received in Lab: 12/16

Date Due: 12/30

Company Address:
205 MAIN STREET
BRATTLEBORO, VT

Phone Number:
1-802-254-3677

Project Manager:
David Gagnon

Alpha Job Number: (Lab use only)

9410409

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)

Unpres.	Ice	Nitric	Sulfuric	HCl	Other

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 _____

Analysis Requested

ALPHA Lab #	Sample I.D.	Containers	Matrix / Source	Method Preserve.	Solubles - F.F.	Sampling Date	Sampling Time	Analysis Requested
10409.1	DFD-1-121594-498	(2/U)	MW			12/15	3:04	8020
2	DFD-2-121594-498	(2/U)	MW			" "	3:05	" "
3	DFD-3-121594-498	(2/U)	MW			" "	3:08	" "
4	DFD-4-121594-498	(2/U)	MW			" "	3:12	" "
5	DFD-02-121594-498	(2/U)	MW			" "	3:06	" "
6	DFD-01-121594-498	(1/U)	MW			" "	3:00	" "

Sampler's Signature: David C. Balda Affiliation: ENSA Date: 12/15/01 Time: 5:00

ADDITIONAL COMMENTS:
1 Duplicate
1 Trip Blank

NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	<u>[Signature]</u>	<u>[Signature]</u>	12/16	12:50
2	<u>[Signature]</u>	<u>[Signature]</u>	12/16	5:00
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: ENSA Environmental, Inc.

Laboratory Job Number: L9501561

Address: 205 Main Street; 3rd Floor

Invoice Number: 71649

Brattleboro, VT 05301

Date Received: 01-MAR-95

Attn: Susan Chaffee

Date Reported: 03-MAR-95

Project Number: 498

Delivery Method: Alpha

Site: E. Dover Fire Dept.

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9501561-01	DW1-122895-498	East Dover, VT
L9501561-02	DW10-122895-498	East Dover, VT

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: L9501561-01
 DWJ-122895-498
 Sample Matrix: WATER

Date Collected: 28-FEB-95
 Date Received : 01-MAR-95
 Date Reported : 03-MAR-95

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	02-Mar
Benzene	ND	ug/l	0.20			
Toluene	ND	ug/l	0.20			
Ethylbenzene	ND	ug/l	0.20			
Xylenes	ND	ug/l	0.20			
1,2-Dichlorobenzene	ND	ug/l	0.20			
1,3-Dichlorobenzene	ND	ug/l	0.20			
1,4-Dichlorobenzene	ND	ug/l	0.20			
Chlorobenzene	ND	ug/l	0.20			
Methyl tert butyl ether	ND	ug/l	0.20			

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: L9501561-02
 DW10-122895-498
 Sample Matrix: WATER

Date Collected: 28-FEB-95
 Date Received : 01-MAR-95
 Date Reported : 03-MAR-95

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP ANALYSIS
Aromatic Volatile Organics				1	8020	02-Mar
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Xylenes	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	1.0			
1,3-Dichlorobenzene	ND	ug/l	1.0			
1,4-Dichlorobenzene	ND	ug/l	1.0			
Chlorobenzene	ND	ug/l	1.0			
Methyl tert butyl ether	ND	ug/l	1.0			

Comments: Complete list of References and Glossary of Terms found in Addendum 2

REFERENCES

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

GLOSSARY OF TERMS AND SYMBOLS

< Indicates analyte not detected at stated value, i.e. Reporting Detection Limit.

REF Reference number in which test method may be found.

METHOD Method number by which analysis was performed.

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 1 of 1

Company Name:
ENSA Environmental Inc

Project Number: 498
P.O. Number: 2930

Project Name/Location:
E. DORR FIRE Dept.
EAST DORR, VERMONT

Date Received in Lab: 3/1
Date Due: RUSH
3/3

Company Address:
P.O. Box 1760, 205 MAIN ST
BROTTINGTON VT. 05302

Phone Number: 802
254-3677
FAX No.:

Project Manager:
S. CHAFFEE

Alpha Job Number: (Lab use only)
9501561

MATRIX / SOURCE CODES

MW = Monitoring Well RO = Runoff O = Outfall W = Well LF = Landfill
 L = Lake/Pond/Coosen I = Influent E = Effluent DW = Drinking Water
 R = River Stream S = Soil SG = Sludge G = Bottom Sediment

X1 = Other _____ X2 = Other _____

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	
<u>1561</u>	<u>DW1-122895-498</u>	<u>2 ✓</u>	<u>DW</u>					<u>X</u>		<u>2/28</u>	<u>10 AM</u>	<u>8020</u>	
<u>2</u>	<u>DW01-122895-498</u>	<u>1 ✓</u>	<u>DW</u>					<u>X</u>		<u>2/28</u>	<u>10 AM</u>	<u>8020</u>	
								<u>X</u>		<u>2/28</u>	<u>10 AM</u>		

Signature: [Signature]
 Attribution: ENSA
 Date: 12/78
 Time: 10:50

ADDITIONAL COMMENTS:

- TRIP BLANK INCLUDED
- 48 HOUR TURNAROUND

NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	
<u>1</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>3-1-95</u>	<u>2</u>
<u>2</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>3-1-95</u>	<u>5</u>
<u>3</u>				
<u>4</u>				