



ENVIRONMENTAL COMPLIANCE SERVICES, INC.

WASTE MANAGEMENT
MAY 19 10 13 AM '99

May 17, 1999
Project #40116.30
Document:
Site_inv.599

Richard Youngman
Dummerston Management
C/O Stow Mills
PO Box 301
Chesterfield, NH 03443-0301

**RE: Site Investigation Report
Former After the Fall, East Dummerston, VT
DEC Site #98-2523**

Dear Mr. Youngman:

Enclosed please find the above-referenced report for your review. Once your review is complete, please sign and forward a copy of the approval form to our office. Upon receipt of this signed approval we will submit the report to Mr. Gerold Noyes at the VT DEC. If you have any questions or require further information, please call me at 802-257-1195.

Sincerely,
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

Bruce Tease, Ph.D.
Senior Project Manager/ Scientist

DCB

enclosure

~~Gerold Noyes, DEC, W/DASMS~~
W/O enclosure



ENVIRONMENTAL COMPLIANCE SERVICES, INC.

May 17, 1999

CLIENT

Richard Youngman
Dummerston Management
Brattleboro, VT 05301

JOB #

40116.30

TITLE & DATE OF REPORT

"Site Investigation Report," Former After the Fall, Putney Road, Brattleboro, VT
SMS Site #98-2523

May 17, 1999

I have read the above-referenced report and hereby authorize Environmental Compliance Services, Inc. to distribute it to:

VT DEC Waste Management Division
Sites Management Section
103 South Main Street/West Bldg.
Waterbury, VT 05671-0404

CLIENT SIGNATURE

DATE

/40116.30/approval.frm

Phase	Type
<input checked="" type="checkbox"/> Initial Site Investigation <input type="checkbox"/> Corrective Action Feasibility Investigation <input type="checkbox"/> Corrective Action Plan <input type="checkbox"/> Corrective Action Summary Report <input type="checkbox"/> Operations and Monitoring Report	<input type="checkbox"/> Work Scope <input checked="" type="checkbox"/> Technical Report <input type="checkbox"/> PCF Reimbursement Request <input type="checkbox"/> General Correspondence

Site Investigation Report
 Former After the Fall
 Putney Road
 East Dummerston, Vermont
 SMS Site #98-2523

Prepared for:

Dummerston Management
 Brattleboro, Vermont 05301
 Contact: Richard Youngman
 Phone: (603) 256-3000

Prepared by:

Environmental Compliance Services, Inc.
 157 Old Guilford Road #6
 Brattleboro, VT 05301
 Contact: Bruce Tease, Ph.D.
 Phone: (802) 257-1195

Project No.: 40116.30

May 17, 1999

Site Investigation Report
Former After the Fall Site, East Dummerston
Site #98-2523

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1.0 INTRODUCTION

On November 3, 1998 a 1,000 gallon #2 fuel oil underground storage tank (UST) was removed from the east side of the Former After the Fall Building ("the site;" see locus map, Appendix A). Soils from the tank excavation were screened with a Photovac Model 2020 photoionization detector (PID) for the presence of Volatile Organic Compound (VOC) concentrations. The levels of contamination ranged from 0 to 60 parts per million (ppm). A tank closure report was submitted to the VT DEC, and resulted in the request for subsurface investigations to assess the extent and degree of petroleum contamination in soil and/or groundwater at the site. As a previous Phase I investigation had been performed, four monitoring wells had been installed at the site on October 15, 1998.

Environmental Compliance Services, Inc. of Brattleboro, VT submitted a work plan for additional sampling and investigation of the septic tank and floor drains to the VT DEC on behalf of Richard Youngman of Dummerston Management. The work plan included groundwater sampling and analysis, investigation and sampling of the onsite septic tank, and an investigation of the floor drain discharge. The plan was approved by the Sites Management Section (SMS) on January 6, 1999.

This report documents the work performed by ECS at the site and presents results, conclusions and recommendations.

2.0 SITE DESCRIPTION

The subject property exists at an elevation of approximately 276 feet above mean sea level. The Former After the Fall property consists of two buildings. The main building is a two story, steel building with a concrete floor with no basement. The other site building is a two-story wooden barn-like structure, with a concrete slab foundation with no basement. The site is bordered to the south by commercial development, namely Dewitt Beverage and Leader Distribution Systems, Inc., and to the east, north, and west by woods, fields, and wetlands, respectively. The wetland area to the west has an intermittent stream which runs southerly to the Connecticut River located approximately 4,000 feet from the subject property. Drinking water is supplied to the site from a well located topographically upgradient of the UST grave, approximately 120 feet away.

Observations made during the removal of the fuel oil UST in November 3, 1998 indicated that the soils in the tank pit were brown, silt and sand 10 feet below ground surface (bgs). A one foot layer of gravel and cobbles was located 10 feet bgs with silt and clay from 11 feet bgs to the maximum depth of the test pit (15 feet). Groundwater nor ledge were encountered in the test pits.

3.0 WORK PERFORMED

3.1 SOIL BORINGS AND MONITORING WELLS

ECS installed three monitoring wells, designated ECS-1, ECS-2, and ECS-3 using a hollow stem auger drill rig on October 15, 1998. An additional monitoring well was installed in the wetland area using a hand auger. Monitoring well locations are shown on the site plan in Appendix B. Wells ECS-1, ECS-2, and ECS-3 are approximately 28 feet deep, and constructed of 2-inch diameter schedule 40 PVC slotted screen (size 10) with flush mounted road boxes. Monitoring well ECS-4 was installed to four feet bgs, with approximately 2 feet of exposed 2 inch diameter schedule 40 PVC pipe.

3.2 FIELD SCREENING OF SOIL SAMPLES

Split-spoon soil samples were obtained at five-foot intervals from each of the boreholes. The samples were field screened for VOCs with a PID (field calibrated to an isobutylene span gas and referenced to benzene), using bag headspace protocol. VOC levels ranging from 0.0 to 0.6 ppm were detected in the borings samples.

3.3 GROUNDWATER GAUGING AND SAMPLING

On October 19, 1998, depth to groundwater was measured from the top of the PVC well casings at monitoring wells ECS-1, ECS-2, ECS-3, and ECS-4 by ECS personnel using a Slope electronic water level indicator accurate to 0.01 foot.

Groundwater samples were collected from monitoring wells ECS-2 and ECS-4 on October 19, 1998. Samples were obtained after three bore hole volumes of groundwater were evacuated from each well using disposable plastic bailers. The two samples were analyzed for VOCs by EPA Method 8260 and Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M. A duplicate groundwater sample from ECS-4 was obtained for quality control purposes. All samples were stored on ice immediately upon collection, and refrigerated until delivery was made to Spectrum Analytical, Inc. in Agawam, Massachusetts. A trip blank and the duplicate sample were analyzed for VOCs by EPA Method 8260.

Groundwater from all the monitoring wells were sampled on April 21, 1999, using the same procedures as described above. The samples were submitted for analysis of BTEX compounds, MTBE, Trimethylbenzenes and Naphthalene by EPA Method 8021B and Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M.

3.4 SEPTIC SAMPLING/FLOOR DRAIN INVESTIGATION

On April 21, 1999, the on site septic tank was exposed via excavation by Rocky LaRock of Bernie LaRock and Son, Inc., of Brattleboro, VT. ECS personnel removed 4 x 4 wood planks to access the septic tank and collected a sample. The septic tank was constructed of concrete block with a divider separating the south end (inlet) from the north end (outlet). Two discharge pipes were observed in the south end of the tank. A third discharge pipe and an overflow pipe was discovered at the north end of the tank.

Rocky LaRock indicated that the inlet pipes on the south end come from the site building and former trailer park area. The two lines on the north end appear to serve two different functions. One pipe appears to be an outlet pipe to the leach field and the other appears to be a possible inlet pipe coming from the floor drains located in the site building.

Investigation of the floor drains and exterior catch basin was conducted during the septic tank inspection. The floor drains interconnect and the discharge exits the building towards the septic tank where the exterior catch basin connects. The pitch of the discharge pipe indicated substantial burial depth (greater than 6 feet) based on hand excavation. Approximately 55 gallons of water was discharged into the floor drain to determine the discharge end of the piping. Inspection of the septic tank and a 4-inch diameter pipe exiting the hillside near the wetland area, did not detect a discharge. A sample was collected from the inlet side of the concrete septic tank, using a disposable plastic bailer. The sample was submitted for VOCs via EPA Method 8260.

4.0 RESULTS

4.1 GROUNDWATER POTENTIOMETRIC DATA

Data from the October 19, 1998 and April 21, 1999 gauging events of groundwater levels are presented in Table 1. Depth to groundwater ranged from 2.35 feet at ECS-4 to 23.40 feet in ECS-2.

Table 1. Groundwater potentiometric data.

Date	ECS-1	ECS-2	ECS-3	ECS-4
<i>PVC elevation</i>	<i>99.46</i>	<i>99.32</i>	<i>99.59</i>	<i>NA</i>
4/21/99	80.82	76.49	80.23	NA
10/19/98	77.78	73.46	75.91	NA
<i>Elevations measured in feet from an arbitrary datum.</i>				
<i>NA =well was not surveyed</i>				

Groundwater contours were added to the site plan presented in Appendix B. The map shows that the groundwater table flow direction trends to the south in the direction of the Connecticut River.

4.2 LABORATORY ANALYSIS OF GROUNDWATER SAMPLES

The groundwater samples results obtained from the October 19, 1998 and April 21, 1999 sampling events are presented in Table 2, which includes Primary Groundwater Quality Standards (PGQS) for reference. The complete laboratory data sheets and chain of custody records are presented in Appendix C.

Table 2. Results of laboratory analysis of groundwater samples in ug/l (ppb)										
Date	Compound	PGQS	ECS-1	ECS-2 / DUP	ECS-3	ECS-4 / DUP	SEPTIC / DUP			
4/21/99	Benzene	5	NS	ND	ND	ND	ND	NA	ND	ND
	Toluene	1,000	NS	ND	ND	ND	ND	NA	1,000	950
	Ethylbenzene	7000	NS	ND	ND	ND	ND	NA	2.2	2.2
	Xylenes	10,000	NS	ND	ND	ND	ND	NA	10.3	10
	Total BTEX	NA	NA	NA	NA	NA	NA	NA	1,012.5	962.2
	n-Butylbenzene	NA	NS	NS	NS	NS	NS	NA	2	2
	Sec-Butylbenzene	NA	NS	NS	NS	NS	NS	NA	ND	1.1
	1,4-Dichlorobenzene	75	NS	NS	NS	NS	NS	NA	28	26
	4-Isopropyltoluene	NA	NS	NS	NS	NS	NS	NA	17	18
	Naphthalene	20	NS	ND	ND	ND	ND	NA	2.1	2.1
	n-Propylbenzene	NA	NS	NS	NS	NS	NS	NA	1.2	1.2
	1,2,4-Trimethylbenzene	5	NS	ND	ND	ND	ND	NA	8.9	8.7
	1,3,5-Trimethylbenzene	4	NS	ND	ND	ND	ND	NA	3	2.9
	MTBE	40	NS	ND	ND	ND	ND	NA	ND	ND
TPH	NA	NS	ND	NS	2,500	ND	NA	NS	NS	

EGES #1 #2 #2DUP #3 #4 #4DUP

10/19/98		5	NS	ND	NS	NS	ND	ND	NS	NS
	Benzene	5	NS	ND	NS	NS	ND	ND	NS	NS
	Toluene	1,000	NS	1.4	NS	NS	ND	ND	NS	NS
	Ethylbenzene	7000	NS	1	NS	NS	ND	ND	NS	NS
	Xylenes	10,000	NS	4.4	NS	NS	ND	ND	NS	NS
	Total BTEX	NA	NA	6.8	NA	NA	NA	NA	NA	NA
	Naphthalene	20	NS	ND	NS	NS	ND	ND	NS	NS
	1,2,4-Trimethylbenzene	5	NS	1.2	NS	NS	ND	ND	NS	NS
	1,3,5-Trimethylbenzene	4	NS	ND	NS	NS	ND	ND	NS	NS
	MTBE	40	NS	ND	NS	NS	ND	ND	NS	NS
	TPH	NA	NS	8	NS	NS	0.7	NT	NS	NT

Results reported in ug/L (ppb).
 ND = Not detected.
 NT = Not tested for.
 NS = Not sampled.
 / Dup indicate duplicate analyses.
 Boldface type indicates PGQS exceedances.

5.0 RISK EVALUATION

5.1 POTENTIAL SOURCES

The underground storage tank has been removed from the site. Soils with low levels of petroleum compounds remain in and around the tank grave. The petroleum contamination appeared to be the result of overfills or loose pipe connections. It is reasonably clear that the source of this contamination is related to the fuel oil UST.

During the October 1998 sampling event only low levels of contaminants were detected in the groundwater sample taken from monitoring well ECS-2 located south of the tank grave. Results from the spring sampling event conducted on April 21, 1999 indicated the presence of **2,500 ug/L of TPH** levels at monitoring well **ECS-3, located east of the septic tank.**

PGQS for Toluene and 1,2,4-Trimethylbenzene were exceeded in a sample taken from the septic tank. The contamination detected in the septic tank maybe the result of past discharges from the site building or former trailer connection. The inlet pipe on the discharge side of the septic tank, possibly leading from the floor drains, could have been the source pathway.

5.2 POTENTIAL RECEPTORS

The potential sensitive human receptors of most immediate concern are workers at the Dewitt Beverage Company to the south, which is approximately 400 feet away from the tank grave. There are no residential properties located downgradient of the site. The wetland area and stream to the west is the closest potential sensitive environmental receptors topographically downgradient from the tank grave. As the wetland area and stream are topographically downgradient to the west from the tank grave it should be noted that groundwater flow direction has been determined to trend to the south. The drinking water well is located topographically and hydrogeologically upgradient and approximately 120 feet from the tank grave. The Dewitt Beverage Company and Leader Distribution Systems, Inc., drinking water wells are located to the south and within ¼ mile of the site.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

ECS presents the following conclusions based on the information obtained at the site to date:

- Groundwater flow direction at the site can be interpreted to be to the south, in the direction of the Connecticut River and downgradient businesses that utilize groundwater reserves.
- Low levels of contaminants tested for were recently detected in the groundwater monitoring well installed east of the septic tank.
- No chlorinated VOCs were detected in the septic tank sample. PGQS for Toluene and 1,2,4-Trimethylbenzene are exceeded in the sample taken from the septic tank. Impact of surrounding soil and/or groundwater is undetermined.
- The discharge point of the floor drain is considered to be the septic tank based on the layout of piping outlets and inlets. It would appear that the floor drain piping leading to the septic tank has broken, resulting in direct discharge to the ground. This may explain the TPH detected in groundwater collected from ECS-4.
- The probable source of the release, a 1,000 gallon fuel oil UST, has been removed from the site. While residual soil contamination exists in the tank grave, impact to site groundwater above PGQS has not been detected after two rounds of testing.

6.2 RECOMMENDATIONS

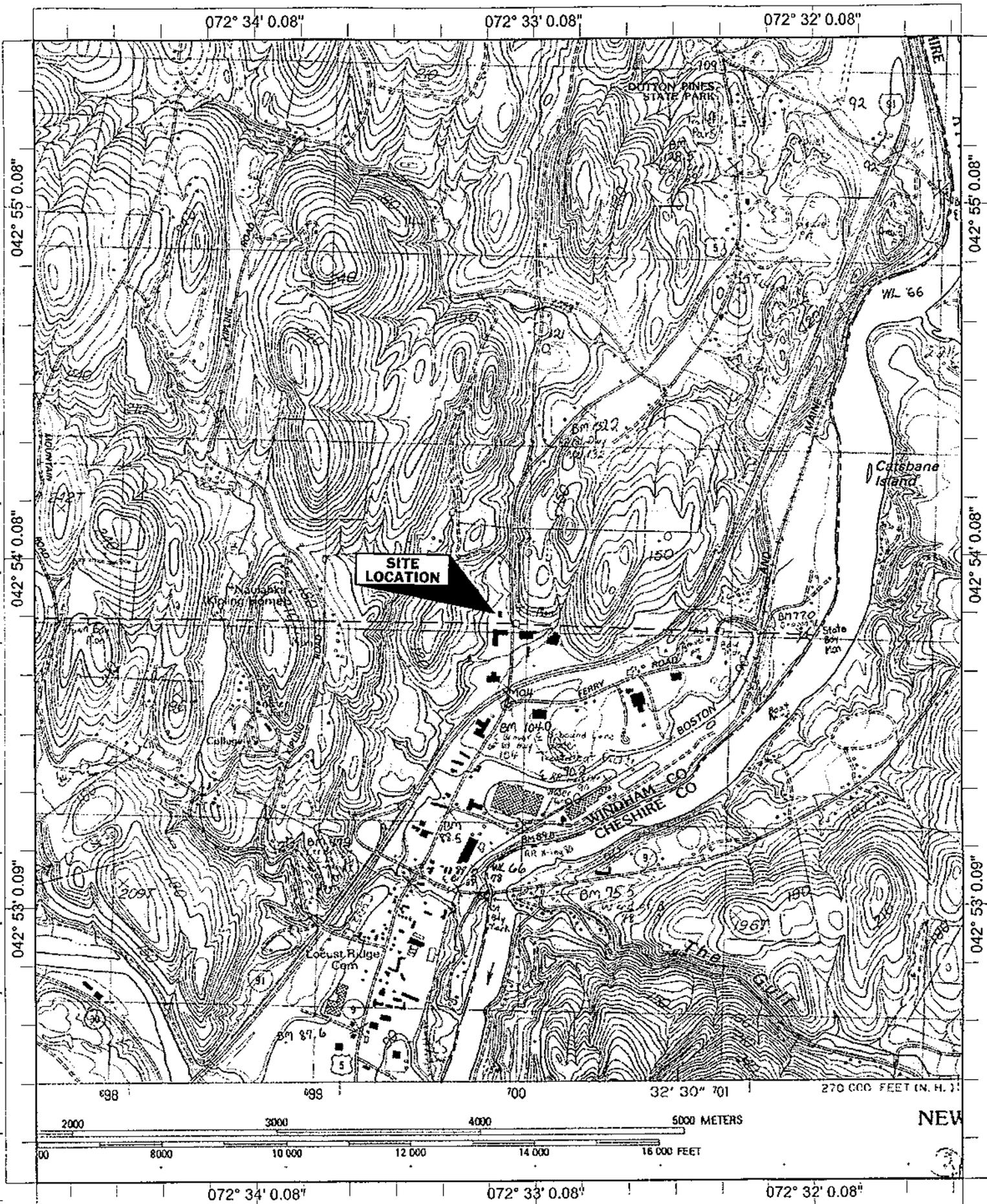
Since groundwater sample results indicate the absence of fuel oil related compounds in site monitoring wells, ECS recommends the UST site be considered a Sites Management Activity Completed (SMAC) designation. NO

Analytical results indicate petroleum related compounds were discharged to the septic system. TPH was detected in ECS-3 located in the vicinity of the northern discharge point in the septic tank and the suspected floor drain pipe path to the tank. ECS recommends the floor drains be sealed in accordance with Vermont Underground Injection Control regulations. The septic tank should be pumped of product and repaired. At this time test pits should be excavated to groundwater immediately north and south of the septic tank. Samples should be collected, filtered and submitted for analysis of VOCs by EPA Method 8260 and TPH by 8015M to assess the potential for historical discharge of petroleum products to groundwater. ✓

put mw- in back fill;
40116.30\Site_inv.599
may be hand installed

Appendix A

Site Locus Map



SITE LOCATION

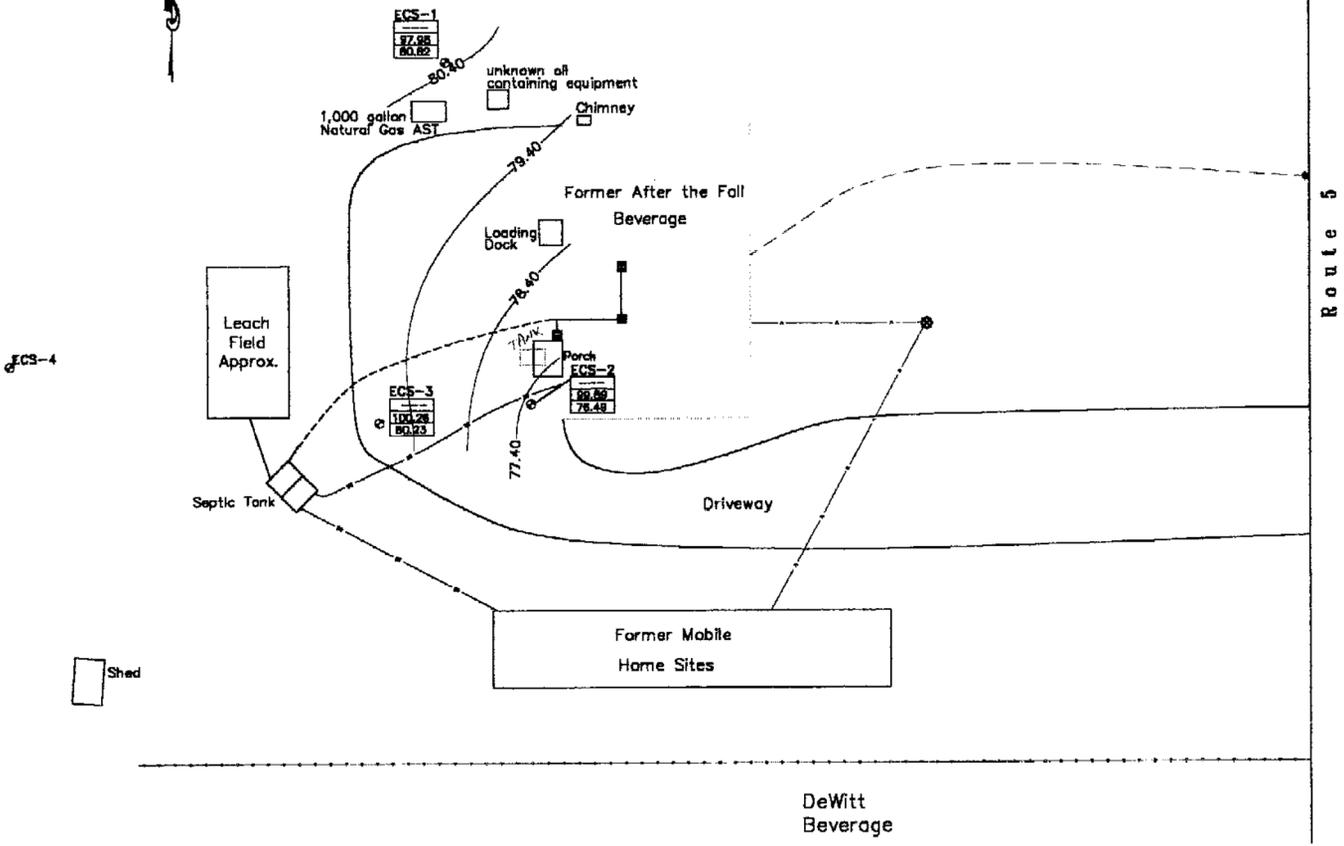
Name: NEWFANE
 Date: 10/16/98
 Scale: 1 inch equals 2000 feet

Location: 042° 53' 50.7" N 072° 33' 07.7" W
 Caption: Fmr. After the Fall Property
 Putney Road
 Dummerston, VT 05346

Appendix B

Site Plan

North



Legend

- Approximate Property Line
- Sanitary Sewer Line
- Water Line
- Underground Electric Line
- Fence Line
- Floor Drains
- ⊗ Drilled Drinking Water Well
- ⊕ Utility Pole
- ⊙ Monitoring Well
- ECS-1 Well I.D.
87.88 Rim Elevation
80.82 PVC Elevation
Water Table Elevation
- Water Table Contour (Dashed where Inferred)
- Former Fuel Oil UST

General Notes:

Site plan prepared from site survey and measurements made by ECS, Inc. personnel and site information provided by the site owner.

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

Horizontal, and vertical locations of wells, and selected site features determined through measurements made by ECS personnel.

Water table elevations are based on measurements made on 4/21/99.

Water table contours, and flow directions assume homogenous, isotropic aquifer conditions, and horizontal flow.

Fluctuations in the level of the water table may occur due to factors not accounted for at the time of measurement.

Water table contours are interpolated between data points, and inferred in other areas.



ENVIRONMENTAL COMPLIANCE SERVICES, INC.
157 Old Guilford Road, #6, Brattleboro, VT

PROJECT:
Former After the Fall Facility
Route 5
Dummerston, VT

TITLE:
Groundwater Potentiometric Map; 4/21/99

CLIENT:
Richard Youngman

GRAPHIC SCALE:
0 25 50 75 100
Feet

DATE: 4/21/99

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
CS	CS	RET	DCB

SCALE	DATE	JOB NO.	FIGURE NO.
1" = 30'	May 1999	40116.30	2

Appendix C

Laboratory Data Sheets and Chain of Custody Record



SPECTRUM ANALYTICAL, INC.

Massachusetts Certification M-MA 138
Connecticut Approval # PH 0777
Rhode Island # 98 & Maine # n/a
New Hampshire ID # 2538
New York ID #11393
Florida HRS87448

RECEIVED MAY 10 1999

ECS, Inc.
157 Old Guilford Road, #6
Brattleboro, VT 05301

May 6, 1999

Attn: Bruce Tease

Client Project No.: 40116.30 Location: After the Fall-Dummerston, VT

<u>Lab ID No.</u>	<u>Client ID</u>	<u>Analysis Requested</u>
AB41098	SEPTIC	SW846 Method 8260
AB41099	SEP-DUP	SW846 Method 8260
AB41100	ECS-2	TPH Modified SW846 8015 EPA Method 8021B
AB41101	ECS-3	TPH Modified SW846 8015 EPA Method 8021B
AB41102	ECS-4	TPH Modified SW846 8015 EPA Method 8021B
AB41103	ECS-DUP	EPA Method 8021B
AB41104	TRIP8021	EPA Method 8021B
AB41105	TRIP8260	SW846 Method 8260

Authorized by

Hanibal Tayeh
President/Laboratory Director

ENVIRONMENTAL ANALYSES

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: SEPTIC
Lab ID No: AB41098

Location: After the Fall-Dummerston, VT
Client Job No.: 40116.30

Matrix: Waste Water
Sampled on 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration, HCl
Container : 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8260

Parameter for AB41098	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	CH
Bromobenzene	Not detected	1.0	05/05/99	CH
Bromochloromethane	Not detected	1.0	05/05/99	CH
Bromodichloromethane	Not detected	1.0	05/05/99	CH
Bromoform	Not detected	1.0	05/05/99	CH
Bromomethane	Not detected	1.0	05/05/99	CH
n-Butylbenzene	2.0	1.0	05/05/99	CH
sec-Butylbenzene	Not detected	1.0	05/05/99	CH
tert-Butylbenzene	Not detected	1.0	05/05/99	CH
Carbon tetrachloride	Not detected	1.0	05/05/99	CH
Chlorobenzene	Not detected	1.0	05/05/99	CH
Chloroethane	Not detected	1.0	05/05/99	CH
Chloroform	Not detected	1.0	05/05/99	CH
Chloromethane	Not detected	1.0	05/05/99	CH
2-Chlorotoluene	Not detected	1.0	05/05/99	CH
4-Chlorotoluene	Not detected	1.0	05/05/99	CH
1,2-Dibromo-3-chloropropane	Not detected	1.0	05/05/99	CH
Dibromochloromethane	Not detected	1.0	05/05/99	CH
1,2-Dibromoethane (EDB)	Not detected	1.0	05/05/99	CH
Dibromomethane	Not detected	1.0	05/05/99	CH
1,2-Dichlorobenzene	Not detected	1.0	05/05/99	CH
1,3-Dichlorobenzene	Not detected	1.0	05/05/99	CH
1,4-Dichlorobenzene	28	1.0	05/05/99	CH
Dichlorodifluoromethane	Not detected	1.0	05/05/99	CH
1,1-Dichloroethane	Not detected	1.0	05/05/99	CH
1,2-Dichloroethane	Not detected	1.0	05/05/99	CH
1,1-Dichloroethene	Not detected	1.0	05/05/99	CH
cis-1,2-Dichloroethene	Not detected	1.0	05/05/99	CH
trans-1,2-Dichloroethene	Not detected	1.0	05/05/99	CH
1,2-Dichloropropane	Not detected	1.0	05/05/99	CH
1,3-Dichloropropane	Not detected	1.0	05/05/99	CH
2,2-Dichloropropane	Not detected	1.0	05/05/99	CH
1,1-Dichloropropene	Not detected	1.0	05/05/99	CH
cis-1,3-Dichloropropene	Not detected	1.0	05/05/99	CH

Volatile Organics
EPA Method 8260

Parameter for AB41098	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	1.0	05/05/99	CH
Ethylbenzene	2.2	1.0	05/05/99	CH
Hexachlorobutadiene	Not detected	1.0	05/05/99	CH
Isopropylbenzene	Not detected	1.0	05/05/99	CH
4-Isopropyltoluene	17	1.0	05/05/99	CH
Methylene chloride	Not detected	1.0	05/05/99	CH
Naphthalene	2.1	1.0	05/05/99	CH
n-Propylbenzene	1.2	1.0	05/05/99	CH
Styrene	Not detected	1.0	05/05/99	CH
1,1,1,2-Tetrachloroethane	Not detected	1.0	05/05/99	CH
1,1,2,2-Tetrachloroethane	Not detected	1.0	05/05/99	CH
Tetrachloroethene	Not detected	1.0	05/05/99	CH
Toluene	1,000	1.0	05/05/99	CH
1,2,3-Trichlorobenzene	Not detected	1.0	05/05/99	CH
1,2,4-Trichlorobenzene	Not detected	1.0	05/05/99	CH
1,1,1-Trichloroethane	Not detected	1.0	05/05/99	CH
1,1,2-Trichloroethane	Not detected	1.0	05/05/99	CH
Trichloroethene	Not detected	1.0	05/05/99	CH
Trichlorofluoromethane	Not detected	1.0	05/05/99	CH
1,2,3-Trichloropropane	Not detected	1.0	05/05/99	CH
1,2,4-Trimethylbenzene	8.9	1.0	05/05/99	CH
1,3,5-Trimethylbenzene	3.0	1.0	05/05/99	CH
m,p-Xylenes	7.1	2.0	05/05/99	CH
o-Xylene	3.2	1.0	05/05/99	CH
Vinyl chloride	Not detected	1.0	05/05/99	CH
Methyl-t-butyl ether	Not detected	1.0	05/05/99	CH
BFB Surrogate Recovery (%)	104		05/05/99	CH
p-DFB Surrogate Recovery (%)	108		05/05/99	CH
CLB-d5 Surrogate Recovery (%)	108		05/05/99	CH

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **SEP-DUP**
 Lab ID No: **AB41099**

Location: **After the Fall-Dummerston, VT**
 Client Job No.: **40116.30**

Matrix: **Waste Water**
 Sampled on **04/21/99** by **ECS**
 Received on **04/22/99** by **KC**
 QC and Data Review by

Preservative: **Refrigeration, HCl**
 Container : **2 VOA Vials**
 Condition of Sample as Received: **Satisfactory**
 Delivered by: **Courier**

Volatile Organics

EPA Method 8260

Parameter for AB41099	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	CH
Bromobenzene	Not detected	1.0	05/05/99	CH
Bromochloromethane	Not detected	1.0	05/05/99	CH
Bromodichloromethane	Not detected	1.0	05/05/99	CH
Bromoform	Not detected	1.0	05/05/99	CH
Bromomethane	Not detected	1.0	05/05/99	CH
n-Butylbenzene	2.0	1.0	05/05/99	CH
sec-Butylbenzene	1.1	1.0	05/05/99	CH
tert-Butylbenzene	Not detected	1.0	05/05/99	CH
Carbon tetrachloride	Not detected	1.0	05/05/99	CH
Chlorobenzene	Not detected	1.0	05/05/99	CH
Chloroethane	Not detected	1.0	05/05/99	CH
Chloroform	Not detected	1.0	05/05/99	CH
Chloromethane	Not detected	1.0	05/05/99	CH
2-Chlorotoluene	Not detected	1.0	05/05/99	CH
4-Chlorotoluene	Not detected	1.0	05/05/99	CH
1,2-Dibromo-3-chloropropane	Not detected	1.0	05/05/99	CH
Dibromochloromethane	Not detected	1.0	05/05/99	CH
1,2-Dibromoethane (EDB)	Not detected	1.0	05/05/99	CH
Dibromomethane	Not detected	1.0	05/05/99	CH
1,2-Dichlorobenzene	Not detected	1.0	05/05/99	CH
1,3-Dichlorobenzene	Not detected	1.0	05/05/99	CH
1,4-Dichlorobenzene	26	1.0	05/05/99	CH
Dichlorodifluoromethane	Not detected	1.0	05/05/99	CH
1,1-Dichloroethane	Not detected	1.0	05/05/99	CH
1,2-Dichloroethane	Not detected	1.0	05/05/99	CH
1,1-Dichloroethene	Not detected	1.0	05/05/99	CH
cis-1,2-Dichloroethene	Not detected	1.0	05/05/99	CH
trans-1,2-Dichloroethene	Not detected	1.0	05/05/99	CH
1,2-Dichloropropane	Not detected	1.0	05/05/99	CH
1,3-Dichloropropane	Not detected	1.0	05/05/99	CH
2,2-Dichloropropane	Not detected	1.0	05/05/99	CH
1,1-Dichloropropene	Not detected	1.0	05/05/99	CH
cis-1,3-Dichloropropene	Not detected	1.0	05/05/99	CH

Volatile Organics
EPA Method 8260

Parameter for AB41099	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	1.0	05/05/99	CH
Ethylbenzene	2.2	1.0	05/05/99	CH
Hexachlorobutadiene	Not detected	1.0	05/05/99	CH
Isopropylbenzene	Not detected	1.0	05/05/99	CH
4-Isopropyltoluene	18	1.0	05/05/99	CH
Methylene chloride	Not detected	1.0	05/05/99	CH
Naphthalene	2.1	1.0	05/05/99	CH
n-Propylbenzene	1.2	1.0	05/05/99	CH
Styrene	Not detected	1.0	05/05/99	CH
1,1,1,2-Tetrachloroethane	Not detected	1.0	05/05/99	CH
1,1,2,2-Tetrachloroethane	Not detected	1.0	05/05/99	CH
Tetrachloroethene	Not detected	1.0	05/05/99	CH
Toluene	950	1.0	05/05/99	CH
1,2,3-Trichlorobenzene	Not detected	1.0	05/05/99	CH
1,2,4-Trichlorobenzene	Not detected	1.0	05/05/99	CH
1,1,1-Trichloroethane	Not detected	1.0	05/05/99	CH
1,1,2-Trichloroethane	Not detected	1.0	05/05/99	CH
Trichloroethene	Not detected	1.0	05/05/99	CH
Trichlorofluoromethane	Not detected	1.0	05/05/99	CH
1,2,3-Trichloropropane	Not detected	1.0	05/05/99	CH
1,2,4-Trimethylbenzene	8.7	1.0	05/05/99	CH
1,3,5-Trimethylbenzene	2.9	1.0	05/05/99	CH
m,p-Xylenes	6.9	2.0	05/05/99	CH
o-Xylene	3.1	1.0	05/05/99	CH
Vinyl chloride	Not detected	1.0	05/05/99	CH
Methyl-t-butyl ether	Not detected	1.0	05/05/99	CH
BFB Surrogate Recovery (%)	105		05/05/99	CH
p-DFB Surrogate Recovery (%)	109		05/05/99	CH
CLB-d5 Surrogate Recovery (%)	105		05/05/99	CH

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-2
Lab ID No: AB41100

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Sampled on 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration, HCl
Container: 4 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8021B

Parameter for AB41100	Result (in ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	GW
Toluene	Not detected	1.0	05/05/99	GW
Ethylbenzene	Not detected	1.0	05/05/99	GW
m,p-Xylenes	Not detected	2.0	05/05/99	GW
o-Xylene	Not detected	1.0	05/05/99	GW
Naphthalene	Not detected	1.0	05/05/99	GW
1,2,4-Trimethylbenzene	Not detected	2.0	05/05/99	GW
1,3,5-Trimethylbenzene	Not detected	1.0	05/05/99	GW
Methyl-t-butyl ether	Not detected	2.0	05/05/99	GW
Bromofluorobenzene (%SR)	99		05/05/99	GW

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-2
Lab ID No: AB41100

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Collected: 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration
Container: 1 Amber Glass
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Petroleum Hydrocarbons by GC

Modified EPA Method 8015

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons	Not detected		04/28/99	04/29/99	MB
Fuel Oil #2	Not detected	0.3	04/28/99	04/29/99	MB
Fuel Oil #4	Not detected	0.3	04/28/99	04/29/99	MB
Fuel Oil #6	Not detected	0.7	04/28/99	04/29/99	MB
Motor Oil	Not detected	0.5	04/28/99	04/29/99	MB
Ligroin	Not detected	0.3	04/28/99	04/29/99	MB
Aviation Fuel	Not detected	0.3	04/28/99	04/29/99	MB
Unidentified	Not detected		04/28/99	04/29/99	MB
Gasoline	Not detected	0.2	04/28/99	04/29/99	MB
Other	Not detected	0.5	04/28/99	04/29/99	MB

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile oils.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes cutting and lubricating oils.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample.

A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-3
Lab ID No: AB41101

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Sampled on 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration, HCl
Container: 4 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8021B

Parameter for AB41101	Result (in ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	GW
Toluene	Not detected	1.0	05/05/99	GW
Ethylbenzene	Not detected	1.0	05/05/99	GW
m,p-Xylenes	Not detected	2.0	05/05/99	GW
o-Xylene	Not detected	1.0	05/05/99	GW
Naphthalene	Not detected	1.0	05/05/99	GW
1,2,4-Trimethylbenzene	Not detected	1.0	05/05/99	GW
1,3,5-Trimethylbenzene	Not detected	1.0	05/05/99	GW
Methyl-t-butyl ether	Not detected	1.0	05/05/99	GW
Bromofluorobenzene (%SR)	99		05/05/99	GW

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-3
Lab ID No: AB41101

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Collected: 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration
Container: 1 Amber Glass
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Petroleum Hydrocarbons by GC

Modified EPA Method 8015

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons	2.5		04/28/99	04/29/99	MB
Fuel Oil #2	Not detected	0.3	04/28/99	04/29/99	MB
Fuel Oil #4	Not detected	0.3	04/28/99	04/29/99	MB
Fuel Oil #6	Not detected	0.7	04/28/99	04/29/99	MB
Motor Oil	Not detected	0.5	04/28/99	04/29/99	MB
Ligroin	Not detected	0.3	04/28/99	04/29/99	MB
Aviation Fuel	Not detected	0.3	04/28/99	04/29/99	MB
Unidentified	Not detected		04/28/99	04/29/99	MB
Gasoline	Not detected	0.2	04/28/99	04/29/99	MB
Other	2.5	0.5	04/28/99	04/29/99	MB

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile oils.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes cutting and lubricating oils.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample.

A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-4
Lab ID No: AB41102

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Sampled on 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration, HCl
Container: 4 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8021B

Parameter for AB41102	Result (in ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	GW
Toluene	Not detected	1.0	05/05/99	GW
Ethylbenzene	Not detected	1.0	05/05/99	GW
m,p-Xylenes	Not detected	2.0	05/05/99	GW
o-Xylene	Not detected	1.0	05/05/99	GW
Naphthalene	Not detected	1.0	05/05/99	GW
1,2,4-Trimethylbenzene	Not detected	1.0	05/05/99	GW
1,3,5-Trimethylbenzene	Not detected	1.0	05/05/99	GW
Methyl-t-butyl ether	Not detected	1.0	05/05/99	GW
Bromofluorobenzene (%SR)	94		05/05/99	GW

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-4
Lab ID No: AB41102

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Collected: 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration
Container: 1 Amber Glass
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Petroleum Hydrocarbons by GC

Modified EPA Method 8015

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons	Not detected		04/28/99	04/29/99	MB
Fuel Oil #2	Not detected	0.3	04/28/99	04/29/99	MB
Fuel Oil #4	Not detected	0.3	04/28/99	04/29/99	MB
Fuel Oil #6	Not detected	0.7	04/28/99	04/29/99	MB
Motor Oil	Not detected	0.5	04/28/99	04/29/99	MB
Ligroin	Not detected	0.3	04/28/99	04/29/99	MB
Aviation Fuel	Not detected	0.3	04/28/99	04/29/99	MB
Unidentified	Not detected		04/28/99	04/29/99	MB
Gasoline	Not detected	0.2	04/28/99	04/29/99	MB
Other	Not detected	0.5	04/28/99	04/29/99	MB

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.

Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.

Fuel Oil #4 - Includes #4 Fuel Oil

Fuel Oil #6 - includes #6 oil and bunker "C" oil.

Motor Oil - includes virgin and waste automobile oils.

Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.

Aviation Fuels - includes Kerosene, Jet A and JP-4.

Other Oil - includes cutting and lubricating oils.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample.

A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: ECS-DUP
Lab ID No: AB41103

Location: After the Fall-Dummerston, VT
Client Job No: 40116.30

Matrix: Ground Water
Sampled on 04/21/99 by ECS
Received on 04/22/99 by KC
QC and Data Review by

Preservative: Refrigeration, HCl
Container: 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Organics

EPA Method 8021B

Parameter for AB41103	Result (in ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	GW
Toluene	Not detected	1.0	05/05/99	GW
Ethylbenzene	Not detected	1.0	05/05/99	GW
m,p-Xylenes	Not detected	2.0	05/05/99	GW
o-Xylene	Not detected	1.0	05/05/99	GW
Naphthalene	Not detected	1.0	05/05/99	GW
1,2,4-Trimethylbenzene	Not detected	1.0	05/05/99	GW
1,3,5-Trimethylbenzene	Not detected	1.0	05/05/99	GW
Methyl-t-butyl ether	Not detected	1.0	05/05/99	GW
Bromofluorobenzene (%SR)	95		05/05/99	GW

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **TRIP8021**
Lab ID No: **AB41104**

Location: **After the Fall-Dummerston, VT**
Client Job No: **40116.30**

Matrix: **Water**
Sampled on **04/21/99** by **ECS**
Received on **04/22/99** by **KC**
QC and Data Review by

Preservative: **Refrigeration, HCl**
Container: **1 VOA Vial**
Condition of Sample as Received: **Satisfactory**
Delivered by: **Courier**

Volatile Organics

EPA Method 8021B

Parameter for AB41104	Result (in ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/05/99	GW
Toluene	Not detected	1.0	05/05/99	GW
Ethylbenzene	Not detected	1.0	05/05/99	GW
m,p-Xylenes	Not detected	2.0	05/05/99	GW
o-Xylene	Not detected	1.0	05/05/99	GW
Naphthalene	Not detected	1.0	05/05/99	GW
1,2,4-Trimethylbenzene	Not detected	1.0	05/05/99	GW
1,3,5-Trimethylbenzene	Not detected	1.0	05/05/99	GW
Methyl-t-butyl ether	Not detected	1.0	05/05/99	GW
Bromofluorobenzene (%SR)	88		05/05/99	GW

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **TRIP8260**

Lab ID No: **AB41105**

Location: **After the Fall-Dummerston, VT**

Client Job No.: **40116.30**

Matrix: **Water**
 Sampled on **04/21/99** by **ECS**
 Received on **04/22/99** by **KC**
 QC and Data Review by

Preservative: **Refrigeration, HCl**
 Container : **1 VOA Vial**
 Condition of Sample as Received: **Satisfactory**
 Delivered by: **Courier**

Volatile Organics

EPA Method 8260

Parameter for AB41105	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	1.0	05/04/99	CH
Bromobenzene	Not detected	1.0	05/04/99	CH
Bromochloromethane	Not detected	1.0	05/04/99	CH
Bromodichloromethane	Not detected	1.0	05/04/99	CH
Bromoform	Not detected	1.0	05/04/99	CH
Bromomethane	Not detected	1.0	05/04/99	CH
n-Butylbenzene	Not detected	1.0	05/04/99	CH
sec-Butylbenzene	Not detected	1.0	05/04/99	CH
tert-Butylbenzene	Not detected	1.0	05/04/99	CH
Carbon tetrachloride	Not detected	1.0	05/04/99	CH
Chlorobenzene	Not detected	1.0	05/04/99	CH
Chloroethane	Not detected	1.0	05/04/99	CH
Chloroform	Not detected	1.0	05/04/99	CH
Chloromethane	Not detected	1.0	05/04/99	CH
2-Chlorotoluene	Not detected	1.0	05/04/99	CH
4-Chlorotoluene	Not detected	1.0	05/04/99	CH
1,2-Dibromo-3-chloropropane	Not detected	1.0	05/04/99	CH
Dibromochloromethane	Not detected	1.0	05/04/99	CH
1,2-Dibromoethane (EDB)	Not detected	1.0	05/04/99	CH
Dibromomethane	Not detected	1.0	05/04/99	CH
1,2-Dichlorobenzene	Not detected	1.0	05/04/99	CH
1,3-Dichlorobenzene	Not detected	1.0	05/04/99	CH
1,4-Dichlorobenzene	Not detected	1.0	05/04/99	CH
Dichlorodifluoromethane	Not detected	1.0	05/04/99	CH
1,1-Dichloroethane	Not detected	1.0	05/04/99	CH
1,2-Dichloroethane	Not detected	1.0	05/04/99	CH
1,1-Dichloroethene	Not detected	1.0	05/04/99	CH
cis-1,2-Dichloroethene	Not detected	1.0	05/04/99	CH
trans-1,2-Dichloroethene	Not detected	1.0	05/04/99	CH
1,2-Dichloropropane	Not detected	1.0	05/04/99	CH
1,3-Dichloropropane	Not detected	1.0	05/04/99	CH
2,2-Dichloropropane	Not detected	1.0	05/04/99	CH
1,1-Dichloropropene	Not detected	1.0	05/04/99	CH
cis-1,3-Dichloropropene	Not detected	1.0	05/04/99	CH

Volatile Organics
EPA Method 8260

Parameter for AB41105	Result (ug/L)	MDL	Analyzed	Analyst
trans-1,3-Dichloropropene	Not detected	1.0	05/04/99	CH
Ethylbenzene	Not detected	1.0	05/04/99	CH
Hexachlorobutadiene	Not detected	1.0	05/04/99	CH
Isopropylbenzene	Not detected	1.0	05/04/99	CH
4-Isopropyltoluene	Not detected	1.0	05/04/99	CH
Methylene chloride	Not detected	1.0	05/04/99	CH
Naphthalene	Not detected	1.0	05/04/99	CH
n-Propylbenzene	Not detected	1.0	05/04/99	CH
Styrene	Not detected	1.0	05/04/99	CH
1,1,1,2-Tetrachloroethane	Not detected	1.0	05/04/99	CH
1,1,2,2-Tetrachloroethane	Not detected	1.0	05/04/99	CH
Tetrachloroethene	Not detected	1.0	05/04/99	CH
Toluene	Not detected	1.0	05/04/99	CH
1,2,3-Trichlorobenzene	Not detected	1.0	05/04/99	CH
1,2,4-Trichlorobenzene	Not detected	1.0	05/04/99	CH
1,1,1-Trichloroethane	Not detected	1.0	05/04/99	CH
1,1,2-Trichloroethane	Not detected	1.0	05/04/99	CH
Trichloroethene	Not detected	1.0	05/04/99	CH
Trichlorofluoromethane	Not detected	1.0	05/04/99	CH
1,2,3-Trichloropropane	Not detected	1.0	05/04/99	CH
1,2,4-Trimethylbenzene	Not detected	1.0	05/04/99	CH
1,3,5-Trimethylbenzene	Not detected	1.0	05/04/99	CH
m,p-Xylenes	Not detected	2.0	05/04/99	CH
o-Xylene	Not detected	1.0	05/04/99	CH
Vinyl chloride	Not detected	1.0	05/04/99	CH
Methyl-t-butyl ether	Not detected	1.0	05/04/99	CH
BFB Surrogate Recovery (%)	116		05/04/99	CH
p-DFB Surrogate Recovery (%)	110		05/04/99	CH
CLB-d5 Surrogate Recovery (%)	113		05/04/99	CH

Spectrum Analytical, Inc.

Laboratory Report Supplement

References

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- Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. EMSL 1983.
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- Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.
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- Standard Methods for Comparison of Waterborne Petroleum Oils by Gas Chromatography. ASTM D 3328. 1982.
- Oil Spill Identification System. U.S. Coast Guard CG-D-52-77. 1977.
- Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. EMSL 1979.
- Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056. EMSL 1985.

Report Notations

Not Detected, Not Det, ND or nd	=	<i>The compound was not detected at a concentration equal to or above the established method detection limit.</i>
NC	=	<i>Not Calculated</i>
MCL	=	<i>EPA Maximum Contamination Level</i>
VOA	=	<i>Volatile Organic Analysis</i>
BFB	=	<i>4-Bromofluorobenzene</i> (An EPA 624 Surrogate)
p-DFB	=	<i>1,4-Difluorobenzene</i> (An EPA 624 Surrogate)
CLB-d5	=	<i>Chlorobenzene-d5</i> (An EPA 624 Surrogate)
BCP	=	<i>2-Bromo-1-chloropropane</i> (An EPA 601 Surrogate)
TFT	=	<i>a,a,a-Trifluorotoluene</i> (An EPA 602 Surrogate)
Decachlorobiphenyl	=	<i>(an EPA 608/8080 Surrogate)</i>

Definitions

Surrogate Recovery = The recovery (expressed as a percent) of a non-method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

Laboratory Replicate = Two sample aliquots taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of laboratory duplicates give a measure of the precision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Field Duplicate = Two separate samples collected at the same time and place under identical circumstances and treated exactly the same throughout field and laboratory procedures. Analysis of Field duplicates give a measure of the precision associated with sample collection, preservation and storage, as well as with laboratory procedures.

Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

$$\%RPD = \frac{(\text{value1} - \text{value2})}{\text{ave. value}} * 100\%$$



CHAIN OF CUSTODY RECORD

Page _____ of _____

Special Handling:

- Standard TAT - 7 to 10 business days
- Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval; min. 24 hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS-VT
 Project Mgr.: Bruce Tease

Invoice To: ECS-MA/Agawan
 P.O. No.: _____ RQN: 2473

Project No.: 40116.30
 Site Name: Former AFTU The Fall
 Location: Dummerston State: VT
 Sampler(s): OCB

1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=MeOH 7=_____

DW=Drinking Water GW=Ground Water WW=Waste Water
 SO=Soil SL=Sludge O=Oil X1=_____ X2=_____

G=Grab C=Composite

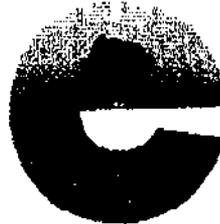
Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	pH	Containers:				Analyses:			Notes:
								# Of VOA Vials	# Of Amber Glass	# Of Clear Glass	# Of Plastic				
AB 41098	Septic	4-21-99	11:50	G	ww	12		2				VOC 80218			
AB 41099	Sep-NOA	4-21-99	11:50		ww			2				TPH-8015			
AB 41100	ECS-2		1:25		GW			4	1			X	X		
AB 41101	ECS-3		1:20		GW			4	1			X	X		
AB 41102	ECS-4		1:40	↓	GW			4	1			X	X		
AB 41103	ECS- Dup		1:26	↓	GW			2				X			
AB 41104	TRIP-80218	4/21/99			H ₂ O	↓		1				X			
AB 41105	TRIP-8260	4/21/99	11:50		H ₂ O	↓		1					X		
AB															
AB															

Additional Instructions: Added info for AB41105
VT VOC Scan listed on sample
label. (EC) 4/23
 Fax results when available to (802) 257-1603

Relinquished By: [Signature]
C. Henning

Received By: [Signature]
C. Henning
X [Signature]

Date: 4/22/99 Time: 13:30
 Date: 4/22/99 Time: 15:14



MAY 21 9 52 AM '99

ENVIRONMENTAL COMPLIANCE SERVICES, INC.

May 17, 1999

CLIENT

Richard Youngman
Dummerston Management
Brattleboro, VT 05301

JOB #

40116.30

TITLE & DATE OF REPORT

"Site Investigation Report," Former After the Fall, Putney Road, Brattleboro, VT
SMS Site #98-2523

May 17, 1999

I have read the above-referenced report and hereby authorize Environmental Compliance Services, Inc. to distribute it to:

VT DEC Waste Management Division
Sites Management Section
103 South Main Street/West Bldg.
Waterbury, VT 05671-0404

Richard D. Youngman
CLIENT SIGNATURE

5/20/99
DATE

/40116.30/approval.firm