

NOV 22 2000

MARIN

ENVIRONMENTAL

20 November 2000

Chuck Schwer
VI DEC
Waste Management Division
103 S. Main Street, West Building
Waterbury, VT 05671-0404

RE: *Initial Site Investigation
Bradley's Mobil, Montgomery, Vermont (SMS Site # 98-2478)*

Dear Mr. Schwer,

Enclosed is the client approved Initial Site Investigation Report for Bradley's Mobil in Montgomery, Vermont.

Please call me if you have any question or comments regarding this report.

Sincerely,

Marin Environmental, Inc.



Carey Hengstenberg
Environmental Scientist

ch/A00021103

Attachment

cc: Gene Pushee (cover letter only)

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**INITIAL SITE
INVESTIGATION**

**BRADLEY'S MOBIL
ROUTE 118
MONTGOMERY, VERMONT**

17 NOVEMBER 2000

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Reference No. A0-0028

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EXECUTIVE SUMMARY

Marin Environmental, Inc. (Marin) has conducted an initial site investigation (ISI) at Bradley's Mobil, located on Vermont Route 118 in Montgomery, Vermont. The ISI was requested by the Vermont Department of Environmental Conservation (VT DEC) following the removal of gasoline and diesel underground storage tanks (USTs) in October 1998. Approximately 250 cubic yards of soil was stockpiled and polyencapsulated on-site following the UST removals. The ISI included the installation of four monitoring wells, ground-water testing of the four new wells and two existing wells, soil stockpile screening and an evaluation of potential threats to nearby receptors. Marin's findings related to this work are summarized as follows:

- The ISI has adequately evaluated the degree and extent of subsurface petroleum contamination at the Bradley's Mobil site and has determined that the major source of petroleum contamination (250 cubic yards) was excavated during UST removals in 1998.
- Analytical results from sampling performed on 18 September 2000 indicate that dissolved-phase, petroleum-related volatile organic compounds (VOCs) are present in the shallow aquifer beneath the site.
- Total VOC concentrations ranged from 7 micrograms per liter ($\mu\text{g/L}$) in the ground-water sample collected from monitoring well MW-4, to 1,843 $\mu\text{g/L}$ in MW-1. Vermont Groundwater Enforcement Standards (VGESs) were exceeded for more than one petroleum-related VOC in MW-1 and MW-3 installed in the former gasoline and diesel source areas and MW-6 and MW-7 located down gradient of the source area.
- Concentrations of total petroleum hydrocarbons (TPH) for diesel range organics (DROs) ranged from 0.64 milligrams per liter (mg/L) in the ground-water sample collected from monitoring well MW-3 in the former diesel UST source area to non-detect above laboratory reporting limits in assumed downgradient monitoring well MW-5.
- Given the available data, the only sensitive receptor that may be at risk for petroleum-contaminant is the Trout River located 250 feet west of the site. No drinking water supply wells are known to exist in the vicinity of the site.
- To determine if groundwater VOC contamination has migrated off-site, additional monitoring would need to be installed on the downgradient and crossgradient properties.

EXECUTIVE SUMMARY

- Ground water in the unconfined surficial aquifer at the site is flowing northwest towards the Trout River. Depth to ground water measured in monitoring wells installed at the site ranged from seven to nine feet below ground surfaces (bgs).
- No VOCs were detected in the on-site soil stockpile using PID bag headspace screening techniques.

Based on all the data collected at the site to date, Marin recommends the following:

1. Monitoring wells MW-1, MW-3, MW-6 and MW-7 should continue to be monitored on a semi-annual basis for VOCs by EPA Method 8021B to confirm that VOC concentrations are decreasing and the source of contamination was removed during UST excavation activities. The next sampling event should occur in spring 2001.
2. The soil stockpile should continue to be monitored again in the spring of 2001 with a PID to confirm that VOC concentrations are below 1 ppm. If VOC concentrations are below 1 ppm, then confirmatory samples will be taken and analyzed for VOCs by EPA Method 8021B and TPH by EPA Method 8015 and soil pile should be considered for thin-spreading.
3. Once the contaminant concentrations in groundwater have fallen below the appropriate VGESs, and the soil stockpile has been thin-spread, the site will be considered for Sites management Activities Completed Designation (SMAC).
4. Upon completion of the semi-annual monitoring, a report should be prepared which includes a site plan, ground water elevation map, contaminant distribution map, soil stockpile PID results and identifies an appropriate course of action for the site.

1.0 INTRODUCTION

This report details the results of an Initial Site Investigation (ISI) performed by Marin Environmental, Inc. (Marin) at Bradley's Mobil, located on Vermont Route 118 in Montgomery, Vermont (Figure 1). This report has been prepared by Marin on behalf of Bradford Oil owner of the former underground storage tanks (UST). The ISI was requested in a letter from Chuck Schwer of the Vermont Department of Environmental Conservation (VT DEC), Sites Management Section (SMS) dated 21 August 2000.

1.1 *Site Description and Physical Setting*

The site is located on Vermont Route 118 in Montgomery, Vermont (Figure 1). One on-site structure, Bradley's Store is located on the property. The remainder of the property consists of asphalt and gravel parking areas. The site is bounded by Route 118 and residential property to the east, a garage and automobile storage area to the west, a garage to the south and a private residence to the north. Trout River flows northwest and is located approximately 250 feet west of the site.

Water is provided for the site and surrounding area by St. Onge L A Contractor, Inc from a well located over one mile from the site. According to St. Onge, a leachfield servicing Bradley's Store is located in the grass directly east of the store. In general, the ground surface at the site is relatively flat.

1.2 *Site History*

Subsurface petroleum contamination was discovered at Bradley's Mobil on 13 October 1998 during the removal of three gasoline underground USTs, two diesel USTs, one kerosene UST. The environmental site assessment for the UST closure was conducted by Marin and summarized in a report dated 30 October 2000. There were two areas of excavation: (1) two 6,000-gallon gasoline USTs and one 4,000-gallon gasoline UST,

located north of the store and (2) one 6,000-gallon diesel UST, one 4,000-gallon diesel UST and one 4,000-gallon kerosene UST located south of the store.

One monitoring well was reportedly installed in each excavation following UST removals. The average PID readings during UST removal activities were 851 parts per million (ppm) in excavation area one and 62 ppm in excavation area two. All USTs and associated piping which were installed in 1983 were found to be in fair condition with some rust and minor pitting during UST removal activities with the exception of the 4,000-gallon kerosene tank which was reported to be in poor condition with severe pitting.

Ground water was encountered in both excavations at approximately seven feet below ground surface (bgs). Approximately 60 cubic yards of soil were stockpiled on site. Two monitoring wells were installed during backfilling, one in each excavation area.

1.3 *Objectives and Scope of Work*

The objectives of this initial site investigation were to:

- evaluate the degree and extent of subsurface petroleum contamination at the site;
- qualitatively assess the risks to environmental and public health via relevant sensitive receptors and potential contaminant migration pathways; and
- identify potentially appropriate monitoring and/or remedial actions based on the site conditions.

To accomplish these objectives, Marin has:

- supervised the installation of four additional soil boring/monitoring wells at the site;

- screened subsurface soils from the soil borings for the possible presence of volatile organic compounds (VOCs) using a PID
- collected and submitted ground-water samples from six monitoring wells, for laboratory analysis of volatile petroleum compounds by EPA Method 8021B, and total petroleum hydrocarbons (TPH) by EPA Method 8015 diesel-range organics (DRO);
- identified sensitive receptors in the area, and assessed the risk posed by the contamination to these potential receptors;
- prepared this summary report, which details the work performed, qualitatively assesses risks, provides conclusions, and offers recommendations for further action.

2.0 INVESTIGATIVE PROCEDURES AND RESULTS

2.1 *Soil Boring / Monitoring Well Installation*

On 6 October 2000, Marin supervised the completion of four soil boring/monitoring wells (MW-4, MW-5, MW-6, and MW-7) to initially characterize contaminant and hydrogeologic conditions at the site (Figure 2). Monitoring well MW-4 was located in the presumed upgradient direction from the former UST areas, monitoring wells MW-5, MW-6 and MW-7 were installed in the presumed downgradient direction of the former USTs.

In general, silt and fine sand with some gravel was encountered during drilling to depths of approximately 15 feet bgs. During the boring program, ground water was encountered at the site at depths of approximately eight to nine feet bgs at MW-4, MW-5, MW-6 and MW-7.

The soil borings were installed using vibratory drilling techniques by Adams Engineering of Underhill, Vermont. Soil samples were collected continuously from each boring using a five-foot long core tube lined with polyethylene. Soil recovery was generally fair to excellent, ranging from 35 to 95 percent. All downhole drilling and sampling equipment was decontaminated during use, as appropriate.

The monitoring wells were constructed with 1.5-inch diameter, schedule 40 poly-vinyl chloride (PVC) with flush-threaded joints. Wells screens consisted of ten-foot sections of 0.010-inch factory slotted PVC. The tops of the screen sections were set five to six feet above the ground-water level. Sections of solid PVC were added to bring the tops of the well casings to approximately 0.5 feet bgs. Clean silica #1 filter sand was placed in the borehole annulus, above native backfill, around each well to approximately two feet above the slotted screen. A granular bentonite seal, approximately one-half to two feet thick, was set above the sand pack. Each completed monitoring well was protected by a flush-mounted steel roadbox cemented into place. Each well casing was topped with a

water-tight compression cap. See Appendix A for soil description and well construction details.

To remove fine-grained sediment, the monitoring wells were developed immediately after installation using a peristaltic pump. Development water was discharged directly to the ground surface in the vicinity of each well.

On 6 September 2000, the monitoring wells were surveyed relative to existing site features, with an azimuth accuracy of (\pm) 1.0 feet, and an elevation accuracy of (\pm) 0.01 feet.

2.2 *Soil-Screening Results*

PID readings at the monitoring well locations ranged from 0.0 ppm within the vadose zone to 530 ppm, recorded at eight feet bgs in MW-6 (See Appendix A). Soil samples were collected from discrete intervals in each boring and were descriptively logged and screened for the possible presence of VOCs with a Photovac Model 2020 PID equipped with a 10.6 eV lamp. The PID was calibrated on site prior to screening with 100 ppm isobutylene span gas, referenced to benzene. Soil samples were placed into a Ziploc bag, which was sealed and agitated. The PID probe was inserted into the bag headspace and the highest reading was recorded.

2.3 *Ground-Water Elevation Calculations and Flow Direction*

Based on the limited hydrogeologic data collected at the site to date, ground water in the unconfined surficial aquifer at the site appears to flow in a northwesterly direction, toward the Trout River with an average horizontal hydraulic gradient of less than one percent. The vertical ground-water flow components at the site and the hydraulic relationship between the overburden and bedrock aquifer are currently unknown. Additional data are necessary to adequately characterize hydrogeologic conditions at the site.

Fluid levels were measured in the on-site monitoring wells on 18 September 2000. Depths to water ranged from 7.72 (MW-7) to 9.94 feet (MW-4) below top-of-casing. No free-phase product was observed in any of the monitoring wells. Static water-table elevations were computed for each monitoring well by subtracting the measured or corrected depth-to-water readings from the surveyed top-of-casing elevations, which are relative to an arbitrary site datum of 100.00 feet. Water-level measurements and elevation calculations for 18 September 2000 are presented in Table 1; the water-table contour map prepared using these data is presented as Figure 3.

2.4 *Sampling and Analysis*

The four newly installed monitoring wells and two existing wells were sampled on 18 September 2000. Results received from Endyne, Inc. indicate that US EPA Method 8021B target compounds are present in ground water samples collected from MW-1, MW-3, MW-4, MW-5, MW-6 and MW-7. Groundwater Enforcement Standards¹ (VGESs) were exceeded for benzene, 1,3,5 Trimethyl Benzene (TMB), 1,2,4 – TMB and naphthalene in monitoring wells MW-1, MW-6 and MW-7. The VGESs for 1,3,5-TMB, 1,2,4-TMB and naphthalene were also exceeded in groundwater samples collected from MW-3.

Total dissolved-phase VOC concentrations in groundwater ranged from seven micrograms per liter ($\mu\text{g/L}$) in monitoring well MW-4 to 1,8410 $\mu\text{g/L}$ in MW-1. Concentrations of TPH for DROs ranged from 0.64 milligrams per liter (mg/L) in the ground-water sample collected from monitoring well MW-3, to non-detect below the report limit in MW-5. Analytical results are included in Table 2, and on the Contaminant-Distribution Map (Figure 4). Laboratory report forms are included in Appendix B. Photographs of the site are included in Appendix C.

¹ The Vermont DEC has established Groundwater Enforcement Standards (VGESs) for eight petroleum related VOCs, as follows: benzene - 5 $\mu\text{g/L}$; toluene - 1,000 $\mu\text{g/L}$; ethylbenzene - 700 $\mu\text{g/L}$; xylenes - 10,000 $\mu\text{g/L}$; MTBE, a gasoline additive, - 40 $\mu\text{g/L}$; naphthalene - 20 $\mu\text{g/L}$; 1,2,4 trimethyl benzene - 5 $\mu\text{g/L}$; and 1,3,5 trimethyl benzene - 4 $\mu\text{g/L}$.

The monitoring wells were purged and then sampled using dedicated bailers and dropline. Purge water was discharged directly to the ground in the vicinity of each well. Trip blank and duplicate samples were collected to ensure that adequate quality assurance/quality control (QA/QC) standards were maintained. All field procedures were conducted in accordance with Marin standard protocols.

All samples were transported under chain-of-custody in an ice-filled cooler to Endyne, Inc. of Williston, Vermont. All samples were analyzed for the possible presence of volatile petroleum compounds by EPA Method 8021B and TPH by EPA Method 8015 DRO. Analytical results from the QA/QC samples indicate that adequate QA/QC was maintained during sample collection and analysis. No petroleum compounds were detected in the trip blank. Analytical results for the blind field duplicate sample collected from MW-1 were within an average of 21 percent of the original sample results. A summary of QA/QC results is included in Table 1.

2.5 Soil Stockpile Monitoring

PID readings for VOCs on samples collected from the soil stockpile were at 0.0 ppm. Table 3 illustrates the sample locations and corresponding PID readings.

On 18 September 2000, the soil stockpile encapsulation was found to be in good condition. However, there appears to be a second polyethylene layer approximately one foot below the top of the pile.

Seven samples were collected from depths of 1.5 – 2.0 feet in the pile using a stainless steel auger. The soil stockpile is approximately 250 cubic yards in size and stands five and a half to six feet high. Each sample was placed into a polyethylene bag, which was sealed, agitated, and allowed to equilibrate prior to headspace screening. PID readings were measured using a PE Photovac Model 2020 PID, which was calibrated with isobutylene to a benzene reference.

3.0 SENSITIVE RECEPTOR SURVEY AND RISK ASSESSMENT

3.1 *Sensitive Receptor Survey*

Marin conducted a survey to identify sensitive receptors in the vicinity of the former Bradley's Mobil that could potentially be impacted by contamination associated with the site. The following sensitive receptors were identified in the vicinity of the property.

- One garage building is located in the apparent downgradient direction and a residence is located cross-gradient of the site, both structures do not appear to have basement. The on-site building, Bradley's Store, does not have a basement.
- The Trout River is located approximately 250 feet west of the site. The Trout River appears to be the surface discharge point for ground water flowing beneath the site.

3.2 *Risk Assessment*

On the basis of the information obtained during this investigation, Marin has qualitatively assessed the risks that the subsurface contamination poses to human health and the environment. Our findings are as follows:

- The risks posed to the Trout River cannot be adequately evaluated at this time, because the downgradient extent of subsurface contamination has not been determined.
- The risk of human ingestion or contact with contaminated ground water appears to be very low. The ground water table is greater than five feet bgs and all drinking water used in the surrounding area is provided by a private water supply company, St. Onge L A Contractors, Inc. No private or public drinking-water supply wells were identified in the immediate vicinity of the site.
- The risk of vapor entry into subsurface utilities appears minimal because no utilities appear to be in the downgradient direction of the site.

4.0 CONCLUSIONS

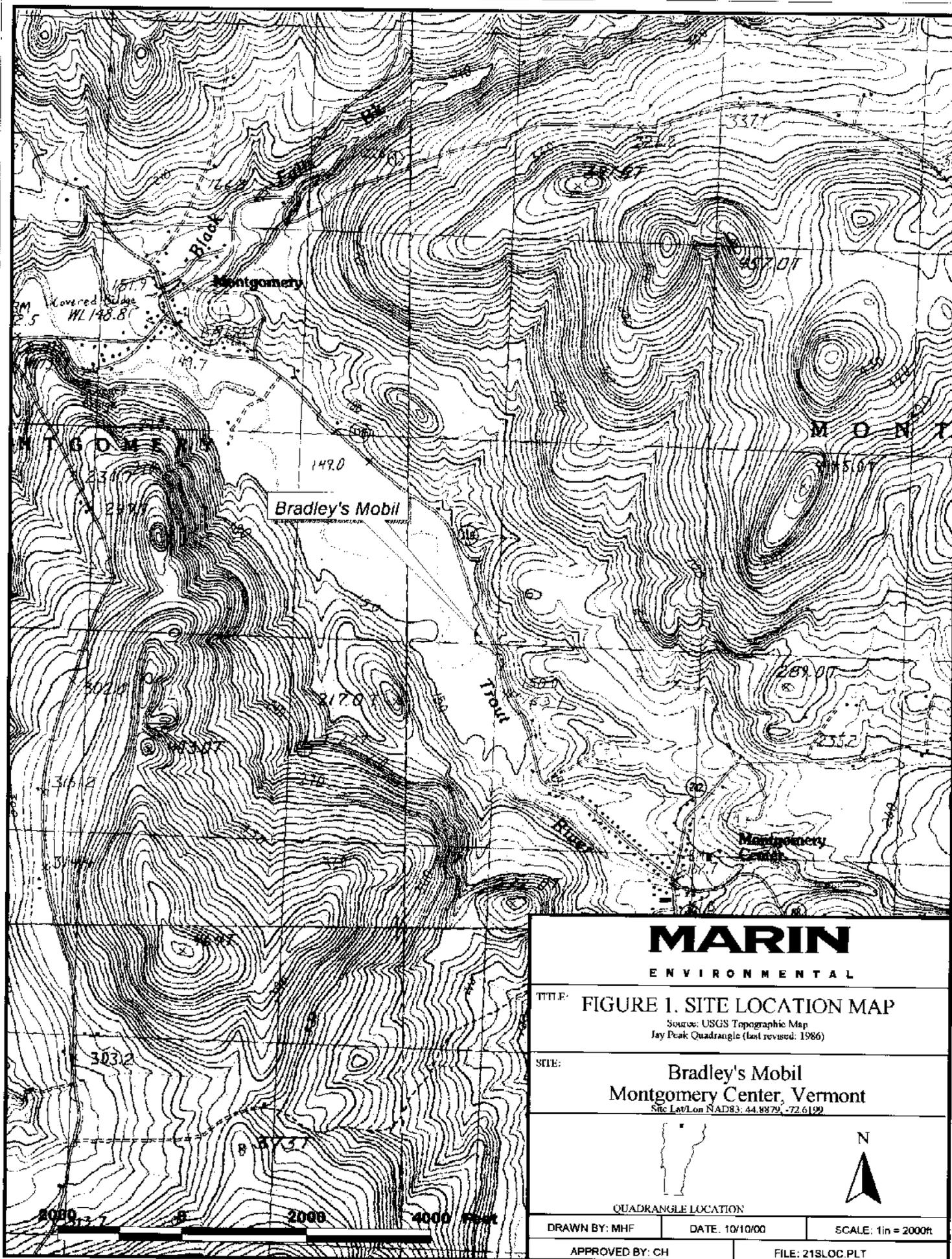
Based on the results of the ISI described above, Marin concludes the following:

- The ISI has adequately evaluated the degree and extent of subsurface petroleum contamination at the Bradley's Mobil site and has determined that the major source of petroleum contamination (250 cubic yards) was excavated during UST removals in 1998.
- Analytical results from sampling performed on 18 September 2000 indicate that dissolved-phase, petroleum-related volatile organic compounds (VOCs) are present in the shallow aquifer beneath the site.
- Total VOC concentrations ranged from 7 micrograms per liter ($\mu\text{g/L}$) in the ground-water sample collected from monitoring well MW-4, to 1,843 $\mu\text{g/L}$ in MW-1. Vermont Groundwater Enforcement Standards (VGESs) were exceeded for more than one petroleum-related VOC in MW-1 and MW-3 installed in the former gasoline and diesel source areas and MW-6 and MW-7 located down gradient of the source area.
- Concentrations of total petroleum hydrocarbons (TPH) for diesel range organics (DROs) ranged from 0.64 milligrams per liter (mg/L) in the ground-water sample collected from monitoring well MW-3 in the former diesel UST source area to non-detect above laboratory reporting limits in assumed downgradient monitoring well MW-5.
- Given the available data, the only sensitive receptor that may be at risk for petroleum-contaminant is the Trout River located 250 feet west of the site. No drinking water supply wells are known to exist in the vicinity of the site.
- To determine if groundwater VOC contamination has migrated off-site, additional monitoring would need to be installed on the downgradient and crossgradient properties.
- Ground water in the unconfined surficial aquifer at the site is flowing northwest towards the Trout River. Depth to ground water measured in monitoring wells installed at the site ranged from seven to nine feet below ground surfaces (bgs).
- No VOCs were detected in the on-site soil stockpile using PID bag headspace screening techniques.

5.0 RECOMMENDATIONS

On the basis of the results of this investigation and the conclusions stated above, Marin recommends the following:

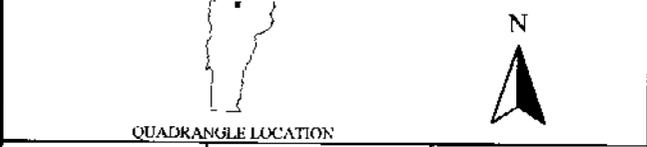
1. Monitoring wells MW-1, MW-3, MW-6 and MW-7 should continue to be monitored on a semi-annual basis for VOCs by EPA Method 8021B to confirm that VOC concentrations are decreasing and the source of contamination was removed during UST excavation activities. The next sampling event should occur in Spring 2001.
2. The soil stockpile should continue to be monitored again in the spring of 2001 with a PID to confirm that VOC concentrations are below 1 ppm. If VOC concentrations are below 1 ppm, then confirmatory samples will be taken and analyzed for VOCs by EPA Method 8021B and TPH by EPA Method 8015 and soil pile should be considered for thin-spreading.
3. Once the contaminant concentrations in groundwater have fallen below the appropriate VGESs, and the soil stockpile has been thin-spread, the site will be considered for Sites management Activities Completed Designation (SMAC).
4. Upon completion of the semi-annual monitoring, a report should be prepared which includes a site plan, ground water elevation map, contaminant distribution map, soil stockpile PID results and identifies an appropriate course of action for the site.



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TITLE: **FIGURE 1. SITE LOCATION MAP**
Source: USGS Topographic Map
Jay Peak Quadrangle (last revised: 1986)

SITE: **Bradley's Mobil**
Montgomery Center, Vermont
Site Lat/Lon NAD83: 44.8379, -72.6192



QUADRANGLE LOCATION

DRAWN BY: MHF	DATE: 10/10/00	SCALE: 1in = 2000ft
APPROVED BY: CH	FILE: 21SLOC.PLT	

APPROXIMATE PROPERTY BOUNDARY

TP ●

MW-7

FORMER GASOLINE UST
EXCAVATION #1

MW-1

MW-2

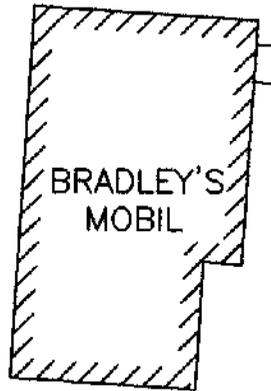
MW-6

DISPENSER

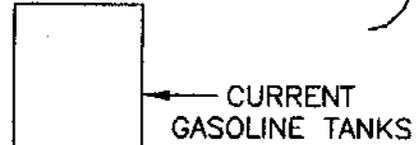
LINE OF TREES
GRASSY AREA

VT ROUTE 118

MW-4



BRADLEY'S
MOBIL



CURRENT
GASOLINE TANKS

MW-5



SOIL
STOCKPILE

FORMER DIESEL
& KEROSENE UST
EXCAVATION #2

MW-3



DIESEL
AST

KEROSENE
AST



TROUT RIVER
APROX. 250 ft.

ALL LOCATIONS ARE APPROXIMATE

LEGEND

MW-2 ● MONITORING WELL

TP ● TELEPHONE POLE



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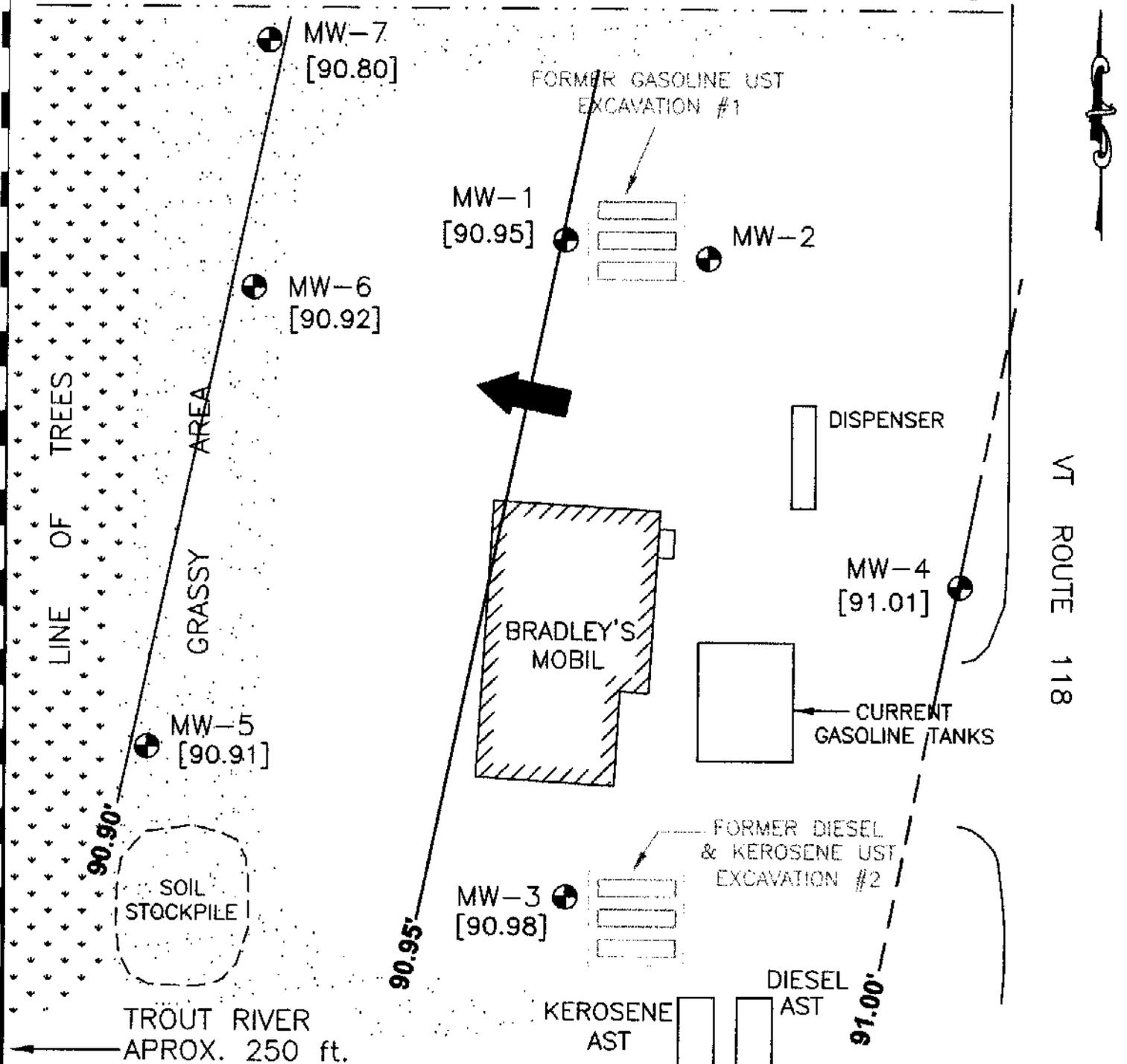
FIGURE 2.
SITE PLAN
WITH MONITORING WELL LOCATIONS

Bradley's Mobile
Montgomery, VT

DRAWN BY: MHF	DATE: 11/08/00	SCALE: 1" = 30'
APPROVED BY: CH	FILE No.: VTA00021sp	

APPROXIMATE PROPERTY BOUNDARY

TP



LEGEND

- MW-2 ● MONITORING WELL
- TP ● TELEPHONE POLE
- [90.98] GROUND WATER ELEVATION (FT.)
- 91.0' — GROUND WATER ELEVATION CONTOUR (FT.)
- ← INFERRED GROUND WATER FLOW DIRECTION



ALL LOCATIONS ARE APPROXIMATE

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FIGURE 3.
GROUNDWATER CONTOUR MAP

Monitoring Date: 18 September 2000

Bradley's Mobile
Montgomery, VT

DRAWN BY: MHF	DATE: 11/08/00	SCALE: 1" = 30'
APPROVED BY: CH	FILE No.: VTA00021sp	

APPROXIMATE PROPERTY BOUNDARY

TP ●

MW-7
Total VOCS=187

FORMER GASOLINE UST
EXCAVATION #1

MW-1
Total VOCS=1,841

MW-2

MW-6
Total VOCS=435
TPH=ND<0.4

DISPENSER

MW-4
Total VOCS=7

MW-5
Total VOCS=9

CURRENT
GASOLINE TANKS

BRADLEY'S
MOBIL

MW-3
Total VOCS=85
TPH=0.64

FORMER DIESEL
& KEROSENE UST
EXCAVATION #2

DIESEL
AST

KEROSENE
AST

SOIL
STOCKPILE

TROUT RIVER
APROX. 250 ft.

LEGEND

- MW-2 ● MONITORING WELL
- TP ● TELEPHONE POLE
- Total VOCS=85 VOLATILE ORGANIC COMPOUNDS, (µg/L)
- TPH=0.64 TOTAL PETROLEUM HYDROCARBONS, (µg/L)
- ND NONE DETECTED



ALL LOCATIONS ARE APPROXIMATE

VT ROUTE 118

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FIGURE 4.
CONTAMINANT DISTRIBUTION MAP
Monitoring Date: 18 SEPTEMBER 2000

Bradley's Mobile
Montgomery, VT

DRAWN BY: MHF	DATE: 11/08/00	SCALE: 1" = 30'
APPROVED BY: CH	FILE No.: VTA00021sp	

TABLES

TABLE 1. GROUND-WATER ELEVATION CALCULATIONS

**Bradley's Mobil
Montgomery, Vermont**

09/18/00

Well I.D.	Top of Casing Elevation	Depth to Water	Groundwater Elevation
MW-1	100.00	9.05	90.95
MW-2	100.31	--	--
MW-3	100.73	9.75	90.98
MW-4	100.95	9.94	91.01
MW-5	98.99	8.08	90.91
MW-6	98.90	7.98	90.92
MW-7	98.52	7.72	90.80

Notes:

All values reported in feet relative to arbitrary datum of 100.00 feet
MW-2- depth to ground water not measured 9/18/00

TABLE 2. ANALYTICAL RESULTS - 18 September 2000

**Bradley's Mobil
Montgomery, Vermont**

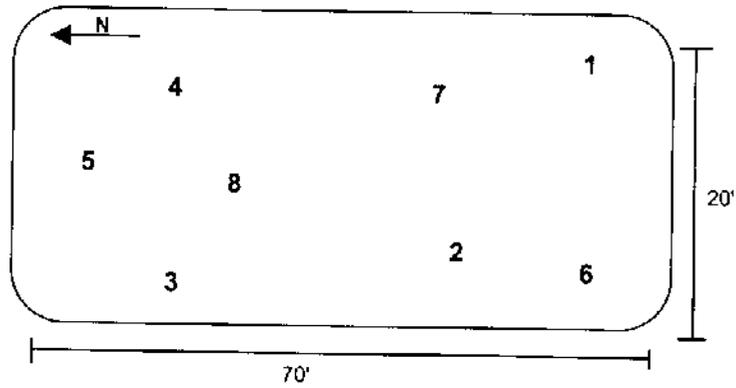
Location	Benzene	Toluene	Ethyl benzene	Xylenes	1,3,5 TMB	1,2,4 TMB	Napth-alene	MTBE	Total VOCs	TPH
units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
MW-1	38.4	53.0	332	982	79.1	258	65.7	32.8	1,841	NS
MW-3	2.0	ND<1	13.4	8.6	7.5	27.3	25.7	ND<10	85	0.64
MW-4	1.8	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	4.9	7	NS
MW-5	ND<1	ND<1	ND<1	5	ND<1	4.1	ND<1	ND<1	9	ND<0.4
MW-6	9.8	17.4	34.5	154	42.2	125	32.1	20.4	435	NS
MW-7	8.4	ND<1	7.1	82.3	10.0	48.5	23.1	8	187	NS
VGES	5	1,000	700	10,000	4	5	20	40	11,774	--

MW-6	9.8	17.4	34.5	154	42.2	125	32.1	20.4	435	--
Duplicate (MW-8)	ND<5	11.9	24.4	107	36.6	107	26.6	22.5	336	--
% Difference	N/A	31.6	29.3	30.5	13.3	14.4	17.1	10.3	--	--
Trip Blank	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1	ND	--

Notes: Results given in micrograms per liter µg/L, unless noted otherwise.
 ND: None detected at indicated detection limit.
 NS: Not sampled
 VGES: Vermont Groundwater Enforcement Standards
 -- : not applicable

Table 3
Soil Stockpile Sampling Locations and PID Readings

Bradley's Mobil
Montgomery, VT



Note: Figure not to scale
All locations are approximate

Sample	Depth (feet)	PID (ppm)
1	1.5	0.0
2	1.5	0.0
3	2.0	0.0
4	1.5	0.0
5	2.0	0.0
6	1.5	0.0
7	2.0	0.0
8	2.0	0.0
	Average	0.0

APPENDIX A

**BORING LOGS/MONITORING WELL CONSTRUCTION
DIAGRAMS**

MARIN

ENVIRONMENTAL

73 MILLET STREET (802) 434-4500
 RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

BORING / WELL IDENTIFICATION: MW-4

SITE NAME: Bradley's Mobil

SITE LOCATION: Montgomery, VT

INSTALLATION DATE: 5 September 2000

JOB NUMBER: VTA0-0021

WELL DEPTH:	15.0 ft bgs	BORING DEPTH:	15.0 ft bgs	MARIN REPRESENTATIVE:	Carcy Hengstenberg
DEPTH TO WATER (DURING DRILLING):	approximately 9.7 ft bgs			DRILLING COMPANY:	Adams Engineering Underhill, VT
SCREEN DIAMETER:	1.5 -inch	DEPTH:	5.0-15.0 ft bgs	SAMPLING METHOD:	Vibratory
SCREEN TYPE/SIZE:	0.010 slot schedule 40 PVC			REFERENCE POINT (RP):	Grade
RISER DIAMETER:	1.5-inch	DEPTH:	0- 5.0 ft bgs	ELEVATION OF RP:	not measured
RISER TYPE/SIZE:	Schedule 40 PVC				

REMARKS: Well was completed with sand backfill to 2.0 ft above top of screen, sealed with bentonite to 1.0 feet below grade. Well was set with a flush mounted road-box.

DEPTH (IN FEET)	SAMPLE DEPTH (FT)	BLOWS/6" AND RECOVERY	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND		
0	0-5 ft	2.0 ft recovery	0-2.0: Brown, fine to coarse SAND, some gravel; dry, no odor	0.0		<ul style="list-style-type: none"> Concrete Native Material Bentonite Filter Sand Riser Screen Water Level 		
1								
2								
3								
4								
5	5-10 ft	1.7 ft recovery	5.0-6.7: Brownish-grey fine SAND and silt, little clay, little gravel; dry, no odor	0.5				
6								
7								
8								
9								
10	10-15 ft	3.0 ft recovery	10.0-11.5: Brown fine SAND and silt, little clay, little gravel; wet, no odor	0.5				
11								
12								
13								
14								
15								
16							End of Sampling = 15.0 feet End of Boring = 15.0 feet	0.5
17								
18								
19								
20								
21								
22								
23								
24								
25								

PROPORTIONS USED AND 33-50% SOME 20-33% LITTLE 10-20% TRACE 0-10%	<2 BLOW COUNT (COHESIVE SOILS) VERY SOFT	0-4 BLOW COUNT (GRANULAR SOILS) VERY LOOSE	Notes:
	2-4 SOFT 4-8 MEDIUM STIFF 8-15 STIFF 15-30 VERY STIFF >30 HARD	4-10 LOOSE 10-30 MEDIUM DENSE 30-50 DENSE >50 VERY DENSE	

MARIN

ENVIRONMENTAL

73 MILLET STREET (802) 434-4500
 RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

BORING / WELL IDENTIFICATION: MW-5

SITE NAME: Bradley's Mobil

SITE LOCATION: Montgomery, VT

INSTALLATION DATE: 5 September 2000

JOB NUMBER: VTA0-0021

WELL DEPTH:	14.0 ft bgs	BORING DEPTH:	15.0 ft bgs	MARIN REPRESENTATIVE:	Carey Hengstenberg
DEPTH TO WATER (DURING DRILLING):	approximately 8.7 ft bgs			DRILLING COMPANY:	Adams Engineering Underhill, VT
SCREEN DIAMETER:	1.5 -inch	DEPTH:	4.0-14.0 ft bgs	SAMPLING METHOD:	Vibratory
SCREEN TYPE/SIZE:	0.010 slot schedule 40 PVC			REFERENCE POINT (RP):	Grade
RISER DIAMETER:	1.5-inch	DEPTH:	0- 5.0 ft bgs	ELEVATION OF RP:	not measured
RISER TYPE/SIZE:	Schedule 40 PVC				
REMARKS:	Well was completed with sand backfill to 1.5 ft above top of screen, sealed with bentonite to 1.0 feet below grade. Well was set with a flush mounted road-box.				

DEPTH (IN FEET)	SAMPLE DEPTH (FT)	BLOWS/6" AND RECOVERY	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND	
0	0-5 ft	2.5 ft recovery	0-1.5: Brown, SILT and fine SAND; dry, no odor	1.5		Concrete	
1			1.5-2.0: Brown medium SAND; dry, no odor			Native Material	
2			2.0-2.5: Brown SILT ; some fine SAND, dense, dry, no odor			Bentonite	
3							Filter Sand
4				Riser			
5	5-10 ft	5.0 ft recovery	5.0-10.0: Brownish-grey SILT; some fine sand; dry, no odor. Moist at 7.0 feet.	0.5		Screen	
6							Water Level
7							
8							
9	10-15 ft	2.3 ft recovery	10.0-11.0: Brownish-grey SILT, some fine sand	2.0			
10			11.0-12.3: brown fine to coarse SAND and GRAVEL				
11							
12							
13							
14							
15					End of Sampling = 15.0 feet End of Boring = 15.0 feet		
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

PROPORTIONS USED AND 33-50% SOME 20-33% LITTLE 10-20% TRACE 0-10%	BLOW COUNT (COHESIVE SOILS) <2 VERY SOFT 2-4 SOFT 4-8 MEDIUM STIFF 8-15 STIFF 15-30 VERY STIFF >30 HARD	BLOW COUNT (GRANULAR SOILS) 0-4 VERY LOOSE 4-10 LOOSE 10-30 MEDIUM DENSE 30-50 DENSE >50 VERY DENSE	Notes
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MARIN

ENVIRONMENTAL

73 MILLET STREET (802) 434-4500
 RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

BORING / WELL IDENTIFICATION: MW-6

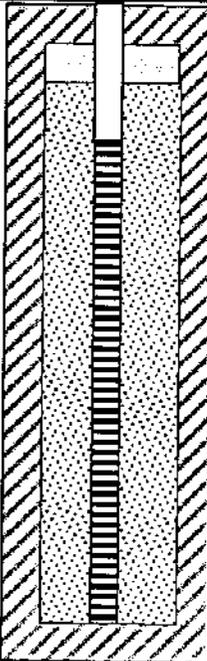
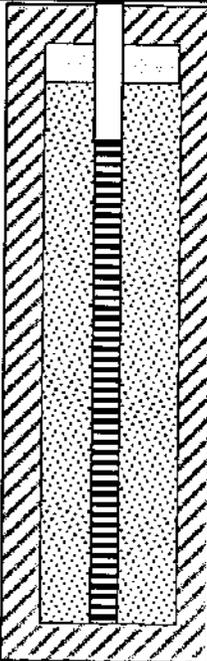
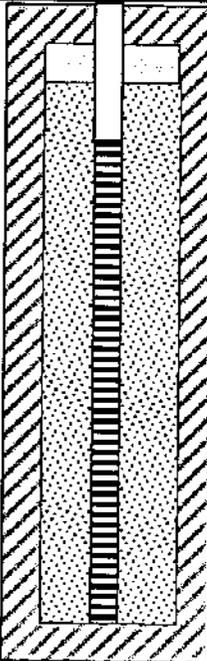
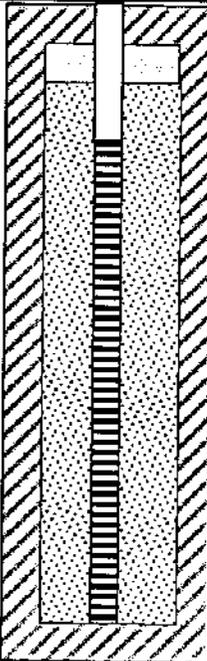
SITE NAME: Bradley's Mobil

SITE LOCATION: Montgomery, VT

INSTALLATION DATE: 5 September 2000

JOB NUMBER: VTA0-0021

WELL DEPTH:	13.0 ft bgs	BORING DEPTH:	13.0 ft bgs	MARIN REPRESENTATIVE:	Carey Hengstenberg
DEPTH TO WATER (DURING DRILLING):	approximately 7.0 ft bgs			DRILLING COMPANY:	Adams Engineering Underhill, VT
SCREEN DIAMETER:	1.5 -inch	DEPTH:	3.0-13.0 ft bgs	SAMPLING METHOD:	Vibratory
SCREEN TYPE/SIZE:	0.010 slot schedule 40 PVC			REFERENCE POINT (RP):	Grade
RISER DIAMETER:	1.5-inch	DEPTH:	0- 3.0 ft bgs	ELEVATION OF RP:	not measured
RISER TYPE/SIZE:	Schedule 40 PVC				
REMARKS:	Well was completed with sand backfill to 1.0 ft above top of screen, sealed with bentonite to 1.0 feet below grade. Well was set with a flush mounted road-box.				

DEPTH (IN FEET)	SAMPLE DEPTH (FT)	BLOWS/6" AND RECOVERY	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND	
0	0-5 ft	3.0 ft recovery	0-2.0: Brown, fine SAND, trace silt; dry, no odor	0.0		<ul style="list-style-type: none">  Concrete  Native Material  Bentonite  Filter Sand  Riser  Screen  Water Level 	
1							
2							2.0-3.0: Brown SILT; some fine SAND, dense, dry, no odor
3	5-10 ft	4.7 ft recovery	5.0-8.5: Brown SILT, some fine sand, trace gravel, trace coarse sand, organics; dry, no odor. Moist at	225		<ul style="list-style-type: none">  Concrete  Native Material  Bentonite  Filter Sand  Riser  Screen  Water Level 	
4							
5							
6							
7	10-15 ft	2.7 ft recovery	8.5-9.7: Brownish-grey fine to coarse SAND, trace gravel, strong petroleum odor, wet	530		<ul style="list-style-type: none">  Concrete  Native Material  Bentonite  Filter Sand  Riser  Screen  Water Level 	
8							
9							
10							
11							
12			10.0-10.5: Brownish-grey SILT, some fine sand; wet	463		<ul style="list-style-type: none">  Concrete  Native Material  Bentonite  Filter Sand  Riser  Screen  Water Level 	
13			10.5-12.7: Brown fine to coarse SAND, some gravel; wet, petroleum odor.				
14							
15			End of Sampling = 13.0 feet End of Dring = 13.0 feet				
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

PROPORTIONS USED AND 33-50% SOME 20-33% LITTLE 10-20% TRACE 0-10%	BLOW COUNT (COHESIVE SOILS)		BLOW COUNT (GRANULAR SOILS)		Notes:
	<2 2-4 4-8 8-15 15-30 >30	VERY SOFT SOFT MEDIUM STIFF STIFF VERY STIFF HARD	0-4 4-10 10-30 30-50 >50	VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	

MARIN

ENVIRONMENTAL

73 MILLET STREET (802) 434-4500
 RICHMOND, VERMONT 05477 (802) 434-6076 - FAX

BORING / WELL IDENTIFICATION: MW-7

SITE NAME: Bradley's Mobil

SITE LOCATION: Montgomery, VT

INSTALLATION DATE: 5 September 2000

JOB NUMBER: VTA0-0021

WELL DEPTH:	14.0 ft bgs	BORING DEPTH:	15.0 ft bgs	MARIN REPRESENTATIVE:	Carey Hengstenberg
DEPTH TO WATER (DURING DRILLING):	approximately 8.7 ft bgs			DRILLING COMPANY:	Adams Engineering Underhill, VT
SCREEN DIAMETER:	1.5 -inch	DEPTH:	4.0-14.0 ft bgs	SAMPLING METHOD:	Vibratory
SCREEN TYPE/SIZE:	0.010 slot schedule 40 PVC			REFERENCE POINT (RP):	Grade
RISER DIAMETER:	1.5-inch	DEPTH:	0- 4.0 ft bgs	ELEVATION OF RP:	not measured
RISER TYPE/SIZE:	Schedule 40 PVC				

REMARKS: Well was completed with sand backfill to 1.5 ft above top of screen, sealed with bentonite to 1.0 feet below grade. Well was set with a flush mounted road-box.

DEPTH (IN FEET)	SAMPLE DEPTH (FT)	BLOWS/6" AND RECOVERY	SAMPLE DESCRIPTION AND NOTES	PID (PPM)	WELL PROFILE	LEGEND	
0	0-5 ft	3.0 ft recovery	0-1.0: Brown SILT and fine sand; dry, no odor	1.0		<ul style="list-style-type: none"> Concrete Native Material Bentonite Filter Sand Riser Screen Water Level 	
1							1.0-3.0: brown fine to coarse SAND, some gravel, organics, pieces of plastic; dry, no odor.
2							
3							
4	5-10 ft	1.5 ft recovery	5.0-6.5: Brown fine to coarse SAND, some gravel, pieces of wood; dry, no odor.	1.0			
5							
6							
7							
8	10-15 ft	1.0 ft recovery	10.0-10.5: Brown fine to coarse SAND, some gravel; dry no odor	3.0			
9							10.5-11.0: brown fine SAND, wet
10							
11							
12							
13							
14							
15			End of Sampling = 14.0 feet				
16			End of Boring = 14.0 feet				
17							
18							
19							
20							
21							
22							
23							
24							
25							

PROPORTIONS USED AND 33-50% SOME 20-33% LITTLE 10-20% TRACE 0-10%	BLOW COUNT (COHESIVE SOILS) <2 VERY SOFT 2-4 SOFT 4-8 MEDIUM STIFF 8-15 STIFF 15-30 VERY STIFF >30 HARD	BLOW COUNT (GRANULAR SOILS) 0-4 VERY LOOSE 4-10 LOOSE 10-30 MEDIUM DENSE 30-50 DENSE >50 VERY DENSE	Notes:
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APPENDIX B

LABORATORY REPORT FORMS



ENDYNE, INC.

Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

Marin Environmental
73 Millet Street
Richmond, VT 05477
Attn: Carey H

PROJECT: Bradley's Mobil/#A00021-160
ORDER ID: 9399
RECEIVE DATE: September 19, 2000
REPORT DATE: September 29, 2000

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

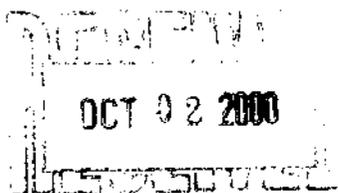
Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which include matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures





LABORATORY REPORT

CLIENT: Marin Environmental
PROJECT: Bradley's Mobil/#A00021-160
REPORT DATE: September 29, 2000

ORDER ID: 9399
DATE RECEIVED: September 19, 2000
SAMPLER: HL
ANALYST: 128

Ref. Number: 162282 Site: MW-3 Date Sampled: September 18, 2000 Time: 2:20 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	0.64	mg/L	SW 8015B	9/27/00

Ref. Number: 162284 Site: MW-5 Date Sampled: September 18, 2000 Time: 2:30 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
TPH 8015 DRO	< 0.40	mg/L	SW 8015B	9/27/00

CHAIN-OF-CUSTODY-RECORD

38798

(VT A000 21 - 160)

1/2

Project Name: BRADLEY'S MOBIL		Reporting Address: 73 Miller ST RICHMOND, VT		Billing Address: MARIN	
Endyne Order ID: (Lab Use Only)	2-0 9399	Company: MARIN	Sampler Name: H. LADUKE		
	-I	Contact Name/Phone #:	Phone #:		
	-S	CAREN H. 802 434-4500			

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
162280	TRIP	QW	X		9-1800	2	40ml vial	DISTILLED WATER	8021b	HCL	
162281	MW1	QW			1415						
162282	MW3				1420						
	MW3				1420				805DRO		
162283	MW4				1425				8021b	HCL	
162284	MW5				1430						
	MW5				1430				805DRO		
162285	MW6				1435				8021b	HCL	
162286	MW7				1440						
162287	MW8				1445						

Relinquished by: <i>Heather Laduke</i>	Date/Time	Received by: <i>[Signature]</i>	Date/Time 2:14 PM	Received by: <i>A. Plouffe</i>	Date/Time 9/19/00 2:15
---	-----------	------------------------------------	-----------------------------	-----------------------------------	--------------------------------------

New York State Project: Yes No

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	
Metals (As, Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sr, Ti, Tl, V, Zn											
(Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)											
33											



ENDYNE, INC.

Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

Marin Environmental
73 Millet Street
Richmond, VT 05477
Attn: Carey H

PROJECT: Bradley's Mobil/#A00021-160
ORDER ID: 9399
RECEIVE DATE: September 19, 2000
REPORT DATE: October 2, 2000

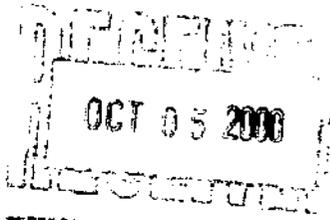
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Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which include matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted



Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures



160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CLIENT: Marin Environmental
PROJECT: Bradley's Mobil/#A00021-160
DATE RECEIVED: September 19, 2000
REPORT DATE: October 2, 2000

ORDER ID: 9399
ANAL. METHOD: SW 8021B
SAMPLER: HL
ANALYST: 917

Site: Trip Ref. Number: 162280 Date Sampled: 9/18/00 Time Sampled: 8:00 AM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>< 1.0</td></tr> <tr><td>Benzene</td><td>< 1.0</td></tr> <tr><td>Toluene</td><td>< 1.0</td></tr> <tr><td>Ethylbenzene</td><td>< 1.0</td></tr> <tr><td>Xylenes, Total</td><td>< 1.0</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>< 1.0</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>< 1.0</td></tr> <tr><td>Naphthalene</td><td>< 1.0</td></tr> <tr><td>UIP's</td><td>0.</td></tr> <tr><td>Surrogate 1</td><td>106.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	< 1.0	Benzene	< 1.0	Toluene	< 1.0	Ethylbenzene	< 1.0	Xylenes, Total	< 1.0	1,3,5 Trimethyl Benzene	< 1.0	1,2,4 Trimethyl Benzene	< 1.0	Naphthalene	< 1.0	UIP's	0.	Surrogate 1	106.%	Site: MW 4 Ref. Number: 162283 Date Sampled: 9/18/00 Time Sampled: 2:25 PM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>4.9</td></tr> <tr><td>Benzene</td><td>1.8</td></tr> <tr><td>Toluene</td><td>< 1.0</td></tr> <tr><td>Ethylbenzene</td><td>< 1.0</td></tr> <tr><td>Xylenes, Total</td><td>< 1.0</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>< 1.0</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>< 1.0</td></tr> <tr><td>Naphthalene</td><td>< 1.0</td></tr> <tr><td>UIP's</td><td>8.</td></tr> <tr><td>Surrogate 1</td><td>99.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	4.9	Benzene	1.8	Toluene	< 1.0	Ethylbenzene	< 1.0	Xylenes, Total	< 1.0	1,3,5 Trimethyl Benzene	< 1.0	1,2,4 Trimethyl Benzene	< 1.0	Naphthalene	< 1.0	UIP's	8.	Surrogate 1	99.%	Site: MW 7 Ref. Number: 162286 Date Sampled: 9/18/00 Time Sampled: 2:40 PM Analysis Date: 9/22/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>7.6</td></tr> <tr><td>Benzene</td><td>8.4</td></tr> <tr><td>Toluene</td><td>< 1.0</td></tr> <tr><td>Ethylbenzene</td><td>7.1</td></tr> <tr><td>Xylenes, Total</td><td>82.3</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>10.0</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>48.5</td></tr> <tr><td>Naphthalene</td><td>23.1</td></tr> <tr><td>UIP's</td><td>> 10.</td></tr> <tr><td>Surrogate 1</td><td>96.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	7.6	Benzene	8.4	Toluene	< 1.0	Ethylbenzene	7.1	Xylenes, Total	82.3	1,3,5 Trimethyl Benzene	10.0	1,2,4 Trimethyl Benzene	48.5	Naphthalene	23.1	UIP's	> 10.	Surrogate 1	96.%
Parameter	Results ug/L																																																																			
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1,3,5 Trimethyl Benzene	< 1.0																																																																			
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Xylenes, Total	82.3																																																																			
1,3,5 Trimethyl Benzene	10.0																																																																			
1,2,4 Trimethyl Benzene	48.5																																																																			
Naphthalene	23.1																																																																			
UIP's	> 10.																																																																			
Surrogate 1	96.%																																																																			
Site: MW 1 Ref. Number: 162281 Date Sampled: 9/18/00 Time Sampled: 2:15 PM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>32.8</td></tr> <tr><td>Benzene</td><td>38.4</td></tr> <tr><td>Toluene</td><td>53.0</td></tr> <tr><td>Ethylbenzene</td><td>332</td></tr> <tr><td>Xylenes, Total</td><td>982.</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>79.1</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>258.</td></tr> <tr><td>Naphthalene</td><td>65.7</td></tr> <tr><td>UIP's</td><td>> 10.</td></tr> <tr><td>Surrogate 1</td><td>95.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	32.8	Benzene	38.4	Toluene	53.0	Ethylbenzene	332	Xylenes, Total	982.	1,3,5 Trimethyl Benzene	79.1	1,2,4 Trimethyl Benzene	258.	Naphthalene	65.7	UIP's	> 10.	Surrogate 1	95.%	Site: MW-5 Ref. Number: 162284 Date Sampled: 9/18/00 Time Sampled: 2:30 PM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>< 1.0</td></tr> <tr><td>Benzene</td><td>< 1.0</td></tr> <tr><td>Toluene</td><td>< 1.0</td></tr> <tr><td>Ethylbenzene</td><td>< 1.0</td></tr> <tr><td>Xylenes, Total</td><td>4.9</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>< 1.0</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>4.1</td></tr> <tr><td>Naphthalene</td><td>< 1.0</td></tr> <tr><td>UIP's</td><td>> 10.</td></tr> <tr><td>Surrogate 1</td><td>107.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	< 1.0	Benzene	< 1.0	Toluene	< 1.0	Ethylbenzene	< 1.0	Xylenes, Total	4.9	1,3,5 Trimethyl Benzene	< 1.0	1,2,4 Trimethyl Benzene	4.1	Naphthalene	< 1.0	UIP's	> 10.	Surrogate 1	107.%	Site: MW 8 Ref. Number: 162287 Date Sampled: 9/18/00 Time Sampled: 2:45 PM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>22.5</td></tr> <tr><td>Benzene</td><td>< 5.0</td></tr> <tr><td>Toluene</td><td>11.9</td></tr> <tr><td>Ethylbenzene</td><td>24.4</td></tr> <tr><td>Xylenes, Total</td><td>107</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>36.6</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>107.</td></tr> <tr><td>Naphthalene</td><td>26.6</td></tr> <tr><td>UIP's</td><td>> 10.</td></tr> <tr><td>Surrogate 1</td><td>106.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	22.5	Benzene	< 5.0	Toluene	11.9	Ethylbenzene	24.4	Xylenes, Total	107	1,3,5 Trimethyl Benzene	36.6	1,2,4 Trimethyl Benzene	107.	Naphthalene	26.6	UIP's	> 10.	Surrogate 1	106.%
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Site: MW-3 Ref. Number: 162282 Date Sampled: 9/18/00 Time Sampled: 2:20 PM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>< 10.0</td></tr> <tr><td>Benzene</td><td>2.0</td></tr> <tr><td>Toluene</td><td>< 1.0</td></tr> <tr><td>Ethylbenzene</td><td>13.4</td></tr> <tr><td>Xylenes, Total</td><td>8.6</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>7.5</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>27.3</td></tr> <tr><td>Naphthalene</td><td>25.7</td></tr> <tr><td>UIP's</td><td>> 10.</td></tr> <tr><td>Surrogate 1</td><td>105.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	< 10.0	Benzene	2.0	Toluene	< 1.0	Ethylbenzene	13.4	Xylenes, Total	8.6	1,3,5 Trimethyl Benzene	7.5	1,2,4 Trimethyl Benzene	27.3	Naphthalene	25.7	UIP's	> 10.	Surrogate 1	105.%	Site: MW 6 Ref. Number: 162285 Date Sampled: 9/18/00 Time Sampled: 2:35 PM Analysis Date: 9/21/00 <table border="1"> <thead> <tr> <th>Parameter</th> <th>Results ug/L</th> </tr> </thead> <tbody> <tr><td>MTBE</td><td>20.4</td></tr> <tr><td>Benzene</td><td>9.8</td></tr> <tr><td>Toluene</td><td>17.4</td></tr> <tr><td>Ethylbenzene</td><td>34.5</td></tr> <tr><td>Xylenes, Total</td><td>154.</td></tr> <tr><td>1,3,5 Trimethyl Benzene</td><td>42.2</td></tr> <tr><td>1,2,4 Trimethyl Benzene</td><td>125.</td></tr> <tr><td>Naphthalene</td><td>32.1</td></tr> <tr><td>UIP's</td><td>> 10.</td></tr> <tr><td>Surrogate 1</td><td>96.%</td></tr> </tbody> </table>	Parameter	Results ug/L	MTBE	20.4	Benzene	9.8	Toluene	17.4	Ethylbenzene	34.5	Xylenes, Total	154.	1,3,5 Trimethyl Benzene	42.2	1,2,4 Trimethyl Benzene	125.	Naphthalene	32.1	UIP's	> 10.	Surrogate 1	96.%																							
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CHAIN-OF-CUSTODY-RECORD

38798

(VT ADDO 21-160)

1/2

Project Name: BRADLEY'S MOBIL		Reporting Address: 73 MILLET ST RICHMOND, VT		Billing Address: MARIN	
Endyne Order ID: (Lab Use Only)	9399	Company:	MARIN	Sampler Name:	H. LADUKE
	2 -0	Contact Name/Phone #:	CAREN H. 802 434-4560	Phone #:	
	-I				
	-S				

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
162280	TRIP	QW	X		9-18-00	2	40mVCA	Distilled WATER	8021b	HCL	
162281	MW1	GW			0800						
162282	MW3				1415						
	{ MW3				1420						
162283	MW4				1420				805DRO	---	
162284	MW5				1425				8021b	HCL	
	{ MW5				1430						
162285	MW6				1430				805DRO	---	
162286	MW7				1435				8021b	HCL	
162287	MW8				1440						
					1445						

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
<i>Heather Laduke</i>		<i>[Signature]</i>	2:14 PM	<i>A. Florucci</i>	9/19/00 2:15

New York State Project: Yes ___ No ___

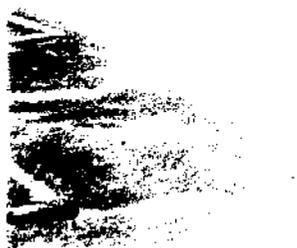
Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	24	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	25	8270 B/N or Acid	30	
31	Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sr, Ti, Tl, V, Zn										
	TCPLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)					33					

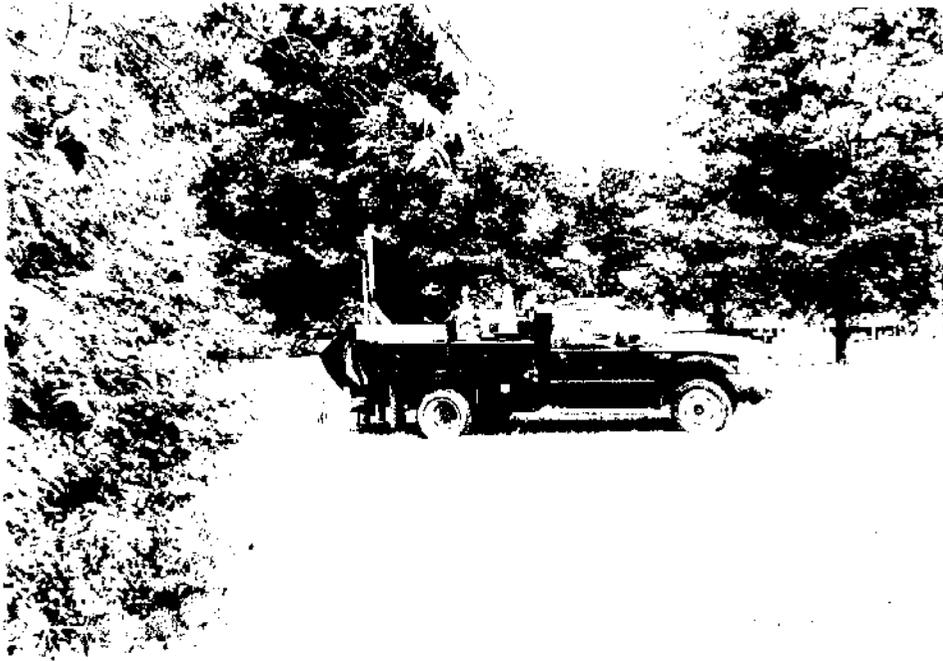
APPENDIX C
PHOTODOCUMENTATION



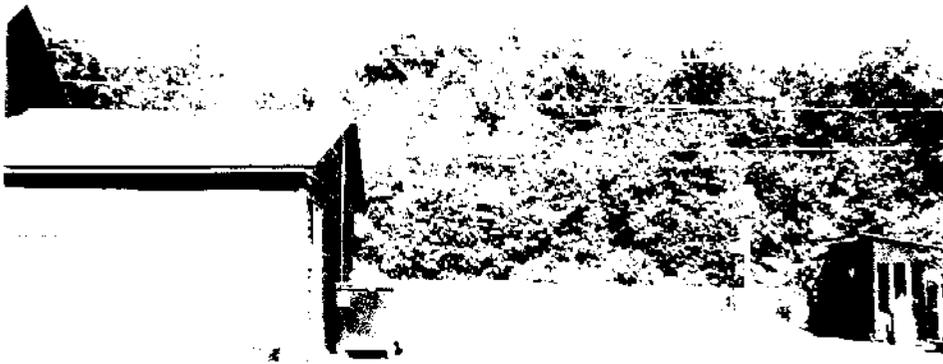
On-site soil stockpile. View is towards the south.



View of parking lot and residential properties to the east of Bradley's Mobil. Note an orange cone marks location of upgradient well MW-4.



View of MW-7 (marked by cone) and vibratory energy drill rig



View of the location of former gasoline and diesel underground storage tanks. Orange cone marks the location of MW-3



View of diesel and kerosene above ground storage tanks. View is towards the south. A garage is located adjacent to the site.



View of concrete pad overlying in-use gasoline tanks and dispenser island. View is to the north. Note municipal garage and residences to the north.