DuBois & King inc.

ENGINEERING • PLANNING • DEVELOPMENT • MANAGEMENT

R15694P1-1C
July 27, 1998

Mr. Richard Spiese
Site's Management Section
Waste Management Division
Agency of Natural Resources
103 South Main Street / West Building
Waterbury, Vermont 05671-0404

SUBJECT: Jun's Mobil — SMS#94-1687
Tunbridge, Vermont

Dear Richard:

As we recently discussed, DuBois & King, Inc., was retained by J.D. Gas, in Chelsea, to perform a Phase I and Phase II site assessment of the subject property. The property was listed on the active site's list after discovery of contaminated soils during closure of two gasoline UST's in September 1994. DuBois & King, Inc., collected groundwater samples from the network of four monitoring wells during the assessment process for aromatic volatile organic compound analysis. The results of these analyses, and our conclusions and recommendations for the site, are included in our site investigation report.

Please feel free to call or write if you have questions regarding this investigation.

Very truly yours,

DuBOIS & KING, INC.

Robert B. Nichols

Robert B. Nichols, P.E.
Project Engineer

RBN/dlc

Enclosure

cc: Mr. John Doyle
Mr. Earl Swanson

I:\R15694L\TunMobil.cvrltr.wpd

SUSPECTED RELEASE INVESTIGATION

JUN'S MOBIL

ROUTE 110, TUNBRIDGE, VERMONT
(SMS SITE # 94-1687)

July 24, 1998

Prepared for:

J.D. Gas, Inc.
P.O. Box 97
Chelsea, Vermont 05038

DuBois & King Project # R15694P1

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APPENDICES

1.0 INTRODUCTION

The former Jun's Mobil property, owned by Earl (Jun) and Pat Swanson, is located on the west side of Vermont Route 110 just south of the intersection of Cushman Road, in Tunbridge (see Site Location Plan in Appendix A). The property is the Swanson's residence and small business location and consists of three buildings: a maintenance garage, a three bedroom home, and a small garden shed. Adjoining property use is primarily agricultural and rural residential. The current business operating on the property is known as Jun's Ski-Doo, and is a small engine sales and maintenance business. The main stem of the First Branch of the White River flows to the south on the east side of Route 110. Land on the west side of the property slopes up moderately and is wooded. Groundwater flow is presumed to flow in an easterly direction toward the First Branch. The property is approximately 1.25 acres in size and, according to the land records of the Town of Tunbridge, has frontage on Route 110 of approximately 268 feet and a depth of 200 feet.

Monitoring wells were installed at the site of the UST's in 1990 to meet the release detection requirements of the UST permit. One of the wells is located in the upgradient direction from the location of the former tanks, two are located downgradient of the former tanks, and one is located downgradient of the former pump island. The boring logs for these wells is included in Appendix E.

Jun's Mobil operated as a motor fuel distributorship from, approximately, 1969 to 1994. Two underground gasoline storage tanks, 4,000 and 6,000 gallons capacity, were closed on September 13, 1994. The closure report, prepared by James Shippee Welding, indicated that petroleum contaminated soils were encountered and that a release of product to soils and potentially to groundwater was suspected. The 4,000-gallon UST had three small holes and was suspected to be the source of the release. The 6,000-gallon UST was reported to be in good condition. Soils in the tank pit were described as silt and clayey sand. Between two and six yards of soil were excavated and stockpiled for treatment on-site by polyencapsulation. In response to the closure report, the SMS issued a letter to Mr. Swanson, on October 11, 1994, determining the need for additional work and requesting the owner to retain the services of a qualified environmental consultant to complete a release investigation. This investigation was not initiated at that time.

The stockpiled soils were screened by a member of the Vermont Agency of Natural Resources (ANR) Waste Management Division (WMD) Sites Management Section (SMS) early in June 1998, at the request of the property owner, and determined to be free of contamination. The SMS issued authorization to "thin spread" the soils on June 9, 1998. This action was completed on June 20, 1998. The soils were spread over the area on the northern side of the garage where the tanks were previously located. Appendix B is the site plan of the property.

2.0 GROUNDWATER SAMPLING

Groundwater samples were collected from the network of four monitoring wells on June 23, 1998 and were analyzed for the aromatic volatile organic compounds (BTEX, MTBE and four chlorinated compounds) using EPA Method 602/8020. The results of these analyses indicate that aromatic volatile organic compounds were not detected at the method detection limit of 1 μg/L at any of the four monitoring points. The laboratory reports are included in Appendix C.

3.0 SENSITIVE ENVIRONMENTAL RECEPTORS

The water supply to the garage and residence on the subject property is a spring located on the adjoining property to the west and in an upgradient direction from the former underground storage tanks. The residence is located upgradient of the former UST pit location. The garage itself does not have a basement. There are no other structures within 1,000 feet of the suspected source location. Based on the dominant topographic features of the area, groundwater flow through the site would be expected to flow from the Pinnacle, located approximately one mile to the west of the site, to the First Branch. There are no structures in this flow path between the suspected source location and the assumed groundwater discharge point in the First Branch.

No other potential sensitive receptors are identified in the vicinity of this site.

4.0 CONCLUSIONS

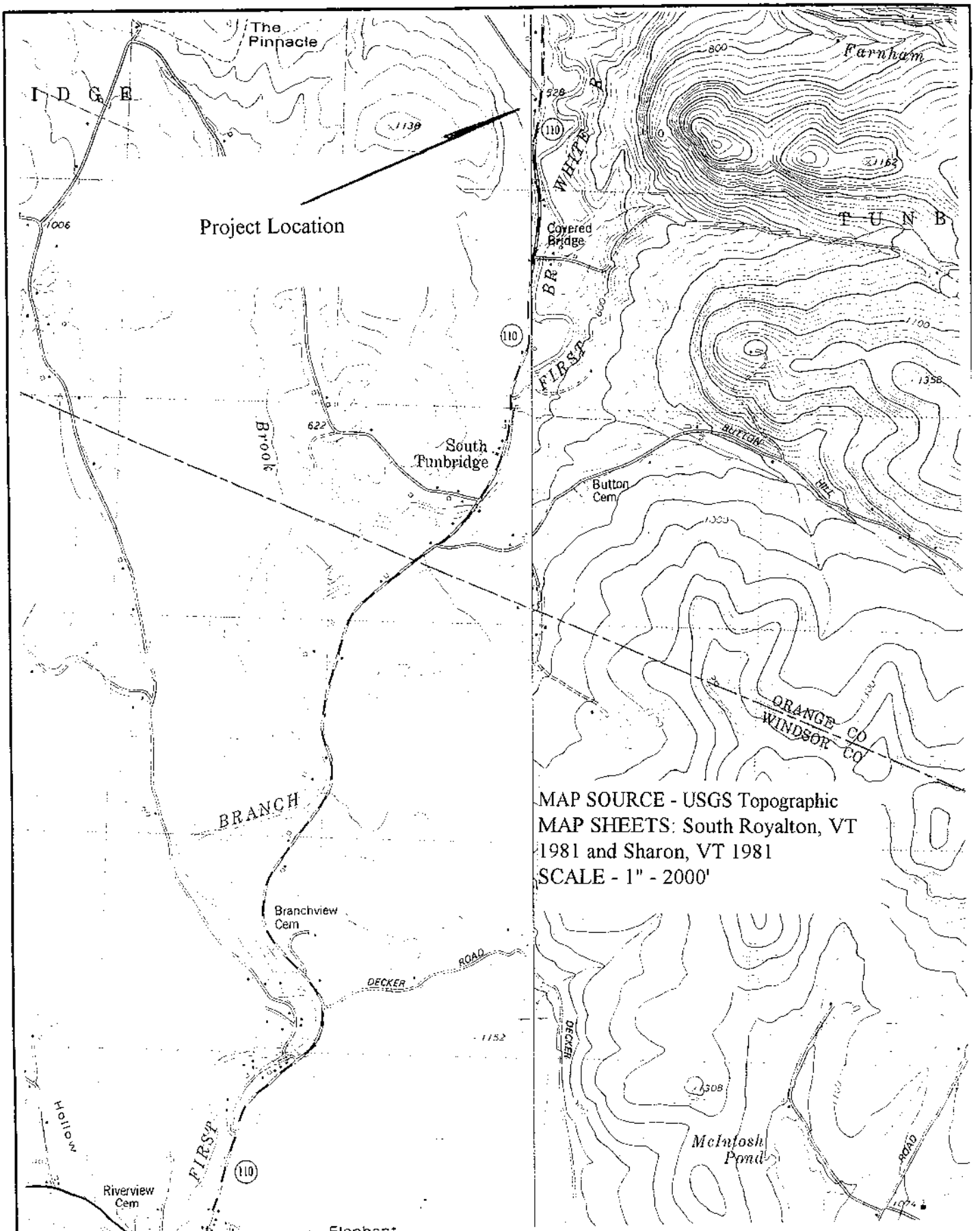
DuBois & King, Inc. has completed an investigation into a suspected release of gasoline product at the former Jun's Mobil site in Tunbridge. Analysis of groundwater samples collected in June 1998 indicate that the groundwater quality downgradient of the former UST pit is not currently impacted above the method detection limits for aromatic volatile organic compounds. Soils which were stockpiled at the time of the UST closure activity, in September 1994, were screened by a member of the SMS staff in June 1998 and were determined to be suitable for thin spreading. This activity was completed by the property owner in June 1998.

5.0 RECOMMENDATIONS

The present investigation has revealed no evidence of continuing presence of aromatic volatile compounds in the groundwater. Thin spreading of the stockpiled soils was authorized by the SMS. We therefore recommend that the site be considered for a Site's Management Activity Completed determination and that no additional investigatory activities be required.

APPENDIX A

SITE LOCATION MAP



MAP SOURCE - USGS Topographic
MAP SHEETS: South Royalton, VT 1981 and Sharon, VT 1981
SCALE - 1" - 2000'

DuBois & King, Inc.
engineering planning management development

LOCATION PLAN

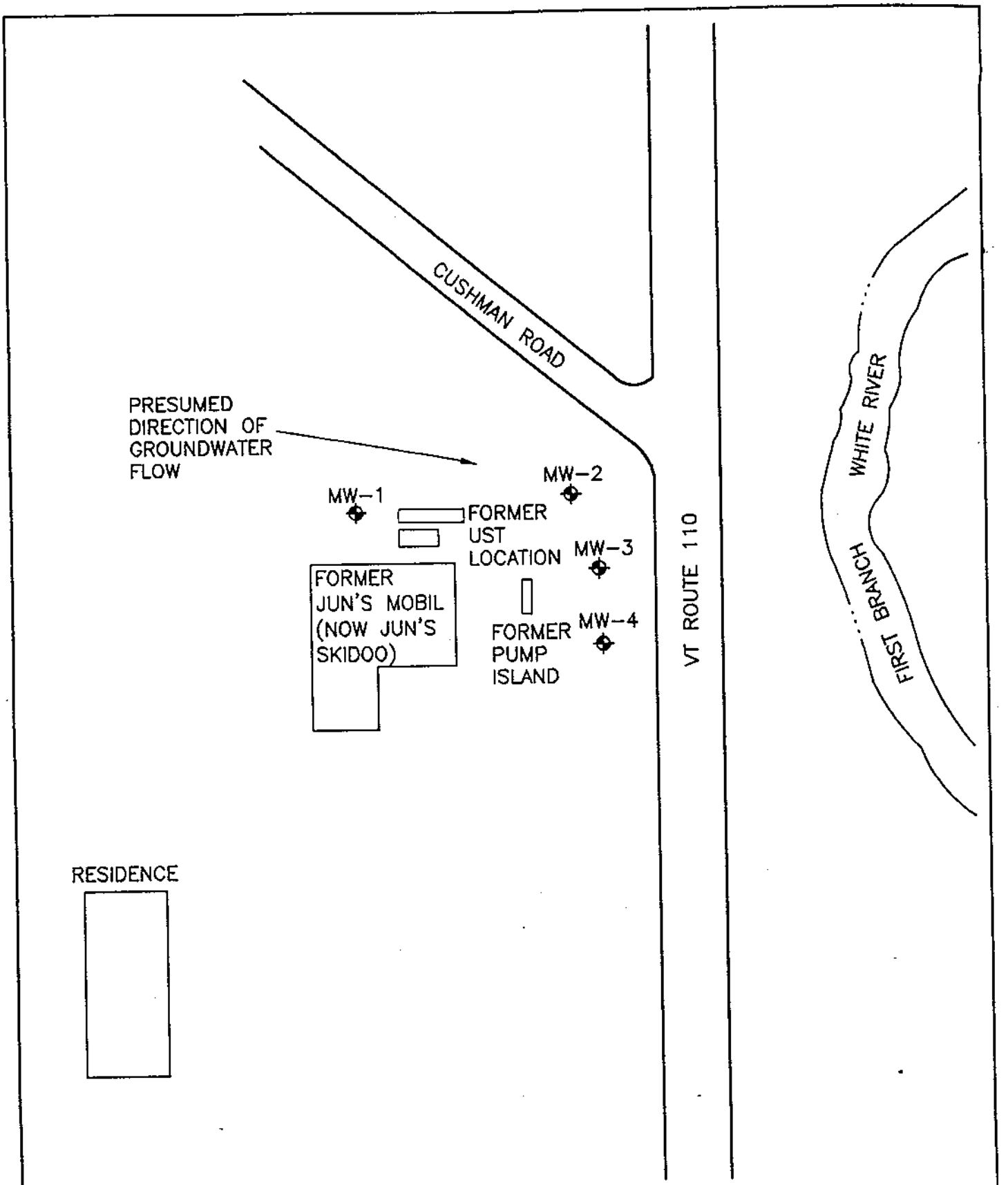
Former Jun's Mobil
SMS # 94-1687
Tunbridge, VT

DRAWN BY	DATE 07/98
CHECKED BY	PROJ. NO. R15694
PROJ. ENG.	DRAW. NO.

EXHIBIT

APPENDIX B

SITE PLAN



DuBois & King, Inc.
engineering planning management development

EARL & PATRICIA SWANSON PROPERTY
TUNBRIDGE, VERMONT

SMS# 94-1687

DRAWN BY	DATE
SES	JULY 1998
CHECKED BY	PROJ. NO.
	R15694P1
PROJ. ENG.	DRAW. NO.
	-

EXHIBIT 1

APPENDIX C

LABORATORY REPORTS

SCITEST
LABORATORY SERVICES

ANALYTICAL REPORT

P.O. Box 339
Randolph, Vermont 05060-0339
(802) 728-6313

Dubois & King
P.O. Box 339
Rte 66 Professional Center
Randolph, VT 05060

Work Order No.: 9806-02214

Project Name: Junes' Mobil Station
Customer Nos.: 080439

Date Received: 6/23/98
Date Reported: 6/24/98

Sample Desc.: MW-1
Sample Nos: 001

Sample Date: 6/23/98
Collection Time: 10:00

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020/602			JPM	6/23/98
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Toluene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Surrogate: 8020				JPM	6/23/98
***Bromofluorobenzene-8020		95	% Recovery	JPM	6/23/98

Sample Desc.: MW-2
Sample Nos: 002

Sample Date: 6/23/98
Collection Time: 10:15

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020/602			JPM	6/23/98
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Toluene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Surrogate: 8020				JPM	6/23/98
***Bromofluorobenzene-8020		93	% Recovery	JPM	6/23/98

ANALYTICAL REPORT

Project Name: Junes' Mobil Station
Project No.: 080439

Work Order No.: 9806-02214

Sample Desc.: MW-3
Sample Nos: 003
Sample Date: 6/23/98
Collection Time: 10:30

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020/602			JPM	6/23/98
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Toluene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Surrogate: 8020				JPM	6/23/98
***Bromofluorobenzene-8020		91	% Recovery	JPM	6/23/98

Sample Desc.: MW-4
Sample Nos: 004
Sample Date: 6/23/98
Collection Time: 11:00

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020/602			JPM	6/23/98
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Toluene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Surrogate: 8020				JPM	6/23/98
***Bromofluorobenzene-8020		90	% Recovery	JPM	6/23/98

Sample Desc.: Trip Blank
Sample Nos: 005
Sample Date: 6/23/98
Collection Time: 0:00

Test Performed	Method	Results	Units	Analyst	Analysis Date
Aromatic Volatile Organics	EPA 8020/602			JPM	6/23/98
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Toluene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	6/23/98

ANALYTICAL REPORT

Project Name: Junes' Mobil Station
Project No.: 080439

Work Order No.: 9806-02214

Sample Desc.: Trip Blank
Sample Nos: 005

Sample Date: 6/23/98
Collection Time: 0:00

Test Performed	Method	Results	Units	Analyst	Analysis Date
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	6/23/98
Surrogate: 8020				JPM	6/23/98
***Bromofluorobenzene-8020		94	% Recovery	JPM	6/23/98

BPQL = Below Practical Quantitation Limit; 1 ug/L

Authorized by:

SCITEST
LABORATORY SERVICES

APPENDIX D

CORRESPONDENCE

James H. Shippee - Welding
PO Box 47
Vernon, VT 05354-0047
(802) 257-5130 - (802) 257-0575

September 14, 1994

Vermont Agency of Natural Resources
Department of Environmental Services
103 So. Main Street, West Building
Waterbury, VT 05676

RE: Permanent UST Closure Site Assessment

VT FACILITY ID# 8895546

attention.: Marc Coleman

Dear Mr. Coleman:

I performed an initial site assessment for a permanent underground storage tank (UST) closure at the above facility starting on 09/13/94 and summed up on 09/13/94.

BRIEF HISTORY OF THE FACILITY:

Two USTs were installed on or about 1969. UST ID#1 a 5K unprotected tank with suction piping storing high test (super) unleaded gasoline for commercial operation and UST ID#2 a 4K unprotected tank with suction piping storing a lower test (regular) unleaded gasoline for commercial operation. Before the introduction of unleaded gasoline the higher and lower grades were reversed. There are 4 groundwater monitoring wells at the facility; 1 up gradient of the tank field, 1 down gradient of the dispenser island and 2 down gradient of the tank field.

THE EXCAVATING CONTRACTOR WAS:
Fran Bean Excavating (assisted by Webster Excavating)
RFD 2, Box 576
Bethel, VT 05032
(802) 234-9339

FIELD ACTIVITIES & OBSERVATIONS - 09/13/94:

1) The USTs were mostly empty upon my arrival as "sticked" from the fill pipe end. (see attachments)

However; UST #2 (4K) was found to be excessively pitched away from the fill pipe end and contained about 20 gallons of water at the low end. The circumstance of this tank will lead me to the conclusion of a release as detailed later in this report. A total of 33 gallons of tank bottom waste was generated from the two USTs.

2) Petroleum Contaminated Soil (PCS) was first detected by olfactory during excavation at a depth of about four feet below grade which is about the top of tank depth. Volatile organic compound (VOC) in the breathing zone (BZ) was below 10 ppm total hydrocarbon (TPH). There was no visual

observation as stained soil throughout the entire excavation.

3) The soil was screened for VOC in 35 sample events which averaged 191 ppmv including a peak of 2,150 ppmv (reference to hexane - X 1.11 as benzene) using a Tracetechtor organic vapor analyzer (OVA). Calibration was performed at 8:40 AM and 2:55 PM. See attached file SSJM0913.cal for sample events and remarks.

The tank pit area was silt and clayey sand from a depth of about 4 feet to 10 feet as the limits of excavation.

It was noted that VOC levels declined from 1,200 to 2,150 ppmv at tank bottom to 1 to 5 ppmv at depths 1 to 1 1/2 feet below tank bottom. The side walls of the excavation showed similar confinement. The "hot spots" were limited to the low end of UST #2 (4K); suspect for point of release.

4) Groundwater was not encountered at a depth of 10 feet below grade. However, watermarks on the tanks suggested GW table has been seasonally 8 feet below grade.

5) Approximately 5 cubic yards of PCS was dedicated for on site poly-encapsulated stockpiling. The average VOC recorded was 373 ppm with a high of 2,150 ppmv and a low of 1 ppmv. See backfill/stockpile columns of attached file SSJM0913.cal

6) Both USTs were purged prior to removal.

7) A portion of the regular pump dispenser was broken due to water freezing which was supportive of the water found at the low end of the associated tank.

8) Several photos were taken - not available at the time of this report.

Work concluded for the day.

FIELD ACTIVITIES & OBSERVATIONS - 09/14/94:

1) A 20 foot length of 4" perforated pipe was placed in the tank pit excavation at a depth of 7 feet with a riser extending laterally to the surface. This pipe will serve as a bio-vent which may also be monitored for vapors. Passive bio-venting in my past experience has significantly increased the remediation process. For those not skilled in the art - certain naturally occurring bacteria, which require oxygen, can cannibalize petroleum constituents. This bio-vent pipe aids the oxygen supply to the soil void.

2) The soil was screened in not less than 23 sample events during backfilling which averaged 26 ppmv with a peak of 260 ppmv. See attached file SSJM0914.cal for sample events and remarks.

All soils screened above 10 ppmv was selected for PCS stockpile. Contaminations levels at or below was used for backfill. An estimated total PCS stockpile is 6 cubic yards.

3) New backfill was placed in layers of 12 CY over virgin backfill layers of about the same volume. The intent it to create several low level PCS interfaces with clean soil backfill to decrease equilibrium time and increase aerobic bacteria activity.

4) The UST #1 (6K) was inspected and found to be good. UST #2 (4) was a LUST (leaking UST). Three small holes approximately 1/8" in diameter, were found at the bottom and Southerly end which agreed with the soil screening "hot spots." All pipe joints were tight. Any releases were most likely associated to those single tank leaks.

5) Soil, groundwater, well water, samples were not taken in lieu of the existing monitoring wells on site.

6) The facility is served by a spring about 400 feet up gradient of the now former UST field which in of no concern.

7) EPA ID# VTP00005503 was assigned to the one drum of tank bottom waste.

OVERVIEW:

1) The receptor affected was soil. It is conjecture that seasonally high groundwater would also have been impacted.

2) The limits of contamination were defined to be below levels of concern within 1 to 1 1/2 feet below tank bottom in confining silty clay and less than 1/2 foot in the side walls of the excavation from 4 feet to tank bottom depths. No PCS was noted above the four foot depth.

3) The release was a single tank single occurrence.

RECOMMENDATIONS:

1) Dispose of the drummed waste in accordance with State and Federal regulations (suggest Lee's Oil Service).

2) Monitor the PCS stockpile until non-detect. The site is well suited for on site disposal.

3) Collect at least one round of samples from the two GW MWs down gradient to be analyzes by an EPA Method approved by SMS.

Due to my present work load I am not proposing to do additional site characterization.

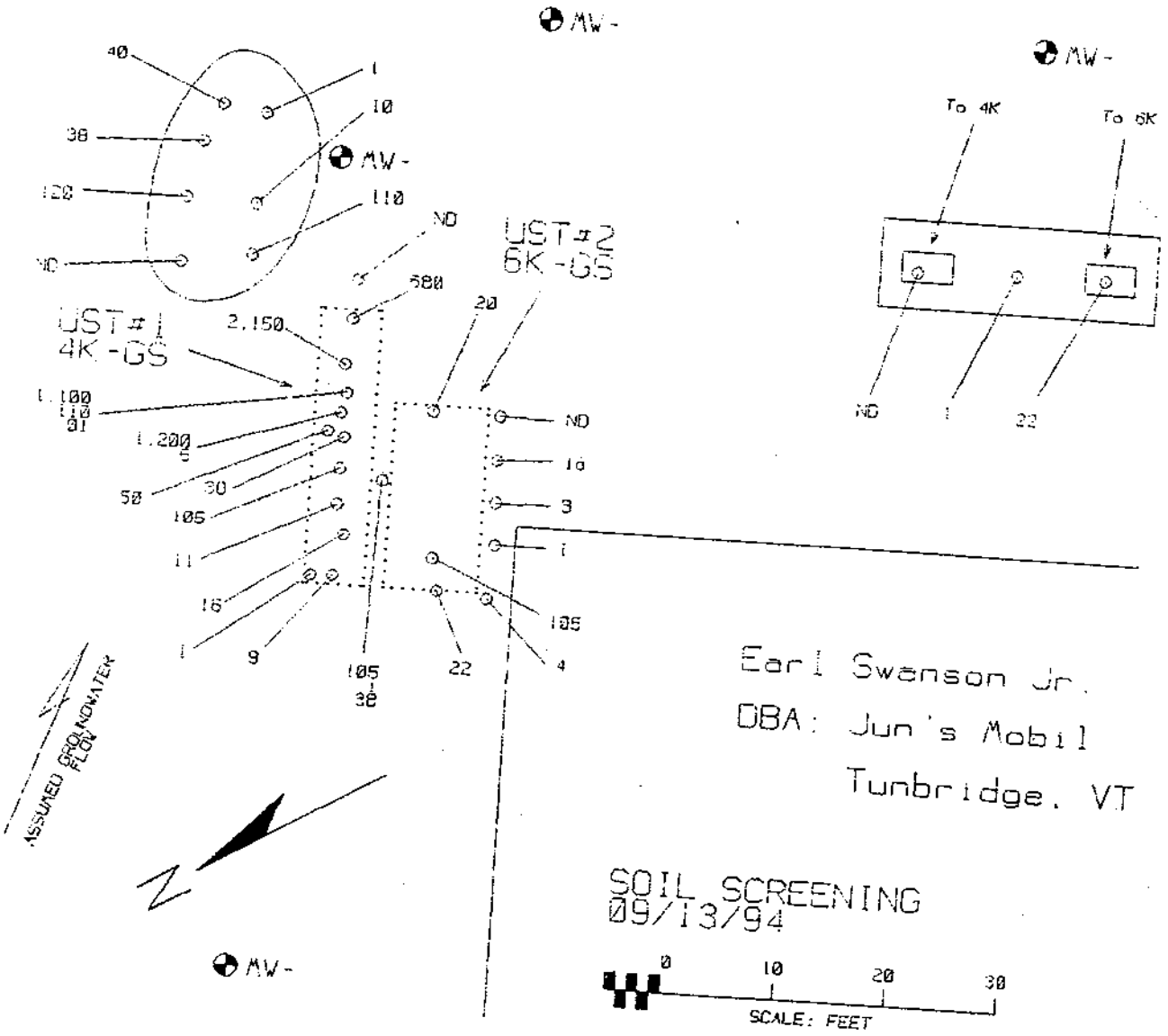
Sincerely,

Jim Shippee

JHS/js
attachments
file \QA\VTANR\SAJM0914.qaf

ROUTE 110

tp 115-1



SOIL VAPOR SURVEY
Tim's Mobil
Cambridge, VT

Date: 3/13/94

sample event #	TPH ppmv	depth feet	soil type	TPH ppmv		TPH ppmv	remarks all sample events - grab or in-situ
				backfill	stockpile		Pump Island
2	22	.0	sand	22	X		below super pump - surface
3	0	.0	sand	0	X		below regular pump - surface
4	3	1.0	sand	3	X		between pumps with concrete pad remo
SUB AVG.	8	.3		8			
				backfill	stockpile		UST #2 - 4K gasoline
1	110	4.0	sand	X		110	Between USTs 1&2 in excavation
5	9	4.0	sand	9	X		East end UST
6	16	4.0	sand	16	X		West of UST Center
7	11	4.0	sand	11	X		East of UST Center
8	105	4.0	sand	X		105	Center of UST
9	38	4.0	sand	X		38	East of UST Center
10	0	4.0	sand	0	X		East end UST
11	1,100	9.0	sandy silt	X		1,100	Center of UST
12	110	9.5	silt	X		110	Center of UST
13	1	10.0	silt	1	X		Center of UST
14	2,150	8.0	sand	X		2,150	East of UST Center
15	680	9.0	sandy silt	X		680	East of UST Center
16	1,200	8.5	sandy silt	X		1,200	Center of UST
17	5	9.5	silt	5	X		Center of UST
18	30	9.5	silt	X		30	North of UST Center
19	105	8.5	sand	X		105	South of UST Center
20	1	5.0	sand	1	X		NW corner of UST
SUB AVG.	335	6.7		6		585	
				backfill	stockpile		UST #1 - 6K gasoline
21	22	7.0	sand	22	X		North End of UST
22	105	8.0	sand	X		105	West of UST Center
23	38	8.0	sand	38	X		Center of UST
24	20	8.0	sand	20	X		East End of UST
SUB AVG.	46	7.8		27		105	
				backfill	stockpile		Excavated Soil
25	0	6.0	sand	0	X		random grab and in-situ
26	120	6.0	sand	X		120	random grab and in-situ
27	38	6.0	sand	X		38	random grab and in-situ
28	40	6.0	sand	X		40	random grab and in-situ
29	1	6.0	sand	X		1	random grab and in-situ
30	10	6.0	sand	X		10	random grab and in-situ
SUB AVG.	35	6.0		9		42	

31	0	4.0	silt	0	%	limits of excavation west pit wall
32-35	0	6.0	silt	0	%	limits of excavation west pit wall
SUB AVG.	4	5.0		4		
				backfill	stockpile	
TOTAL AVG.	131	6.0		10	373	
	ppmv TPH total	depth feet		ppmv TPH backfill	ppmv TPH stockpile	

Overall Remarks:

A leak was found in UST #1 (4K) gasoline.
The total tank pit area was excavated in confining silt
starting from a depth of 3 feet below grade to 10 feet.

Average backfill VOC - 11 ppmv
Average stockpile VOC - 373 ppmv

file: SSJM0913.cal

SOIL VAPOR SURVEY
Jim's Mobil
Tunbridge, VT

Date: 9/14/1994

sample event #	TPH ppmv	soil type	TPH ppmv backfill	TPH ppmv	TPH ppmv stockpile
1	24	sand	X		24
2	3	sand		3	X
3	4	sand		4	X
4	4	sand		4	X
5	17	sand	X		17
6	7	sand		7	X
7	0	sand		0	X
8	10	sand		10	X
9	9	sand		9	X
10	17	sand	X		17
11	34	sand	X		34
12	4	sand		4	X
13	8	sand		8	X
14	17	sand	X		17
15	34	sand	X		34
16	0	sand		0	X
17	32	sand	X		32
18	54	sand	X		54
19	16	sand	X		16
20	8	sand		8	X
21	260	silt	X		260
22	32	sand	X		32
23	7	sand		7	X
TOTAL AVG.	26			5	49
	ppmv TPH		ppmv TPH		ppmv TPH

Overall Remarks:

Soil screening 09/14/94:			Soil excava
Average backfill VOC	5.3	ppmv	10.0
Average stockpile VOC	48.8	ppmv	373.0
Peak VOC	260	ppmv	2,150

Estimated 6 CY PCS stockpiled 09/14/94:

file: SSJM0914.cal

FAC. ID#: 8895546 HAZ.SITE # (if any):
OWNER'S NAME : SWANSON JR., EARL L.
CONTACT PERSON: DBA JUN'S MOBIL
ADDRESS : ROUTE 110
TOWN : TUNBRIDGE STATE: VT ZIP: 05077
OPR. NAME : EARL L. SWANSON, JR.
OPR. CONTACT : DBA JUN'S MOBIL
OPR. STREET : ROUTE 110
OPR. TOWN : TUNBRIDGE OPR. STATE: VT OPR. ZIP: 05077
PERMITTEE : T
PHONE # : 802-889-5546
FAC. NAME : JUN'S MOBIL
FAC. STREET : ROUTE 110
FAC. TOWN : TUNBRIDGE
FAC. TOWN CODE: 205
FAC. CNTY CODE: 9
FAC. STATE : VT FAC. ZIP: 05077
GWMW : 4 #VMW:
TYPE OF FAC. : 4 ANNUAL BILLING MO.: 9
YR. PERM. EXP.: 97 MISC.: TANK ID#: 1 YR.: 1969
CAPACITY : 6,000 SUB.STORED: GS
TANK PROTECT : U RELEASE M1: GWM RELEASE M2:
OVERFILL? : N
OUT OF SERV.? :
CAT 1? : Y
EX CAT 1? :
MISC. :
PIPE INSTALL : 1969
PIPE PROTECT : U
PIPE RELEASE M1: GWM
PIPE RELEASE M2: PIPING PUMP: S
MISC. :
TO DO DATE : Sep 13, 1994
Mail Date: Sep 14, 1994
Remarks: Fran Bean
schedule confirmed Aug 25, 1994, 9:18 am w/ Ted Uncles
Recheduled from Sept 1, 94 on Sept 2, 94

FAC. ID#: 8895546 HAZ.SITE # (if any):
OWNER'S NAME : SWANSON JR., EARL L.
CONTACT PERSON: DBA JUN'S MOBIL
ADDRESS : ROUTE 110
TOWN : TUNBRIDGE STATE: VT ZIP: 05077
OPR. NAME : EARL L. SWANSON, JR.
OPR. CONTACT : DBA JUN'S MOBIL
OPR. STREET : ROUTE 110
OPR. TOWN : TUNBRIDGE OPR. STATE: VT OPR. ZIP: 05077
PERMITTEE : T
PHONE # : 802-889-5546
FAC. NAME : JUN'S MOBIL
FAC. STREET : ROUTE 110
FAC. TOWN : TUNBRIDGE
FAC. TOWN CODE: 205
FAC. CNTY CODE: 9
FAC. STATE : VT FAC. ZIP: 05077
GWMW : 4 #VMW:
TYPE OF FAC. : 4 ANNUAL BILLING MO.: 9
YR. PERM. EXP.: 97 MISC.: TANK ID#: 2 YR.: 1969
CAPACITY : 4,000 SUB.STORED: GS
TANK PROTECT : U RELEASE M1: GWM RELEASE M2:
OVERFILL? : N
OUT OF SERV.? :
CAT 1? : Y
EX CAT 1? :
MISC. :
PIPE INSTALL : 1969
PIPE PROTECT : U
PIPE RELEASE M1: GWM
PIPE RELEASE M2: PIPING PUMP: S
MISC. :
TO DO DATE : Sep 13, 1994
Mail Date: Sep 14, 1994
Remarks: Fran Bean
Orginal date: Sep. 7, 1994, rescheduled on Sep 2, 1994
Satered Sep 13, 1994; completed Sep 14, 1994

State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
Natural Resources Conservation Council
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Hazardous Materials Management Division
103 South Main Street / West Building
Waterbury, Vermont 05671-0404
802-241-3888
FAX 802-241-3296

October 11, 1994

Earl Swanson Jr.
Jun's Mobil
Route 110
Tunbridge, VT 05077

RE: Petroleum contamination at Jun's Mobil in Tunbridge, Vermont
(Site #94-1687)

Dear Mr. Swanson:

The Sites Management Section (SMS) has received the September 14, 1994 report outlining the subsurface assessment for the above referenced site, conducted by James H. Shippee. This report summarizes the degree and extent of contamination encountered during the assessment on September 13 - 14, 1994.

Two underground storage tanks (USTs) containing gasoline were removed. Soils screened in the tank bed had peak concentrations of 2,150 ppm as measured by a photoionization detector (PID). A total of six cubic yards of petroleum contaminated soil were stockpiled and polyencapsulated onsite. Volatile organic compound (VOC) levels were less than 5 ppm at the limits of the excavation. No groundwater or free phase product was observed throughout the tank pull. Evidence of a seasonal high water table were evident on the tanks. One perforated pipe was installed into the excavation pit to aid in passive bioventing. Four groundwater monitoring wells exist at the facility.

Based on the above information, the SMS has determined that additional work is necessary at the site in order to determine the severity of contamination present. Due to the possibility of contaminant impact to nearby receptors, the SMS is requesting that Earl Swanson retain the services of a qualified environmental consultant to perform the following:

1. Determine the degree and extent of contamination, if any, to groundwater. This can be accomplished by collecting groundwater samples from the four previously installed wells and have the samples analyzed for BTEX and MTBE compounds. Additional wells and/or soil borings may need to be installed if the extent of the contamination cannot be determined above.

2. Perform an assessment of the site to determine the potential for sensitive receptors to be impacted by the contamination. This should include basements of adjacent buildings, nearby surface water, and any public or private drinking water wells which are located within the vicinity of the site. If any water supplies appear at risk

from this contamination, they should be sampled and analyzed using EPA 8020.

3. Develop a plan to treat and/or monitor the stockpiled soils. The soils must be located in an area such that they have a low potential to impact nearby receptors. They must also be properly encapsulated in plastic. If the soils are to be moved offsite, the SMS or UST Program must grant permission prior to their transport.

4. Determine the need for a long term treatment and/or monitoring plan which addresses any identified contamination present at the site. The need for such a plan should be based on the results of the above investigations.

5. Submit to the SMS a summary report which outlines the work performed as well as providing conclusions and recommendations. Included should be a site map showing any sensitive receptors and the stockpiled soil, an area map, and a groundwater contour map.

Please have your consultant submit a preliminary workplan or Site Expressway Notification Form within fifteen days of your receipt of this letter so that it may be approved prior to the initiation of onsite work. Enclosed please find a list of consultants who perform this type of work in the area as well as the brochure "Selecting Your UST Cleanup Contractor", which will help you in choosing an environmental consultant.

The underground storage tanks at the Jun's Mobil are covered by the Petroleum Cleanup Fund as set forth in 10 V.S.A. Section 1941. The owner or permittee must pay for the removal or repair of the failed UST and for the first $10,000 of the cleanup; after that the fund will reimburse the tank owner or permittee for additional costs up to $1 million. Attached please find the document titled "Reimbursement Package of the Petroleum Cleanup Fund" which further explains this program. Additionally, the Secretary of the Agency of Natural Resources reserves the right to seek cost recovery of fund monies spent at Jun's Mobil if the Secretary concludes that Earl Swanson was in significant violation of the Vermont Underground Storage Tank statutes (10 V.S.A. Chapter 59). If you have any questions, please feel free to call.

Sincerely,

Richard Spiese

Richard Spiese, Acting Supervisor
Sites Management Section

CC: James Shippee
Tunbridge Selectboard
DEC Regional Office

Enclosures.
RS:JPF/wp51/941687

Trip Report

TO: Richard Speise

THROUGH: Ted Unkles

FROM: Andrew Shirley

DATE: 6/9/98

SUBJECT: Soil Stockpile Screening

Inspection Information

Date of Inspection: 6/9/98 Type of Inspection: Screening

Inspector: AS Person spoke with: Earl & Pat Swanson

Alleged Violations found: —

- Stop by to Screen stockpile
- less than 2 yd³ in unscreened pile
- Results as measured w/ Hnu PI-101 calibrated @ 13:15
  Background 1.2 ppm
  four composite samples 0.4 / 0.8 / 0.6 / 0.6
- Received permission to thin spread soils from SMS Site manager Richard Speise @ 13:55
- Produce this record as documentation of visit, left pink copy w/ Mr. & Mrs. Swanson.

APPENDIX E

MONITORING WELL BORING LOGS

Green Mountain Boring Co., Inc.

R. D. 2 — BARRE, VERMONT 05641

SHEET 1 OF
DATE 11 27 90
HOLE NO. MW-1
LINE & STA.
OFFSET

TO Jim's mobil
ADDRESS [illegible]
PROJECT NAME [illegible]
LOCATION [illegible]
REPORT SENT TO [illegible] mobil
PROJ. NO.
SAMPLES SENT TO
OUR JOB NO.

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR.
At 18 at 1/2 Hours	Type	AUGERS	SPLIT SPOON	
	Size I. D.	4.25	1⅜"	
At at Hours	Hammer Wt.		140#	
	Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED 11 27 90
DATE COMPL. 11 [illegible]
BORING FOREMAN [illegible]
INSPECTOR
SOILS ENGR.

LOCATION OF BORING: West End of Tanks Upgrade

DEPTH	Casing Blows per foot	Sample Depths From — To	Type of Sample	Blows per 6" on Sampler From To 0-6	6-12	12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc.	SAMPLE No.	Pen
									Augered to 20' with 425" Augers		
									Augered trough fine sands and silt		
									Set well at 20'		
									— materials used —		
									3 bags grade 2 silica sand 100		
									15 lbs bentonite		
									10' .020 screen 2" pvc		
									10' Riser 2" pvc		
									1 Top wing type cap		
									1 bottom slip cap		
									1 protective casing (m-65)		
									40 lbs cement		
									1 developer		

GROUND SURFACE TO 20' USED 4.25" AUGERS: THEN SET WELL

Sample Type | Proportions Used | 140 lb. Wt. x 30" fall on 2" O. D. Sampler | Cohesionless Density | Cohesive Consistency | SUMMARY:

MW-1

Green Mountain Boring Co., Inc.

R. D. 2 – BARRE, VERMONT 05641

SHEET 2 OF
DATE 11-27-90
HOLE NO. MW-2
LINE & STA.
OFFSET

TO Jones Brothers
PROJECT NAME Fuel tanks
REPORT SENT TO Jones Brothers
SAMPLES SENT TO
ADDRESS Box 207 Londonderry VT
LOCATION Londonderry
PROJ. NO.
OUR JOB NO.

GROUND WATER OBSERVATIONS

At 11' at 1/2 Hours

At ..... at ..... Hours

	CASING	SAMPLER	CORE BAR.
Type	AUGERS	SPLIT SPOON	
Size I. D.	4.25	1 3/8"	
Hammer Wt.		140#	
Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED 11-27-90
DATE COMPL. 11-27-90
BORING FOREMAN Gaineau
INSPECTOR
SOILS ENGR.

LOCATION OF BORING: East End of tanks down grade

DEPTH	Casing Blows per foot	Sample Depths From – To	Type of Sample	Blows per 6" on Sampler From To 0-6	6-12	12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc.	SAMPLE No.	Pen
									Augered to 20' w/ 4.25" Augers		
									Augered through fine Sands and Silt		
									Set WELL AT 20'		
									Materials used		
									3 bags graded Silica Sand 100 lbs		
									15 lbs bentonite		
									10' River 2" PVC		
									10' .020 Screen 2" PVC		
									1 top wing type cap		
									1 bottom Slip cap		
									1 protective casing (m-55)		
									40 lbs Cement		

GROUND SURFACE TO 20' USED 4.25 AUGERS: THEN SET WELL

Sample Type: D=Dry C=Cored W=Washed | Proportions Used from 0 to 10% | 140 lb. Wt. x 30" fall on 2" O. D. Sampler | Cohesionless Density | Cohesive Consistency | SUMMARY:

MW-2

Green Mountain Boring Co., Inc.

R. D. 2 — BARRE, VERMONT 05641

SHEET 3 OF
DATE 11-27-90
HOLE NO. MW-3
LINE & STA.
OFFSET NONE

TO JWS Mobil
ADDRESS Box 204 Tunbridge
PROJECT NAME fuel tanks
LOCATION Tunbridge Vt
REPORT SENT TO JWS mobil
PROJ. NO.
OUR JOB NO.
SAMPLES SENT TO

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR.
At 14' at 1/2 Hours	Type	AUGERS	SPLIT SPOON	
	Size I. D.	4 1/4	1 3/8"	
	Hammer Wt.		140#	
At at Hours	Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED
DATE COMPL.
BORING FOREMAN
INSPECTOR
SOILS ENGR.

LOCATION OF BORING: East of Tanks between Tanks and Island

DEPTH	Casing Blows per foot	Sample Depths From — To	Type of Sample	Blows per 6" on Sampler 0-6	6-12	12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc.	SAMPLE No.	Pen
									Augered to 15' with 4 1/4" Augers		
									Augered through fine sands and silt		
									Set well At 20'		
									materials used —		
									3 bags grade 2 Silica sand		
									15 lbs bentonite		
									10' .020 Screen 2" pvc		
									5' Riser 2" pvc		
									1 top wing type cap		
									1 bottom slip cap		
									1 protective casing (m-65)		
									40 lbs Cement		

GROUND SURFACE TO 15 USED 4 1/4 AUGERS: THEN Set well

Sample Type | Proportions Used | 140 lb. Wt. x 30" fall on 2" O. D. Sampler — Cohesionless Density | Cohesive Consistency | SUMMA[RY] Earth Boring

Green Mountain Boring Co., Inc.

R. D. 2 — BARRE, VERMONT 05641

SHEET 4 OF ...
DATE 11 [illegible] 90
HOLE NO. MW-4
LINE & STA. ...
OFFSET None

TO JUN'S Mobil
PROJECT NAME oil tanks
REPORT SENT TO JUN'S Mobil
SAMPLES SENT TO ...

ADDRESS Box 204 [illegible] VT
LOCATION [illegible] VT
PROJ. NO. ...
OUR JOB NO. ...

GROUND WATER OBSERVATIONS		CASING	SAMPLER	CORE BAR.
At 13' at 1/2 Hours [illegible]	Type	AUGERS	SPLIT SPOON	
	Size I. D.	4.25	1 3/8"	
	Hammer Wt.		140#	
At ... at ... Hours	Hammer Fall		30"	

SURFACE ELEV. ...
DATE STARTED 11 [illegible] 90
DATE COMPL. 11 [illegible] 90
BORING FOREMAN [illegible]
INSPECTOR ...
SOILS ENGR. ...

LOCATION OF BORING: East of Island Down Grade

DEPTH	Casing Blows per foot	Sample Depths From — To	Type of Sample	Blows per 6" on Sampler From 0-6	6-12	To 12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc.	SAMPLE No.	Pen
									Augered to 15' with 4.25" Augers		
									Augered through fine sands and Silt		
									Set well at 15'		
									materials used		
									3 bags grade 2 silica Sand		
									15 lbs bentonite		
									10' .020 screen 2" pvc		
									5' Riser 2" pvc		
									1 top wing type cap		
									1 bottom slip cap		
									1 protective casing ([illegible])		
									40 lbs cement		

GROUND SURFACE TO 15 USED 4.25" AUGERS: THEN set well

140 lb. Wt. x 30" fall on 2" O. D. Sampler

Sample Type | Proportions Used | Cohesionless Density | Cohesive Consistency | SUMMAR[Y] Earth Boring