

HOFFER & ASSOCIATES CONSULTING HYDROGEOLOGISTS

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August 18, 1997

Chuck Schwer, Supervisor
Sites Management Section
VTDEC - Waste Management Division
103 South Main Street/West Office
Waterbury, VT 05671-0404

Re: Site Investigation Report, Walden Town Garage, Walden, Vermont
SMS Site #88-0168

Dear Mr. Schwer:

This letter presents our report on the limited site investigation performed last month at the Walden Town Garage in Walden, Vermont. The workplan for these activities was presented in a letter we sent to you on July 16. Our site investigation was completed on July 22, 1997 and included the collection of three groundwater samples and one riverbank seep sample for BTEX/MTBE, surveying of the existing site wells, a general site reconnaissance and the identification of potential receptors. This letter presents a discussion of previous activities at the site, the procedures and results of the field effort, and provides our conclusions and recommendations regarding the site. A site location map is included as Figure 1.

Background Information

A 1,000 gallon underground storage tank (UST) used for diesel fuel storage was closed at the site on July 30, 1996. This tank, installed in 1988, was owned by the Town of Walden and used to fuel town vehicles and trucks associated with road maintenance and plowing, and other municipal services. The Town now utilizes an aboveground tank for diesel storage. The Town Garage site is located on Route 15 and consists of two buildings used for many years for town equipment and trucks, a staging and storage area for road maintenance activities, a small office, and a large sand/salt storage pile. Joe's Brook, which flows southwest, borders the site to the west and north. A site basemap is included as Figure 2.

In November of 1987, sheens observed in Joe's Brook adjacent to the site prompted the removal of a 1,000 gallon gasoline UST and the associated piping. At that time "old" contamination within the tank excavation was identified. Two monitoring wells and one 14-inch recovery well were installed as part of an investigation and remedial response. Free product, identified as diesel fuel, was regularly bailed from the recovery well by town personnel. An adjacent diesel UST (1,000 gallon capacity) and piping was closed in 1988 from the same location as the former gasoline UST. The diesel UST and piping was replaced with new equipment and the pump, which had reportedly leaked diesel fuel for a while, was repaired. It was this replacement equipment installed in 1988 which was removed from the site in July of 1996.

GROUNDWATER & ENVIRONMENTAL SERVICES

The site was apparently placed on the VT DEC Closed Sites List inadvertently in February of 1995 due to confusion with two adjacent sites (Hooker Residence, SMS Site #92-1314; Walden General Store, SMS Site # 88-271). Prior to this past July, the most recent sampling data was collected at the site by The Johnson Company in December of 1994.

During closure of this UST last summer, petroleum contamination in soils within the tank excavation and under the pump dispenser was again identified. Petroleum sheens were also noted in water flowing from a seep in the bank of Joe's Brook 55 feet southwest of the UST excavation. The UST closure was conducted by Groundwater of Vermont and Fred's Plumbing and Heating. Evidence of petroleum contamination in soils beneath the UST and pump was detected with a photoionization detector (PID). Soil above the water table (located at six feet) was only slightly contaminated while saturated materials exhibited PID headspace readings ranging up to 207 parts per million (ppm) on a Thermo Environmental (Model 580B, calibrated with isobutylene to a benzene reference). Visual evidence of contamination was also noted. The bulk of contamination was found beneath the tank, which was extracted from the same location from which the two former USTs were removed in 1987 and 1988. The tank itself and associated piping appeared in good condition with the coating still intact. The source of the contamination both within the tank pit and beneath the pump dispenser was believed to be associated with the former equipment at these locations (see GWVT UST Closure Report in SMS file #88-0168).

During the 1996 tank closure, groundwater was encountered at approximately six feet below grade. Soil types observed in the excavation sidewalls and base during the 1996 closure included coarse brown sand and gravel down to eight feet. This description may be of the tank bedding materials as the soils in this area were described as "silty" during the 1987 gasoline UST closure.

Environmental Setting

The Walden Town Garage site is located on a sharp bend in Route 15 where it crosses Joe's Brook. The area surrounding the site is predominantly rural residential, woodlands and agricultural land, with the occasional commercial concern along Route 15. The former Walden General Store (currently an apartment building) is situated directly east of the site and the Hooker residence lies to the south across the road. Both properties are former SMS sites. Joe's Brook forms the western and northern borders of the site, across which lie undeveloped lands.

The site is situated in generally hilly terrain within the Vermont Piedmont province midway between the towns of St. Johnsbury and Hardwick. The Walden Town Garage sits on a relatively level terrace on the eastern side of Joe's Brook. A steep bank drops from the terrace approximately 12 to 15 feet to Joe's Brook, which flows relatively steeply to the southeast (see Figure 2). Bedrock was observed in the bed of the brook just upstream of the bridge across Route 15, and could be seen quite a distance downstream as well. Further upstream Joe's Brook meanders back and forth in the classic "S" shaped pattern typical of streamflow through sediments.

According to Doll's surficial geologic map of Vermont (1970) soils at the site include ice-marginal accumulations of till with morainic topography, as well as fluvial sands and gravel of

more recent origin. The bedrock observed in the bed of Joe's Brook has been mapped by Doll (1961) as the Waits River Formation, an interbedded crystalline limestone and phyllite.

Water Levels and Well Headspace PID Readings

Two monitoring wells and one recovery well were installed in 1987 as part of the original investigation of this site. Water levels were measured in these three site wells on July 22, 1997 (see Table 1). The monitoring wells are three-inch PVC wells while the recovery well is a 14-inch corrugated culvert pipe. The caps on the wells ranged from an old coffee can to a piece of plywood, to nothing at all. A PID¹ was used to screen well headspaces prior to recording water levels. PID readings were as follows.

<u>Well</u>	<u>Max. PID Reading (ppm)</u>
MW-1	2.1
MW-2	0.9
RW	0.2

Water levels in the wells were recorded using an interface probe to detect the presence of floating free-phase product. No product was encountered. Water levels ranged from 7.0 to 9.5 feet below the ground surface within these three wells, which are positioned fairly close together. A level survey of the well casing lips was performed in order to construct a water table contour map (see Table 1). Figure 3 presents this map showing westerly flow from the UST area into Joe's Brook. This flow direction is not surprising given the close proximity of this brook, and the history of free product discharging into it. A moderately steep hydraulic gradient of 0.13 ft/ft has been measured. The westerly flow path is consistent with previous information.

Groundwater Sampling and Analysis

Groundwater samples were collected from the three site wells following water level measurements. The wells were sounded to determine the standing water columns in order to calculate purge volumes. Three well volumes were purged from the two monitoring wells prior to sample collection. The recovery well was not purged given the large diameter of this well. Purging and sample collection was conducted with dedicated polyethylene bailers. Two 40 mL sample vials were filled at each sample location. The sample vials contained hydrochloric acid for sample preservation. Quality assurance/quality control (QA/QC) samples were collected which included a trip blank, a field blank, and a blind duplicate. The trip blank was provided by the laboratory and was handled in a similar fashion as the samples collected at the site. The field blank consisted of two vials filled with deionized water at the conclusion of sampling activities. A blind duplicate sample was filled at MW-2 and labeled MW-A on the sample vials and chain-of-custody form. All samples were stored in a cooler containing ice and were transported to the laboratory the same day they were collected. The chain-of-custody form and field sampling data sheet used to document the sampling event are enclosed. Samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl-tert-butyl-ether (MTBE) using EPA Method 8020 by SCITEST, Inc. The results are presented on Table 2, and the laboratory report sheets are enclosed.

¹ Photovac MicroTIP HL-2000, 10.6 eV lamp, calibrated with and set to respond to isobutylene.

Petroleum-related contaminants were detected in only one of the three wells sampled. MW-1, positioned directly in the tank excavation, contained 13 microgram per liters (ug/L) of benzene, which is above the regulatory threshold of 5.0 ug/L for this compound. Toluene, ethylbenzene and xylenes were detected in this well at only very low concentrations (2.0 ug/L or less). The other two wells (MW-2 and the recovery well) were free of all the BTEX compounds above practical quantitation limits. MTBE was not detected in any of the three wells (see Table 2). The benzene concentrations at all the wells have been included on Figure 3 for a graphical presentation of these results. Table 3 includes some historical sample results from this site. The recent results from these wells appears in line with previously collected information.

These recent results indicate some residual contamination persists in soil materials in the tank excavation area where MW-1 is positioned. Since MTBE was not detected, it is likely that diesel fuel is the source of these dissolved compounds. This is consistent with historical information at the site which identified diesel as the product bailed from of the recovery well. Given the good condition of the diesel tank removed in July of 1996, this recently identified contamination is probably the remnants of an old release.

No contaminants were detected in the trip or field blanks, and the results for MW-2 and its field duplicate sample were both below detection for all compounds.

Riverbank Seep Sampling

A reconnaissance was performed on July 22, 1997 along the streambed and bank of Joe's Brook where free product had been observed seeping from the riverbank during the UST closure in 1996. This area is directly downgradient from the former USTs and wells. The bank drops steeply approximately 14 feet to the brook (see Figure 2). Although no sheens were present, stained soils were observed and, when disturbed, sheens appeared in the water and moderately strong petroleum odors were detected. The area of staining extended for approximately 10 feet along the waters edge. As such, a sample of the riverbank sediment pore water was obtained.

The riverbank sample was collected one foot from the edge of the water approximately 25 feet upstream of the Route 15 bridge on the east side of the brook. This location was in the approximate center of the area exhibiting soil staining. The sample was collected by excavating a depression in the riverbank sediments with a trowel, letting the depression fill with groundwater, and then submerging the sampling vials beneath the surface and capping them. The sample was analyzed for BTEX and MTBE along with groundwater samples collected from site wells. The results are indicated on Table 2.

All four BTEX compounds were present within the riverbank seep sample, however, MTBE was absent. Benzene (11 ug/L) was the only constituent to exceed regulatory threshold values. The riverbank seep results are similar to those obtained from MW-1, indicating the presence of residual soil contamination in this area also likely the result of old releases from the previous tank, piping, and pump system. The location of this sample is slightly cross-gradient from the old tank excavation, yet downgradient from the former pump location which has been identified as an additional source area at this site.

Potential Receptors

The general site reconnaissance completed on July 22, 1997 included a neighborhood survey of water supply wells, surface water and other potential receptors. Water is supplied to the Town Garage building via pipes from an upgradient spring uphill to the east. This spring also serves various other homes in the area including a residence directly east of the sand/salt storage pile and the Noyesville church northeast of the site.

The apartment house (former Walden General Store) approximately 120 feet east of the Town Garage site reportedly has a well, but neither the location and type of well, nor even the existence of this well, was confirmed during the reconnaissance. According to Walden town employees, this building also may have an old UST associated with it as it was a retail fuel station which closed down in the early 1960s. The Hooker residence located across Route 15 to the southeast of the site also has a drilled bedrock well located approximately 300 feet away from the site USTs. Both this well and any well on the apartment building property are significantly upgradient from the contamination identified at the Walden Town Garage and therefore not considered at risk. No buildings were identified during the reconnaissance as being at risk from the accumulation of vapors potentially migrating from the site.

With regard to surface water, a small tributary to Joe's Brook flows west into the brook just to the north of the sand/salt pile. Given the location of this tributary and the westerly groundwater flow direction at the site, this tributary does not appear at risk. Joe's Brook is the principal surface water feature in the vicinity of the site. As indicated previously free-phase (and associated dissolved phase) contamination has discharged into this brook for years, and therefore Joe's Brook is considered the primary receptor of concern associated with contamination at the Walden Town Garage site.

Conclusions and Recommendations

A limited site investigation at the Walden Town Garage in Walden, Vermont found evidence of petroleum contamination in soil and groundwater. A discontinuous plume of dissolved phase petroleum contaminants was identified migrating westerly towards Joe's Brook located approximately 50 feet away from the former UST excavation. Relatively low contaminant concentrations were identified within the shallow groundwater zone at two of the four sampling locations (MW-1 and the riverbank seep). However, benzene concentrations exceed regulatory threshold values for drinking water at both these points.

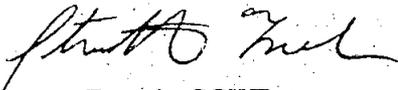
Depth to groundwater at the site is 7.0 to 9.5 feet below ground within glacial till-derived soils. As presently defined, site contamination does not appear to threaten local water supply wells or indoor air quality. Both free-phase and dissolved contamination has been discharging into Joe's Brook for years. Although this is probably still occurring, it was not observed on the day of site investigation activities, however, petroleum-stained soils were evident. Joe's Brook is the principal receptor of concern at this site.

The source of contamination identified at this site appears to be residual diesel fuel from the former UST excavation and pump dispenser location. Based on the site assessment report and discussions with town officials, it is likely that the release(s) occurred many years ago and are not associated with the most recent diesel UST closed in July of 1996. Groundwater from two of the wells sampled located directly downgradient from this UST were found to be clean.

It is recommended that the three site wells be sampled again during high water conditions next fall, and semi-annually thereafter until benzene concentrations drop below threshold limits. It may also be beneficial to install a commercially available oxygen release compound in the wells to stimulate/enhance the natural biodegradation processes in the soil. This could be accomplished easily and relatively inexpensively, will target any residual soil contamination between the UST area and Joe's Brook, and thereby reduce the amount of dissolved contamination entering the brook. We would be happy to develop a cost estimate for these activities.

If you have any questions regarding this report, please give us a call.

Sincerely,
HOFFER & ASSOCIATES



Stratton French, CGWP
Senior Hydrologist

enc.

cc: Joanne Foster, Town of Walden

TABLE 1
 Groundwater elevation measurements,
 Walden Town Garage, Walden, Vermont, SMS Site #88-0168.

DEPTH TO WATER (feet below TOC)			
<u>Well ID</u>	<u>Elev. of TOC (ft)</u>	<u>Elev. of Ground Surface (ft)</u>	<u>7/22/97</u>
MW-1	100.50	99.82	7.59
MW-2	100.75	99.07	12.00
RW	101.18	99.74	10.91

GROUNDWATER ELEVATIONS (feet)			
<u>WELL ID</u>	<u>Elev. of TOC (ft)</u>	<u>Elev. of Ground Surface (ft)</u>	<u>7/22/97</u>
MW-1	100.50	99.82	92.91
MW-2	100.75	99.07	88.75
RW	101.18	99.74	90.27

Notes:
 Elevations relative to on-site datum (bridge footing = 100.00 feet)

TABLE 2
 Groundwater sampling results for July 22, 1997,
 Walden Town Garage, Walden, Vermont, SMS Site #88-0168.

<i>July 22, 1997 (results in ug/L)</i>					
WELL ID	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	13	2	1	2	<1
MW-2	<1 / <1	<1 / <1	<1 / <1	<1 / <1	<1 / <1
RW	<1	<1	<1	<1	<1
Seep	11	14	9	22	<5
Field Blank	<1	<1	<1	<1	<1
Trip Blank	<1	<1	<1	<1	<1
<u>REGULATORY THRESHOLDS</u>					
Vermont Groundwater Enforcement Standard	5	2420	680	400	-
Vermont Preventative Action Limit	0.5	1210	340	200	-
Vermont Health Advisory	1	-	-	-	40
USEPA Maximum Contaminant Level (Drinking Water)	5	1000	700	10000	-

Notes:

< 1 = below a detection level of 1
 1580 / 1590 = sample result / field duplicate result

TABLE 3
Water Quality Summary,
Walden Town Garage, Walden, Vermont, SMS Site #88-0168.

Location / Sampling Date	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE	Total Volatile Hydrocarbons
<i>MW-1</i>						
11/24/93	< 50	< 50	< 50	< 50	< 100	87200 E
5/6/94	< 5	7	< 5	6	< 10	2750 E
9/8/94	< 125	< 125	< 125	< 125	< 125	41200 E *
7/22/97	13	2	1	2	< 1	-
<i>MW-2</i>						
11/24/93	< 5	< 5	7	< 5	< 10	16800 E
5/6/94	< 5	< 5	< 5	< 5	< 10	983 E
9/8/94	< 50	< 50	< 50	< 50	< 50	16300 E
7/22/97	< 1	< 1	< 1	< 1	< 1	-
<i>RW</i>						
11/24/93	< 5	< 5	< 5	< 5	< 10	6230 E
5/6/94	8	< 5	< 5	5	55	2000 E
9/8/94	< 250	< 250	< 250	< 250	< 250	5000 E
7/22/97	< 1	< 1	< 1	< 1	< 1	-
REGULATORY THRESHOLDS						
Vermont Groundwater Enforcement Standard	5	2420	680	400	-	
Vermont Preventative Action Limit	0.5	1210	340	200	-	
Vermont Health Advisory	1	-	-	-	40	
USEPA Maximum Contaminant Level	5	1000	700	10000	-	

Notes:

< 1 = below a detection level of 1

9 / 8 = sample result / field duplicate result

E = estimated value

* = average of sample and duplicate reported concentrations

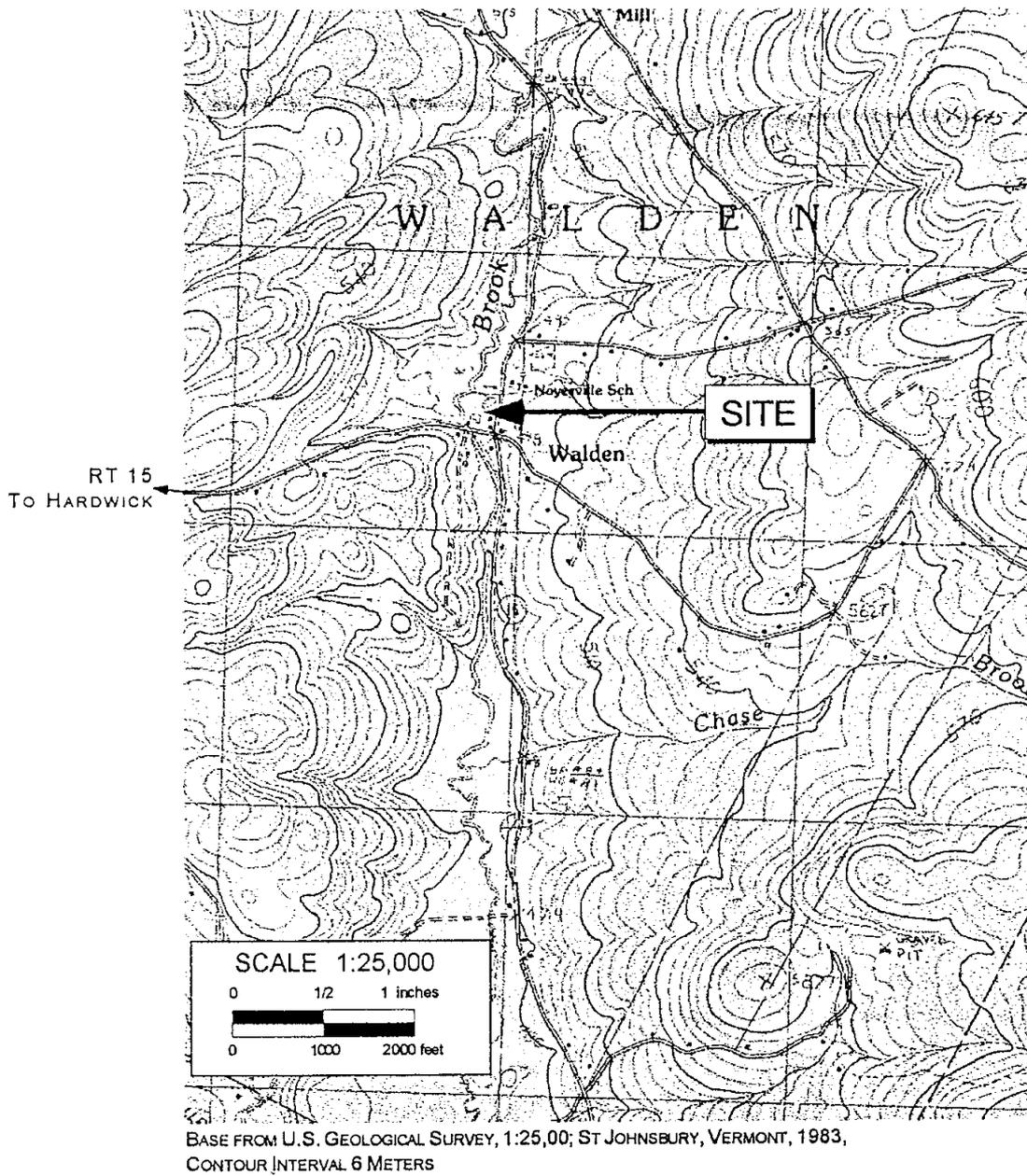


FIGURE 1
 SITE LOCATION MAP,
 WALDEN TOWN GARAGE SITE,
 WALDEN, VERMONT, SMS SITE # 88-0168.

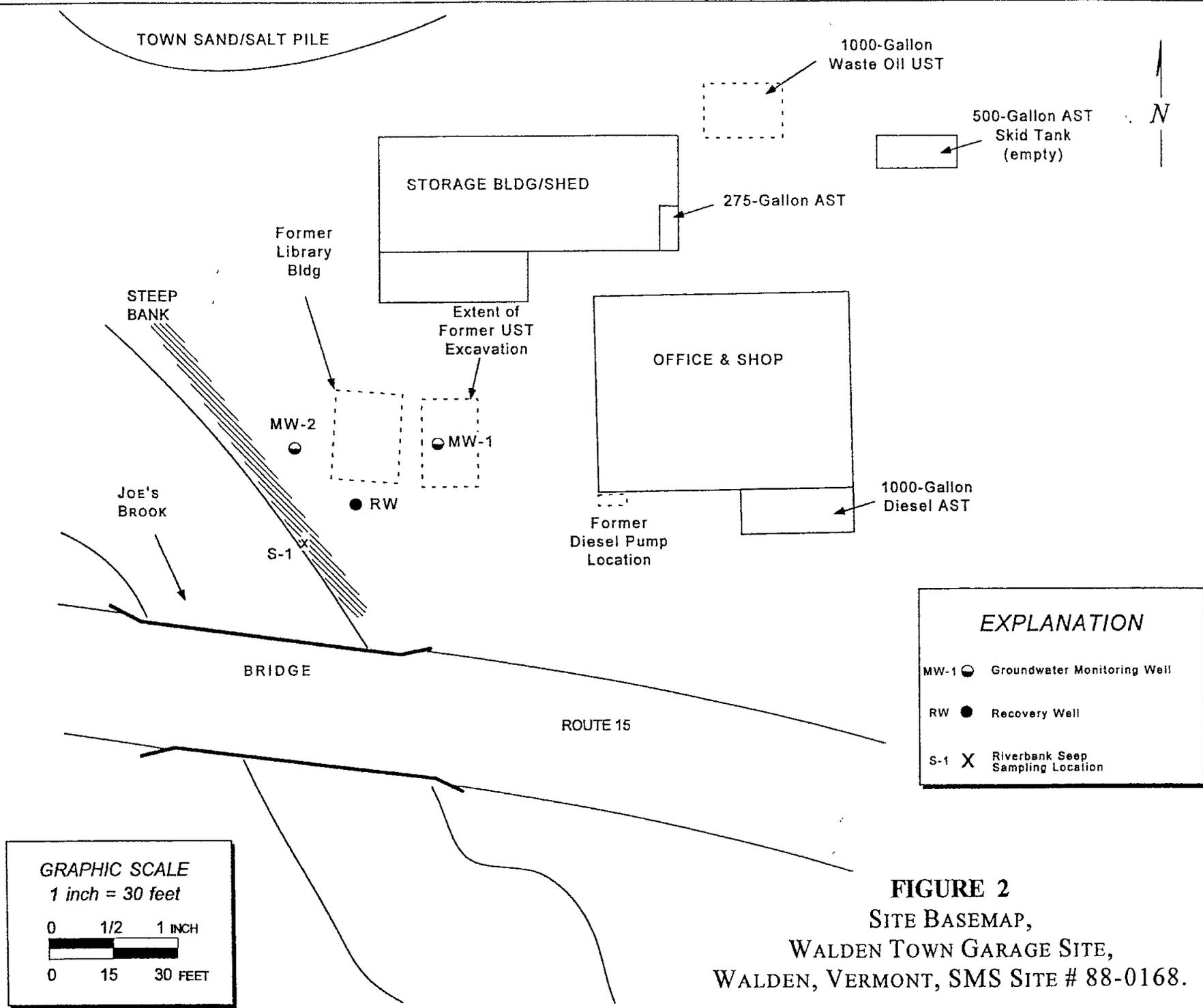
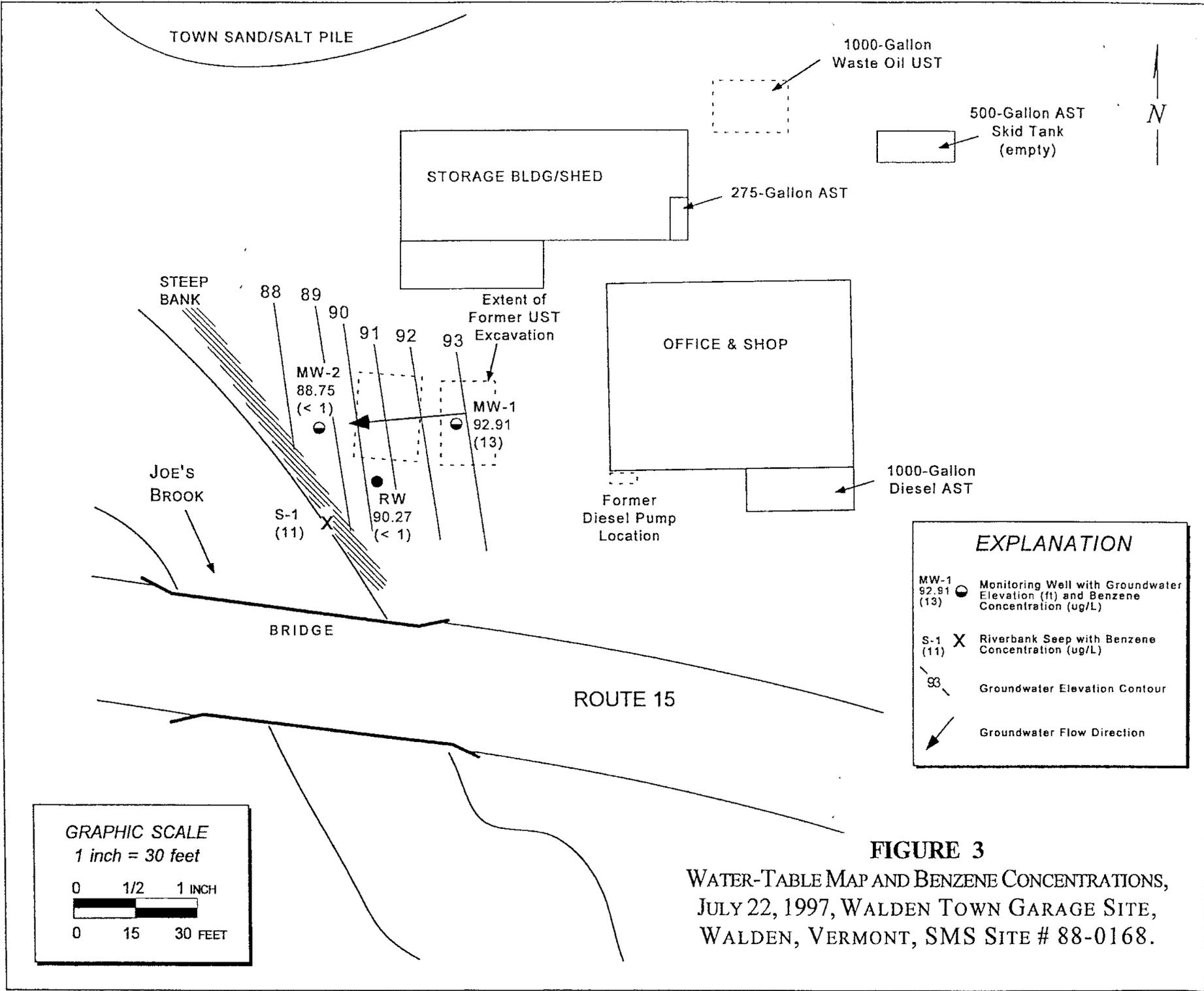


FIGURE 2
 SITE BASEMAP,
 WALDEN TOWN GARAGE SITE,
 WALDEN, VERMONT, SMS SITE # 88-0168.





ANALYTICAL REPORT

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Randolph, Vermont 05060-0339
(802) 728-6313

Jefferson Hoffer & Associates
RR 4 Box 2286
Montpelier VT, VT 05602

Jeff Hoffer

Work Order No.: 9707-02359

Project Name: Walden Town Garage
Customer Nos.: 070249

Date Received: 7/22/97
Date Reported: 7/25/97

Sample Desc.: Trip Blank (07/17/97)	Method	Results	Units	Analyst	Analysis Date
Sample Nos: 1					
Test Performed	EPA 8020/602			JPM	7/25/97
Aromatic Volatile Organics	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		104	% Recovery	JPM	7/25/97

Sample Desc.: MW-2	Method	Results	Units	Analyst	Analysis Date
Sample Nos: 2					
Test Performed	EPA 8020/602			JPM	7/25/97
Aromatic Volatile Organics	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		107	% Recovery	JPM	7/25/97

ANALYTICAL REPORT

Project Name: Walden Town Garage
Project No.: 070249

Work Order No.: 9707-02359

Sample Desc.:	Method	Results	Units	Analyst	Analysis Date
Sample Desc.: RW					
Sample Nos: 3					
Test Performed					
Aromatic Volatile Organics	EPA 8020/602			JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		107	% Recovery	JPM	7/25/97

Sample Desc.:	Method	Results	Units	Analyst	Analysis Date
Sample Desc.: MW-A					
Sample Nos: 4					
Test Performed					
Aromatic Volatile Organics	EPA 8020/602			JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		109	% Recovery	JPM	7/25/97

Sample Desc.:	Method	Results	Units	Analyst	Analysis Date
Sample Desc.: MW-1					
Sample Nos: 5					
Test Performed					
Aromatic Volatile Organics	EPA 8020/602			JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	13	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	2	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	1	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	2	ug/L	JPM	7/25/97



ANALYTICAL REPORT

Project Name: Walden Town Garage
Project No.: 070249

Work Order No.: 9707-02359

Sample Desc.:	Method	Results	Units	Analyst	Analysis Date
MW-1					
Sample Nos: 5					
Test Performed					
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		111	% Recovery	JPM	7/25/97

Sample Date: 7/22/97
Collection Time: 13:20

Sample Desc.:	Method	Results	Units	Analyst	Analysis Date
Seep Sample					
Sample Nos: 6					
Test Performed					
Aromatic Volatile Organics	EPA 8020/602			JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	< 5	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	11	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	14	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	9	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	22	ug/L	JPM	7/25/97
Chlorobenzene	EPA 602/8020	< 5	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	< 5	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	< 5	ug/L	JPM	7/25/97
1,4-Dichlorobenzene	EPA 602/8020	< 5	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		157	% Recovery	JPM	7/25/97

Sample Date: 7/22/97
Collection Time: 13:25

NOTE: Matrix interference with surrogate and many late eluting compounds for Seep sample, which contained a strong petroleum smell.

Sample Desc.:	Method	Results	Units	Analyst	Analysis Date
FB-01					
Sample Nos: 7					
Test Performed					
Aromatic Volatile Organics	EPA 8020/602			JPM	7/25/97
Methyl Tertiary Butyl Ether	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Toluene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Ethyl Benzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Total Xylenes	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Chlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,2-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
1,3-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97

Sample Date: 7/22/97
Collection Time: 13:45



ANALYTICAL REPORT

Project Name: Walden Town Garage
Project No.: 070249

Work Order No.: 9707-02359

Sample Desc.: FB-01				Sample Date: 7/22/97	
Sample Nos: 7				Collection Time: 13:45	
Test Performed	Method	Results	Units	Analyst	Analysis Date
1,4-Dichlorobenzene	EPA 602/8020	BPQL	ug/L	JPM	7/25/97
Surrogate: 8020				JPM	7/25/97
***Bromofluorobenzene-8020		106	% Recovery	JPM	7/25/97

BPQL = Below Practical Quantitation Limit; 1 ug/L

Authorized by: Eric Lamothe

Scitest, Inc.

P.O. Box 339
 Route 66 Professional Center, Randolph, VT 05060
 Phone: (802)728-6313 Fax: (802)728-6044

Walden Town Garage

Sample Logged in By: _____
 Anomaly Sheet: Y ___ N ___

Preservative Check:
 Temperature Check:

Client: Jefferson P. Hoffer & Associates
 Address: RR 4 Box 2286, Comstock Road
 Montpelier, VT 05602

Contact Tony French

Customer Nos: 70249

Date requested: 07/

Phone No: 229-1113

Project:
 Job Template:

Date shipped:

Date scheduled: 07/

CHAIN OF CUSTODY

Sampled by: * STRATTON FRENCH	Date	Time	Print Name Here: * STRATTON FRENCH	Date	Time
Relinquished by: <i>[Signature]</i>	7/22/97	15:05	Accepted by:		
Relinquished by:			Received by Scitest: Julie Wall	7/22/97	3:11

Sample No:	Sample Description	Sample Date	Sample Time	Matrix	Preservative	Container Material	Container Volume	Containers per Sample	Parameters
1	Trip Blank TR-01	7/22/97	12:15	WA	HCl	Glass	40 mL	2	EPA 8020
2	* MW-2	↓	* 12:40	GW	HCl	Glass	40 mL	2	EPA 8020
3	* RW		* 12:50	GW	HCl	Glass	40 mL	2	EPA 8020
4	* MW-A		* 13:15	GW	HCl	Glass	40 mL	2	EPA 8020
5	* MW-1		* 13:20	GW	HCl	Glass	40 mL	2	EPA 8020
6	* Seep sample		* 13:25	GW	HCl	Glass	40 mL	2	EPA 8020
7	* FB-01		* 13:45	D.I. GW water	HCl	Glass	40 mL	2	EPA 8020
8	*		*	GW	HCl	Glass	40 mL	2	EPA 8020

SAMPLES MUST REACH THE LAB within _____ of sampling time to meet all holding times.	Parameters are correct as listed Client Initial: _____*	Scitest Work Order:
	Please fill in ALL areas marked with an asterisk (*). Thank you. Additional instruction if applicable are attached.	