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May 27 10:07 AM '96

Date	5/24/96	Job No.	96597
Attention	Richard Spiase		
Re:			

LETTER OF TRANSMITTAL

To: VT DEC-SMS.



STONE ENVIRONMENTAL INC

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 05602 USA

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Copies	Date	No.	Description
1	5/24/96		Final site Inv. report

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REMARKS

Signed: N. Pausen

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

INITIAL SITE INVESTIGATION REPORT

Heritage Building
 River Street
 Montpelier, VT

VT DEC No. 95-1912
 SEI Project No. 96-597

A Facility Owned By:
 The Leahy Press
 Montpelier, Vermont

Contact:
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May 24, 1996

EXECUTIVE SUMMARY

A 10,000 gallon underground storage tank was removed from the Heritage Building property in Montpelier, VT in October of 1995. The tank removal report submitted to the Vermont Department of Environmental Conservation, Sites Management Section (SMS), indicated that there was an estimated 25 sq ft of soil contamination at the site, with peak volatile organic compound (VOC) levels of 63 parts per million.

On April 30, 1996, Stone Environmental Inc. (SEI) performed an initial site investigation pursuant to their workplan, approved by Richard Spiese of the SMS on March 21, 1996. Six soil borings were advanced to the water table at the site and samples were collected continuously, using a vibratory drill rig operated by Adams Engineering. The head space of each of the soil samples was analyzed with a Photo Ionization Detector (10.6 eV lamp). All samples had VOC readings of less than 1.0 ppm. The soil contamination reported in the tank pull report appears not to be extensive and no contamination was observed at the unsaturated/saturated zone interface. As stated in the work plan, temporary wells were only to be installed if contamination was observed at the water table.

Based on the findings of this investigation, and on behalf of The Leahy Press, we are requesting that this site be considered for closure pursuant to the SMAC Classification procedure Guidelines, dated December 13, 1993.

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1.0 INTRODUCTION

Stone Environmental Inc. (SEI) was contracted by Leahy Press to perform a site investigation at the Heritage Building in Montpelier, VT (see Figure 1). SEI submitted a proposal and cost estimate to the Vermont Department of Environmental Conservation, Sites Management Section (SMS) on February 20, 1995. In a letter dated March 21, 1996, Richard Spiese, Site Coordinator of the SMS, approved of SEI's plan and costs. The plan called for six soil borings to be advanced with a vibratory drill rig, with continuous sampling for Volatile Organic Compounds (VOCs); wells were to be installed if contamination was found at the water table. The investigation also includes an assessment of sensitive receptors in the area.

2.0 SITE HISTORY

A 10,000 gallon #2 fuel oil underground storage tank (UST) was removed from the site on October 11, 1995 and a report describing subsurface conditions was submitted to the SMS by Griffin International on October 17, 1995. During tank removal soils screened for volatile organic compounds had a peak reading of 63 parts per million (ppm) as measured with a Photo Ionization Detector (PID). It was estimated that 25 square feet of soil was contaminated. A confining clay layer was found at 14 feet bgs.

3.0 SOIL BORINGS

On April 30, 1996 Adams Engineering of Underhill, VT, under the supervision of SEI, advanced six boreholes at the site. The purpose of the soil borings was to better define the lateral and horizontal extent of soil and/or groundwater contamination found during the removal of the UST. The borehole locations are shown in figure 2. The soil samples were collected continuously with Adam's vibratory drill rig, logged, split in discrete increments, and placed in ziplock baggies. The head space of each sample was then analyzed for VOCs with a Mini RAE[®] PID. The PID was calibrated on site using 100 ppm Isobutylene and was equipped with a 10.6 eV lamp. The soil boring logs and the VOC results are tabulated below.

Table 1
Soil Boring Logs

Boring Number	Depth (feet)	Recovery (inches)	Description	VOC (ppm)
SB-1	0 - 1.0	Point Driven	No sample	
	1.0 - 5.0	17	0 - 3" Gravel	0.2
			3 - 17" Sand and Gravel	0.1 - 0.2
	5.0 - 6.0	Point Driven	No Sample	
	6.0 - 10.0	10	0 - 10" Sand and Gravel	0.5 - 0.9
	10.0 - 13.0	Point Driven	No Sample	
13.0 - 15.0	20	0 - 20" Clay	0.1 - 0.2	

Table 1 (Continued)
Soil Boring Logs

Boring Number	Depth (feet)	Recovery (inches)	Description	VOC (ppm)
SB-2	0 - 1.0	Point Driven	No Sample	
	1.0 - 5.0	24	0 - 24" Sand and Gravel	0.0 - 0.2
	5.0 - 10.0	36	0 - 36" Sand and Gravel	0.0 - 0.4
	10.0 - 15.0	32	0 - 15" Gravelly Sandy Loam 15 - 32" Clay	0.0 - 0.3 0.0
SB-3	0 - 1.0	Point Driven	No Sample	
	1.0 - 5.0	44	0 - 13" Sand 13 - 44" Fine Sandy Loam	0.0 0.0 - 0.1
	5.0 - 9.0	24	0 - 7" Fine Sandy Loam 7 - 24" Clay	0.1 0.0
SB-4	0 - 1.0	Point Driven		
	1.0 - 1.2	0	Cobble Blocked Sampler	
	1.2 - 2.0	Point Driven		
	2.0 - 5.0	26	0 - 26" Gravelly Sand	0.0 - 0.5
	5.0 - 10.0	2	Plug was sand	0.8
	10.0 - 11.0	Point Driven	No Sample	
	11.0 - 13.5	7	Clay	0.0
SB-5	0 - 6.0	Point Driven		
	6.0 - 10.0	14	0 - 12" Sand 12 - 14" Clay	0.0 0.0
SB-6	0 - 1.0	Point Driven	No Sample	
	1.0 - 5.0	43	0 - 3" Black Gravel 3 - 13" Sand and Gravel 13 - 26" Silty Clay 26 - 37" Sandy Clay 37 - 43" Clay	 0.1 0.0 0.0 0.0

Although VOC contamination was not present in saturated soils collected from the unsaturated/saturated zone interface, temporary stainless-steel wells were installed in borings 1, 3, and 5 in order to collect depth to groundwater measurements. The depth to groundwater measurements are tabulated in Table 2, below. Figure 3 is a groundwater elevation map based on these measurements. Due to the proximity of the Heritage building, no downgradient borings were installed.

Table 2
Depth to Groundwater

Boring Number	Depth (bgs)	Elevation*
SB-1	12.10	587.90
SB-2	No Measurement	No Measurement
SB-3	5.25	594.75
SB-4	No Measurement	No Measurement
SB-5	9.00	591.00
SB-6	No Measurement	No Measurement

*Elevation based on arbitrary survey point of 600 ft above mean sea level

4.0 GEOLOGY AND HYDROGEOLOGY

The site is overlain by cobbly backfill which led to poor recovery in many of the borings. A clay layer was observed which dips steeply to the North. It was observed at approximately 2 feet in SB-3 and approximately 11 feet in SB-2. The sediments overlaying the clay layer were primarily sand and gravel and comprise the surficial aquifer at the site. Based on these observations groundwater is flowing to the North (see figure 3).

5.0 POTENTIAL RECEPTOR ASSESSMENT

SEI performed a sensitive receptor assessment and found no sites which would be potentially impacted by contamination from the site. A review of the State Water Supply well logs indicated that there were no wells in the immediate vicinity which could be impacted by contamination. The Winooski River is located 1/4 mile to the North of the site and appears to be the only receptor in the area. Because only background VOC readings were observed in the soil borings, SEI did not investigate surrounding basements for VOCs.

6.0 DISCUSSION AND CONCLUSIONS

The soil borings performed at the site found only background levels of VOCs. No readings were above 0.9 ppm. Because no evidence of soil contamination was observed, no monitoring wells were installed, as was stated in the work plan. Based on all information collected by SEI at the Heritage Building, it appears that the contaminated soils reported in the tank pull report are not extensive. Further, no evidence of groundwater contamination was discovered. Therefore, it is SEI's recommendation that this site be considered for closure pursuant to the SMAC Classification Procedure Guidelines, dated December 13, 1993.

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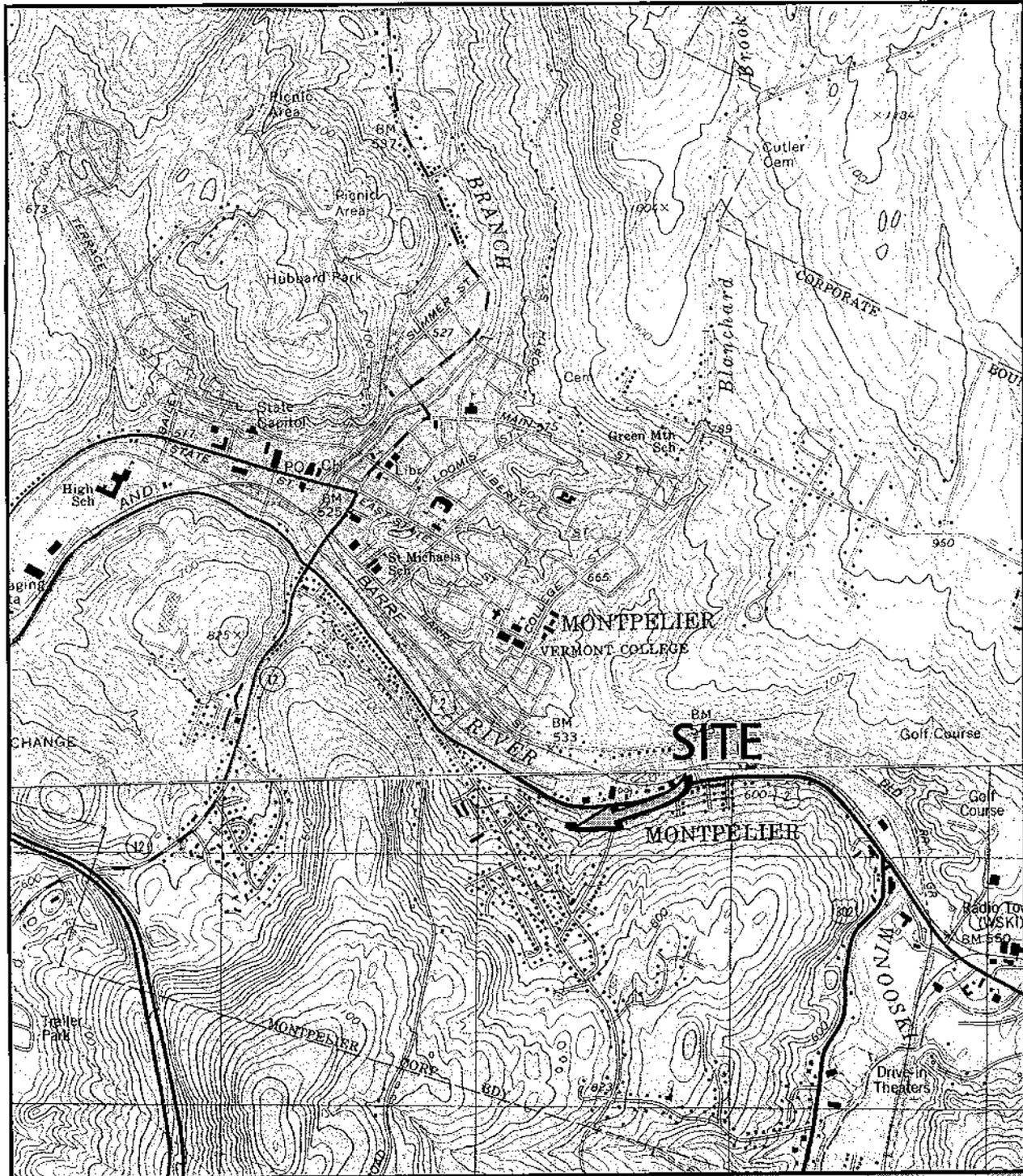
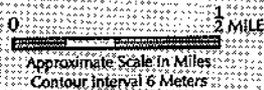


FIGURE 1: LOCATION MAP
Heritage Building
Montpelier, Vermont



Source: Montpelier, VT Quadrangle, 7.5 Minute Series, 1:24,000 Scale, USGS 1968;
 and Barre West, VT Quadrangle, 7.5 Minute Series, 1:24,000 Scale, USGS 1988.
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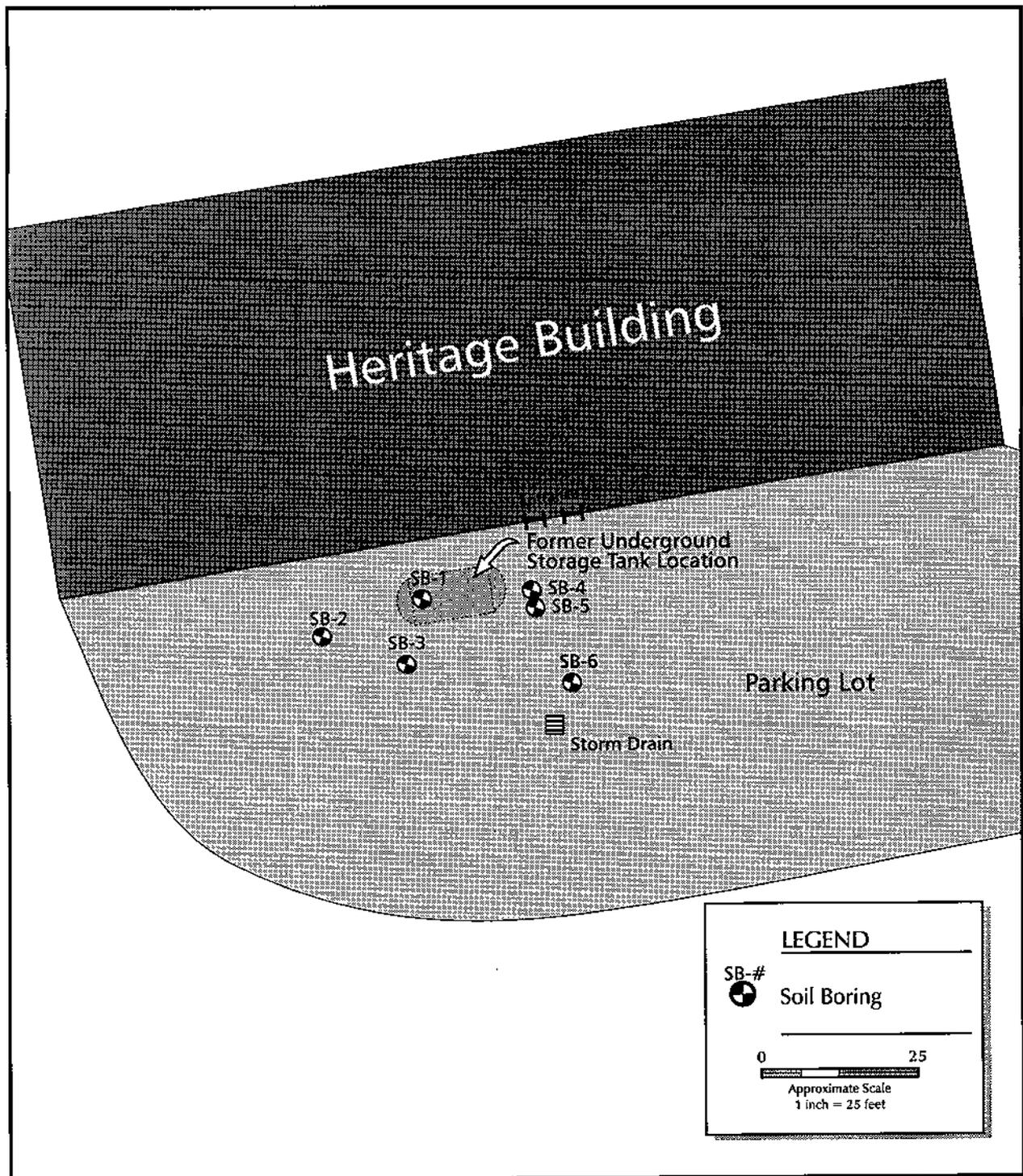


FIGURE 2: SITE MAP
 Heritage Building
 Montpelier, Vermont



Source: SEI Field Notes, 4-30-96
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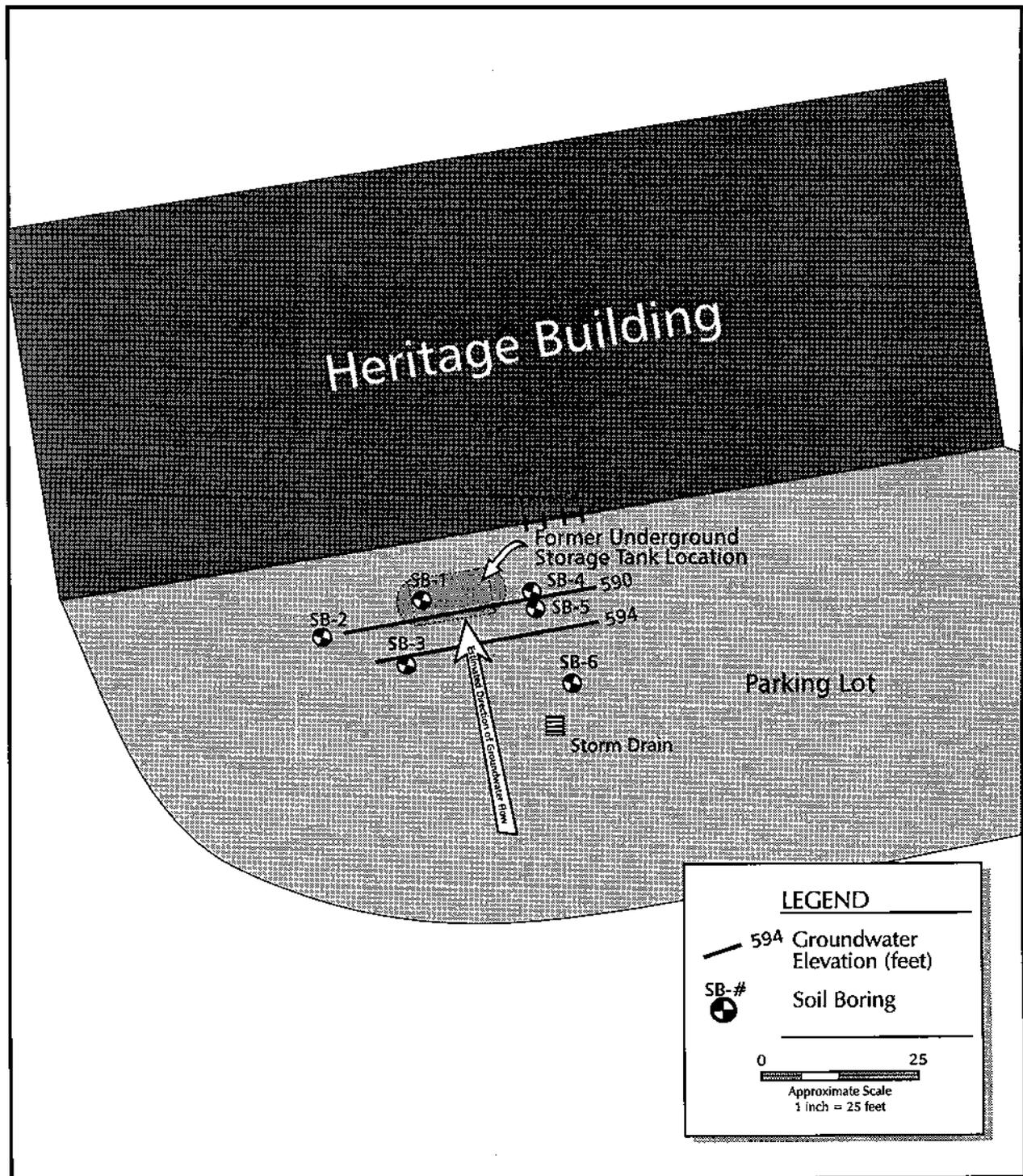


FIGURE 3: GROUNDWATER ELEVATIONS, APRIL 30, 1996
Heritage Building
Montpelier, Vermont



Source: SEI Field Notes, 4-30-96
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