

October 26, 2000

Chuck Schwer
 Sites Management Section
 Waste Management Section
 103 South Main Street, West Office Building
 Waterbury, VT 05671-0404


STONE ENVIRONMENTAL INC
Main Office:

58 East State Street
 Montpelier, Vermont
 05602 USA

Phone / 802. 229.4541

Fax / 802. 229.5417

E-Mail / sei@stone-env.com

Web Site / www.stone-env.com

SEI No.

RE: Site Investigation Report for the Lovejoy Tool Company Inc.
 Site in Springfield, VT.
 SMS Site #97-2315

Dear Chuck:

In response to your request to Mr. Alex Greer of the Lovejoy Tool Company, Stone Environmental Inc. (SEI) has performed a site investigation at the Lovejoy Tool Company's manufacturing facility in Springfield, Vermont. The work was performed using the Expressway Site Investigation procedure; the expressway notification form was presented as part of the enclosed June 16, 1998 letter from SEI to Bob Butler of SMS.

Introduction

Three monitoring wells (MW 1, 2 and 3) were installed and sampled as part of a site investigation to determine the extent and magnitude of contamination associated with two 1,000 gallon underground storage tanks (UST) which contained #2 fuel oil. Analyses of groundwater samples, collected from these three wells, indicate that the groundwater has not been adversely affected by the residual contamination found in the unsaturated soils during the tank removal process. According to records at the Agency of Natural Resources Water Supply Division, there are no water supply wells between this site and the Black River. Based on water level measurements in the three wells, the river is believed to be a point of discharge for the groundwater leaving this site.

Site Background

Two 1,000 gallon USTs, containing #2 heating oil, were removed from the back parking lot of the Lovejoy Tool Company and Springfield Electroplating Inc. facility in the downtown area of Springfield Vermont. At the time of the tank removal, contaminated soils were found in the vicinity of the tank; a peak reading of 48 ppm (as measured using a PID/heated headspace method) was measured in the unsaturated soils directly below the tank. The tanks and the supply lines were reportedly in good condition and free of leaks. As it was not clear which tank was the cause of this contamination, the two owners of the USTs (Lovejoy Tool and

Southeast Regional Office:

206 Langston Mill Court
 Raleigh, North Carolina
 27606 USA
 Phone / 919.387.4704
 Fax / 919.387.5703
 E-Mail / ahiscock@stone-env.com

Pacific Office:

529 Portobello Road
 Macandrew Bay
 Dunedin, New Zealand
 Phone / 64.3.476.1305
 Fax / 64.3.476.1985
 E-Mail / chanson@stone-env.com

Springfield Electroplating) agreed to divide the responsibility for the cleanup evenly between them.

A letter from SMS (April 27, 1998) requested that a site investigation be performed to address the following issues: 1) the degree and extent of contamination to soil, groundwater and air; 2) the potential for this contamination to adversely impact sensitive receptors and if so, determine the need for corrective action and; 3) submit a report that outlines the work performed and the resulting conclusions and recommendations. SEI was contracted by Lovejoy Tool Company in the summer of 1998 to address the issues raised in the April 27, 1998 letter from the SMS.

Methods and Materials

Three 1.5 inch (internal diameter) PVC monitoring wells were installed by SEI using the drill rig of Adams' Engineering in June of 1998. The bottom of the well screens were placed at the bedrock surface (between 12 and 15 feet below ground surface [BGS]); as determined by the drill rig's refusal at this point. All wells were completed with flush mount protective road boxes. A survey was performed (with an assumed reference elevation of 100 ft) by SEI using an auto-level surveying instrument. The locations of the wells are shown on Figure 1, along with the screened interval and water level measurements for each well can be found in Table 1 below. The wells were developed immediately after installation and were sampled using a bailing technique approximately two weeks later (July 16, 1998). The three samples were analyzed by Endyne Laboratory in Williston, Vermont for gasoline related volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) by EPA Methods 8021B and 8100, respectively. Water levels were obtained prior to the water sampling using a water level indicator and are referenced from the top of the PVC casing.

TABLE 1
Monitoring Well Data

Parameter	MW-1	MW-2	MW-2
Screened Interval, ft BGS	5-15	7.3-12.3	10-15
Screened Interval, assumed elevation	92.98 – 102.98	102.52 – 97.58	102.74 – 97.74
Depth to Water, ft BGS	9.67	9.55	11.18
Depth to Water, Elevation	93.31	92.97	91.56

Receptor Analysis

A review of the ANR Water Supply Division records indicates that there are many residential water supply wells in the area of this site. However, due to the close proximity of this site to the Black River (see Figure 1) and the fact that groundwater appears to be discharging into the river, it is unlikely that any of these wells would be impacted by contamination originating at this site. The city water supply wells are located well to the north

of this site and therefore, are also unlikely to be considered as receptors of this site's contamination. A map of the area showing the locations of the supply wells is attached as an appendix.

Indoor air quality in the area is unlikely to be affected since there are no basements in the vicinity of the former UST and furthermore, the nearest room (within the bottom floor of the Lovejoy Tool building) is the furnace room which, at the time of this work, contained a discernable fuel odor. As such, linking the air quality of this room to any residual contamination that may exist in the former UST area, is not recommended.

Results

As shown in Table 2 below, all three groundwater samples are devoid of contamination above the laboratory detection limits. The water level data indicates that groundwater is flowing in a southwesterly direction toward the Black River with a hydraulic gradient of 4.8% (see Figure 1). This is not surprising considering that the level of the Black River, immediately to the west of the site, is more than 7 feet below that of the water table for this site and therefore is likely to be a point of discharge for groundwater leaving this site.

TABLE 2
Laboratory Results, ug/L

Target Compound	MW-1	MW-2	MW-2
MTBE	<10	<10	<10
Benzene	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0
Ethylbenzene	<1.0	<1.0	<1.0
Total Xylenes	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0
TPH	<400	<400	<400

Conclusions and Recommendations

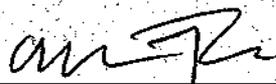
Although subsurface contamination of soil was encountered during the removal of these tanks, it appears that the contamination has not impacted the groundwater immediately down gradient of the UST area. It is likely that only a small amount of contamination was present at the time of the UST removal and has since been attenuated by the following natural processes: biodegradation; volatilization and; sorption. Based on the direction of the hydraulic gradient, the only likely receptor for this contamination is the Black River however, for the reasons stated above, no real threat to the quality of this river is expected. At this time, SEI believes that the site has been adequately investigated and has met the criteria for receiving a Sites Management Activities

Complete (SMAC) status. Based on the April 27, 1998 letter from your office to Lovejoy Tool Company, SEI is requesting that Lovejoy Tool Company and Springfield Electroplating Inc. be reimbursed for 100% of the cost required to perform this investigation.

If you have any questions regarding this information, please call me. I look forward to hearing from you.

Sincerely yours,

STONE ENVIRONMENTAL, INC.



Michael Rossi, Project Scientist

Direct Phone / 802-229-2194, Direct E-Mail / mrossi@stone-env.com

c.c.

Warren Garfield
Lovejoy Tool Company
133 Main Street
Springfield, VT 05156
802-843-8376

Shawn Snide
Springfield Electroplating
135 Main Street
Springfield, VT 05156
802-843-3106

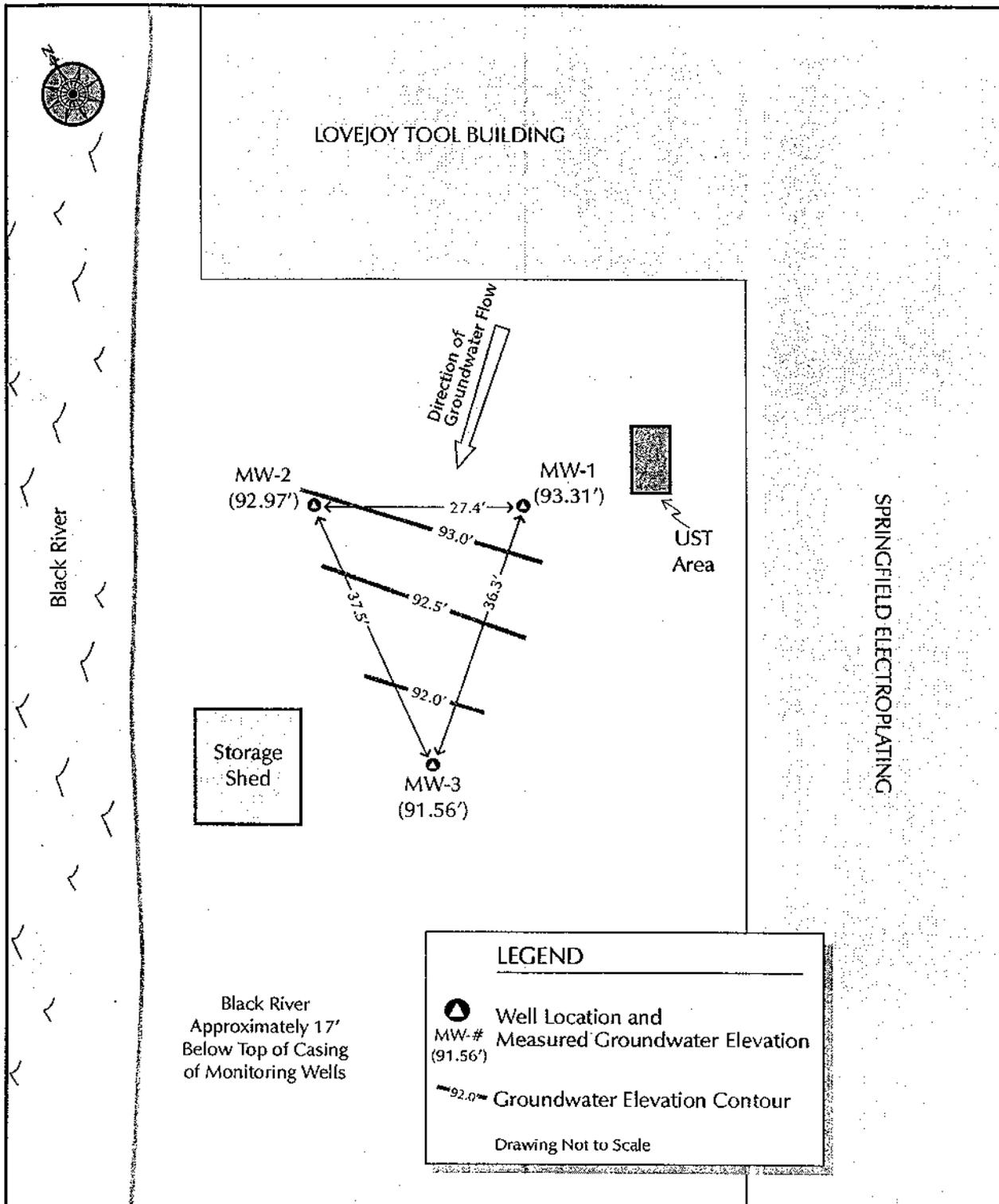
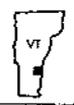


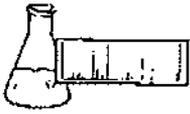
FIGURE 1: MONITORING WELL LOCATIONS AND GROUNDWATER ELEVATION CONTOURS
 Lovejoy Tool & Springfield Electroplating, Springfield, Vermont



Source: Stone Environmental Field Investigations
 j:\proj-98\98-830\figures\site.cdr
 10-23-00 jms

Appendix A
Analytical Results

BILLED AUG 1998



ENDYNE, INC.



Laboratory Services

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

REPORT OF LABORATORY ANALYSIS

CLIENT: Stone Environmental, Inc.
PROJECT NAME: Lovejoy Tool Co.
REPORT DATE: July 26, 1998
DATE SAMPLED: July 16, 1998

PROJECT CODE: STON1742
REF #: 124,216 - 124,218

MAY 11 2000

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

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

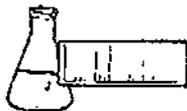
Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

Post-It® Fax Note	7671	Date	5/11	# of pages	6
To	Mike Rossi	From	Mark		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #		Fax #			



ENDYNE, INC.

Laboratory Services

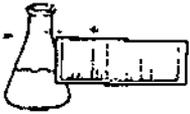
32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 602--PURGEABLE AROMATICS

CLIENT: Stone Environmental, Inc.	DATE RECEIVED: July 17, 1998
PROJECT NAME: Lovejoy Tool Co.	REPORT DATE: July 26, 1998
CLIENT PROJ. #: NI	PROJECT CODE: STON1742

Ref. #:	124,216	124,217	124,218		
Site:	MW-1	MW-2	MW-3		
Date Sampled:	7/16/98	7/16/98	7/16/98		
Time Sampled:	NI	NI	NI		
Sampler:	Jeff Kelley	Jeff Kelley	Jeff Kelley		
Date Analyzed:	7/24/98	7/24/98	7/24/98		
UIP Count:	1	1	1		
Dil. Factor (%):	100	100	100		
Surr % Rec. (%):	85	91	94		
Parameter	Conc. (ug/L)	Conc. (ug/L)	Conc. (ug/L)		
Benzene	<1	<1	<1		
Chlorobenzene	<1	<1	<1		
1,2-Dichlorobenzene	<1	<1	<1		
1,3-Dichlorobenzene	<1	<1	<1		
1,4-Dichlorobenzene	<1	<1	<1		
Ethylbenzene	<1	<1	<1		
Toluene	<1	<1	<1		
Xylenes	<1	<1	<1		
MTBE	<10	<10	<10		

Note: UIP = Unidentified Peaks TBQ = Trace Below Quantitation NI = Not Indicated



ENDYNE, INC.

Laboratory Services

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



REPORT OF LABORATORY ANALYSIS

CLIENT: Stone Environmental
PROJECT NAME: Lovejoy Tool Co.
DATE REPORTED: July 30, 1998
DATE SAMPLED: July 16, 1998

PROJECT CODE: STON1743
REF. #: 124,219 - 124,221

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody indicated sample preservation with HCl.

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 were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

**ENDYNE, INC.**Laboratory Services32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103LABORATORY REPORTTOTAL PETROLEUM HYDROCARBONS (TPH) BY MODIFIED EPA METHOD 8100DATE: July 30, 1998
CLIENT: Stone Environmental
PROJECT: Lovejoy Tool Co.
PROJECT CODE: STON1743
COLLECTED BY: Jeff Kelley
DATE SAMPLED: July 16, 1998
DATE RECEIVED: July 17, 1998

Reference #	Sample ID	Concentration (mg/L) ¹
124,219	MW-1	ND ²
124,220	MW-2	ND
124,221	MW-3	ND

Notes:

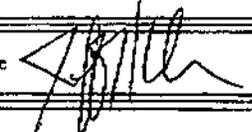
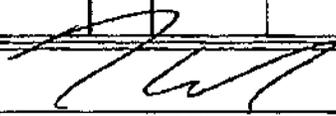
- 1 Values quantitated based on the response of #2 Fuel Oil. Method detection limit is 0.4 mg/L.
- 2 None detected

CHAIN-OF-CUSTODY RECORD

27000

Project Name: LOVESDY TOOL CO.	Reporting Address: 58 E. STATE ST	Billing Address: Same
Site Location: Springfield, VT	Montpelier VT	
Endyne Project Number: STON1743	Company: STONE ENV.	Sampler Name: Jeff Kelley
	Contact Name/Phone #: John Amadon	Phone #: 229-4541

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
124, 219	MW-1	Water	X		7/16/98	2	40mL		see	HCl	
124, 220	MW-2	Water	X		7/16/98	2	40mL	TURBID	Sedim.	HCl	
124, 221	MW-3	Water	X		7/16/98	2	40mL			HCl	

Relinquished by: Signature 	Received by: Signature 	Date/Time: 7/17/98 11:03
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes No

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 1080 Pcu/PCB
4	Nitrite-N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pcu/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 603/602	25	EPA 8240		
29	TCPLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify): RTEX + MTDE with Chrom patterns										

As Specified: TPH by GC

05/11/2000 THU 08:45 FAX 802 878 7103 ENDYNE INC ->>> STONE ENVIRONMENTAL 006/006

Appendix B
Previous
Correspondence



RECEIVED

DEC 5 9 45 AM '97

LOVEJOY TOOL CO., INC.
SPRINGFIELD, VERMONT

December 3, 1997

Ms. Sue Thayer
State of Vermont
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Building
Waterbury, VT 05671-0404

RE: UST Closure Inspection, Lovejoy Tool Company, Springfield, Vermont

Dear Ms. Thayer:

On November 26, 1997, I conducted an investigation of the closure of one underground storage tank (UST) at the Lovejoy Tool Company, located at 133 Main Street in Springfield, Vermont. Enclosed are the completed State of Vermont tank pull inspection forms, site expressway form, a site location map and site photographs.

The UST removed was a 1,000 gallon No.2 fuel oil UST. The UST was constructed of single wall steel. The date of installation for the UST was unknown. The UST was being removed for purposes of abandonment. No replacement UST is to be installed. The UST was adjacent to a UST owned by Springfield Electroplating which was also removed on that date (separate report).

The UST was excavated and removed by Gurney Brothers Excavating, Inc. of Springfield, VT. Cleaning of the UST was conducted by MacIntyre Petroleum of Middlebury, VT. The UST will be transported by Gurney Brothers for disposal, with the final destination being a local scrap dealer. Approximately 15 gallons of waste were generated from the tank cleaning process. The waste consisted of residual fuel and sludge located on the bottom of the UST. Disposal of the waste generated from the tank cleaning process is expected to be conducted by Total Waste Management.

The UST was visually inspected for signs of petroleum leakage or penetrations upon removal. Visual inspection of the UST found it to be in good condition, with no holes or seeps identified. Piping from the UST to the building was inspected and found to be in good condition. A peak PID reading of 48 ppm was recorded from soils located directly under the UST.

The soils in the 1,000 gallon No. 2 fuel oil UST location consisted of medium to coarse brown sands with trace gravel from the surface to 6', which was the limit of excavation for UST removal. Groundwater was not encountered in this excavation, but is believed to be at approximately 15'. No bedrock was encountered in this excavation.

Approximately 20 yards of contaminated soils were removed from the excavation and backfilled into the excavation. Potential sensitive receptors identified during the inspection include soils in the immediate vicinity of the UST basin and the Black River located approximately 100 feet from the site. Visual inspection of the river bank did not reveal any signs of petroleum staining or seeps. All residences and

P.O. Box 943 • Williston, VT 05495 • Phone/Fax 802-865-4288
59 Clinton Street • Plattsburgh, NY 12901 • 518-562-4666 • Fax 518-361-6832

Ms. Sue Thayer
12/3/97
page 2

businesses in the area of the site are served by a municipal water and sewer system. Groundwater flow direction in the vicinity of the closed UST is believed to be toward the south/southwest.

A total of 5 soil samples were collected from the soils which surrounded the UST and were screened for volatile organic compounds (VOCs) with an H-Nu Model PI 101 photo ionization device (PID). All PID readings were recorded, with a peak VOC concentration of 48 ppm (parts per million) detected from a sample collected from under the UST. All soil samples were collected and screened in accordance with Griffin soil sampling protocols. The PID was properly calibrated in accordance with Griffin protocols prior to use. The location, depth and VOC concentration for each sample are tabulated below.

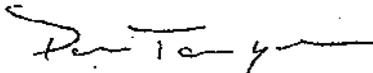
Sample	Location/Excavation	Depth	VOC Concentration
1	top of UST/fill area	2'	40 ppm
2	south side of UST	5'	22 ppm
3	west end of UST	6'	36 ppm
4	west end of UST basin	7'	48 ppm
5	east end of UST basin	7'	46 ppm

Based on data collected during the investigation and visual observations, I have arrived at the following conclusions:

- 1) The UST was in good condition, with no holes or signs of leakage observed.
- 2) Soil contamination was detected during the closure inspection, with a peak PID reading of 48 ppm detected under the former UST location.
- 3) The contamination detected in the excavation is believed to have resulted from overfills/spillage occurring over a period of time.
- 4) Potential sensitive receptors identified are not believed to be at a significant risk of impact from petroleum contamination detected. No reports of petroleum impact to potential receptors have been received.

If you have any questions regarding this closure report, give me a call at your convenience.

Sincerely,



Don Tourangeau
Environmental Technician

- c. Mr. Alex Greer, Lovejoy Tool Company
Mr. Doug Gurney, Gurney Brothers
Mr. Doug Conc, MacIntyre Petroleum

file

ref. b:9741159A.doc

LOVEJOY TOOL CO., INC.
SPRINGFIELD, VERMONT

DEC 5 9 45 AM '97

RECEIVED

Agency Use Only
 Facility ID# _____
 Date of scheduled activity: _____
 Facility _____
 Town _____
 DEC Official _____ Eval. by _____

Vermont Agency of Natural Resources
 Dept. of Environmental Conservation
 Waste Management Division
 103 South Main Street, West Building
 Waterbury, Vermont 05671-0404
 Telephone: (802) 241-3888

Site assessment company: FORN INTERCON
 Site assessor: Don Thompson
 Phone Number of company (or person): (802) 505-4288
 Date of UST closure: 11/26/97
 Date of site assessment: 11/26/97

Section A. Facility Information:

Name of facility: LOVEJOY TOOL COMPANY Number of employees: _____
 Street address of facility: 137 Main Street, Springfield
 Owner of UST(s) to be closed: LOVEJOY TOOL CO Contact (if different than owner): ALEX GREEN
 Mailing address of owner: 137 Main St, Springfield, VT
 Telephone number of owner: 802-875-2194 Contact telephone #: _____

Section B. UST Closure Information: (please check one)

Reason for initiating UST closure: Suspected Leak _____ Liability _____ Replacement _____ Abandoned
 Which Portion of UST is to be closed: _____ Tanks _____ Piping _____ Tanks & Piping

USTs (piping is considered a part of UST system) undergoing permanent closure. Include condition of USTs

UST #	Product	Size (gallons)	Tank age	Tank Condition	Piping age	Piping condition
2	No. 2 Fuel Oil	1000	Unknown	Good	Unknown	Good

Which tanks, if any, will be closed in-place: USTs# N/A Authorized by: _____ Date: _____

Disposal/destruction of removed UST(s): Location Unknown Method Scrap Date: 1/1

Amount (gal.) and type of waste generated from USTs: 10 Gallons

Tank cleaning company (must be trained in confined space entry) McIntyre Petroleum Equipment

Certified hazardous waste hauler: Total Waste Management Generator ID number: _____

Section C. Initial site characterization:

Work in this section must be completed by a professional environmental consultant or hydrogeologist with experience in environmental sampling for the presence of hazardous materials. A full report from the consultant must accompany this form.

PID Information:

Make: H-VU Model: PI101 Calibration information (date, time, gas): 11/26/97 09:30 ISOBUTANE

Excavation information: (some tank pulls require more than one excavation)

Tank(s) # and Excavation (A, B, C, etc)	Depth (ft)	Excavation size (ft ²)	Peak PID reading	Depth of Peak (ft)	Avg PID reading	Bedrock Depth (ft)	Groundwater encountered? (y/n) and at depth (ft)	Soil type
2/A	6'	120	48	7'	38	N/A	NO	COARSE BR. SANDS w/ IRON BARREL

Locate all readings and samples on site diagram

Number of soil samples collected for laboratory analysis? 0 results due date 1/1
 Have any soils been polyencapsulated on site? Yes _____ (#yds' PID range above zero _____) No
 Have any soils been transported off site? Yes _____ list amount (yds'): _____ No
 Location transported to: N/A DEC official who approved _____
 Amount of soils backfilled (yds'): 20 PID range above zero 22 - 40
 Have limits of contamination been defined? Yes _____ No
 Are there any other known contamination on-site? Yes _____ No Comments: _____
 Free Phase product encountered? Yes _____ thickness _____ No
 Groundwater encountered? Yes _____ depth (ft) _____ No
 Are there existing monitoring wells on-site? Yes _____ how many: _____ (locate on site diagram) No
 Have new monitoring wells been installed? Yes _____ how many: _____ (locate on site diagram) No
 Have samples been taken from any monitoring wells for lab analysis? Yes _____ results due date 1/1 No
 Are there a water supply well on site? Yes _____ (check type: shallow _____ rock _____ spring _____) No
 How many public water supply wells are located within a 0.5 mile radius? 0 min. distance (ft.): Unknown
 How many private water supply wells located within a 0.5 mile radius? 0 min distance (ft.): Unknown

Section D: Tanks/Piping Remaining/Installed

Regardless of size, include USTs at site as to *status, e.g. "abandoned", "in use", or "to be installed". (Most installations require permits and advance notice to this office.)

UST#	Product	Size(gallons)	Tank age	*Tank status	Piping age	*Piping Status

There are no other tanks at this site.

Section E. Statements of UST closure compliance:

(must have both signatures or site assessment not complete)

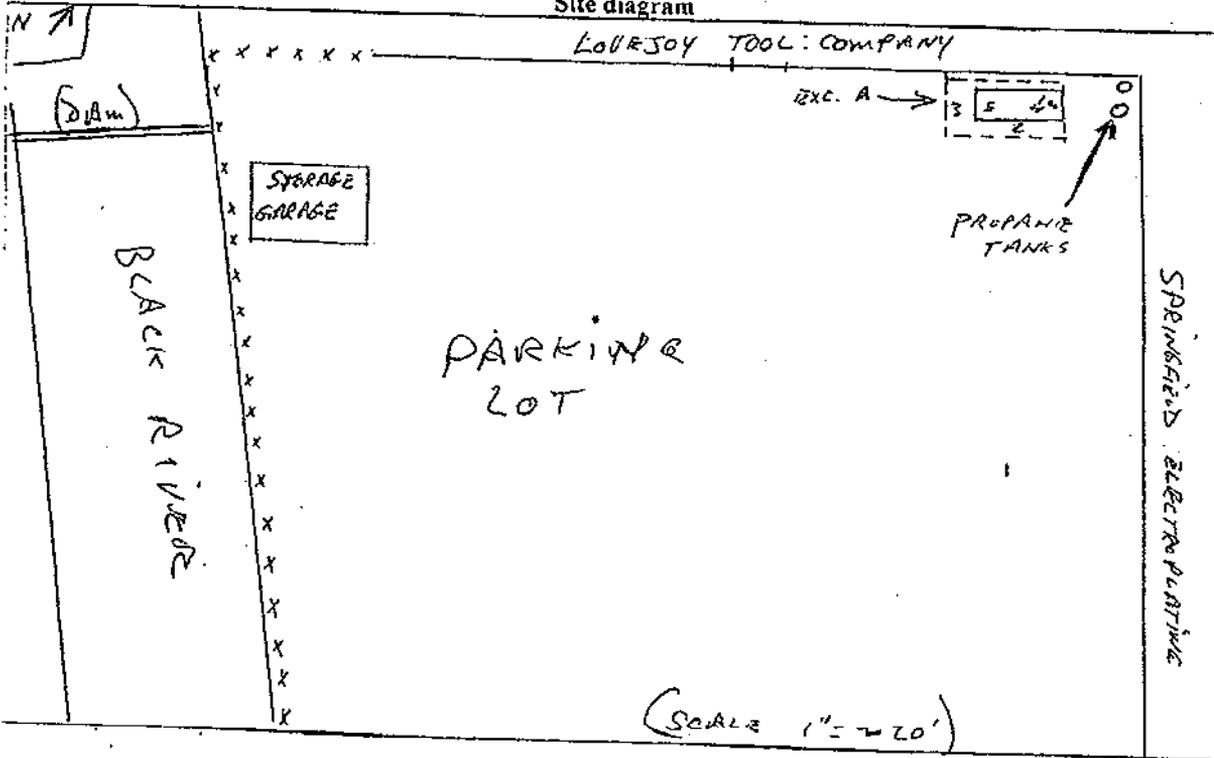
As the party responsible for compliance with the Vermont UST Regulations and related statutes at this facility, I hereby certify that the all of the information provided on this form is true and correct to the best of my knowledge.

Richard [Signature] Date: 11-26-97
 Signature of UST owner or owner's authorized representative

As the environmental consultant on site, I hereby certify that the site assessment requirements were performed in accordance with DEC policy and regulations, and that information which I have provided on this form is true and correct to the best of my knowledge.

[Signature] Date: 11/26/97
 Signature of Environmental Consultant

Site diagram

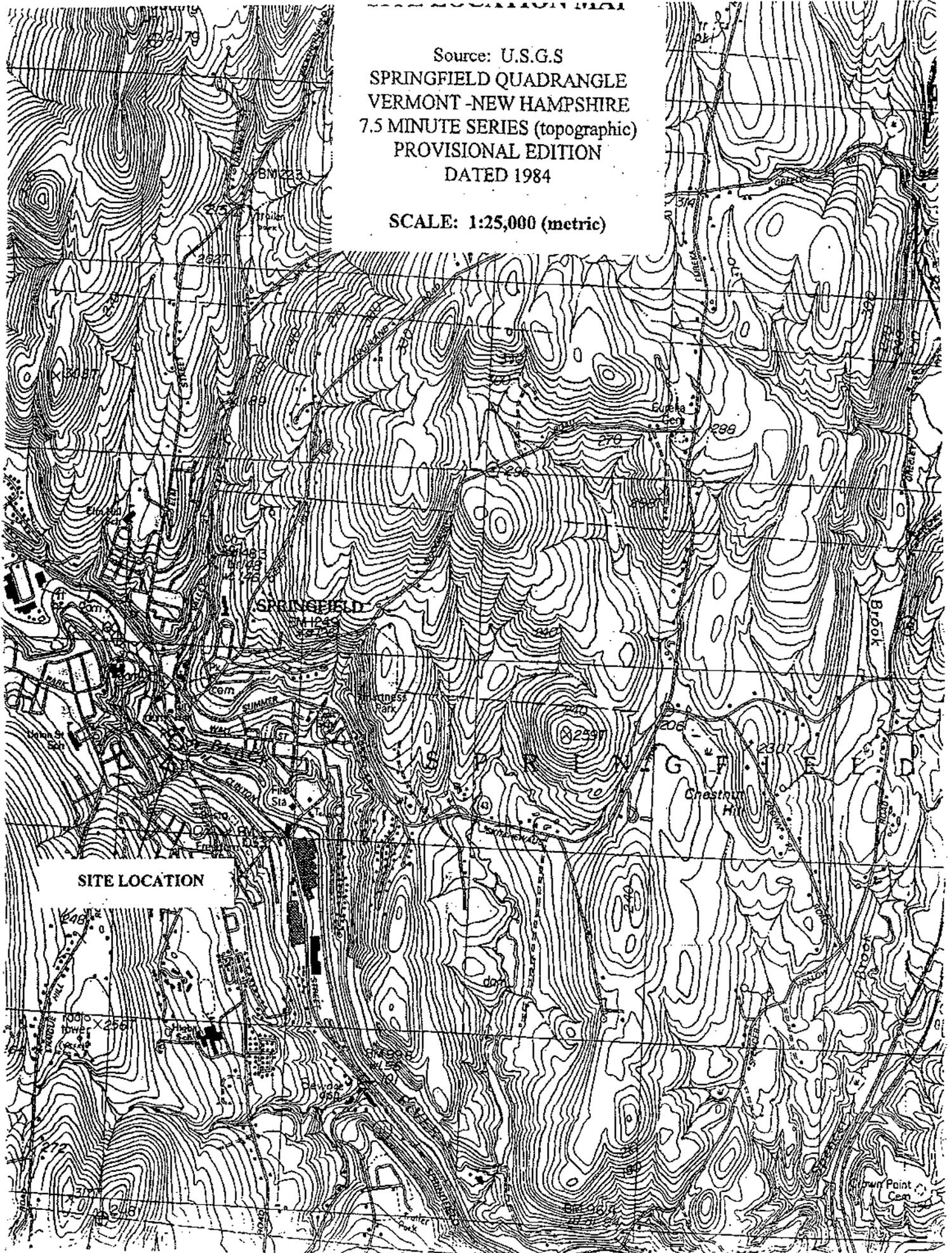


Return form along with complete narrative report and photographs to the Department of Environmental Conservation(DEC), Underground Storage Tank Program within 72 hours of closure.

This Closure Form may only be issued for the facility and the date indicated in the upper left hand corner of page 1. Changes in the scheduled closure date should be phoned in at least 48 hours in advance. Both the yellow and white copies of this form must be returned to the address on the top of page 1 of this form: the pink copy should be retained by the UST owner. A written report from an environmental consultant covering all aspects of closure and site assessment, complete with photographs and any other relevant data, must accompany this form. All procedures must be conducted by qualified personnel, to include training required by 29 CFR 1910.120. Documentation of all methods and materials used must be adequate. All work must be performed in compliance with DEC policy "UST Closure and Site Assessment Requirements" as well as all applicable statutes, regulations, and additional policies. The DEC may reject inadequate closure forms and reports.

Source: U.S.G.S
SPRINGFIELD QUADRANGLE
VERMONT-NEW HAMPSHIRE
7.5 MINUTE SERIES (topographic)
PROVISIONAL EDITION
DATED 1984

SCALE: 1:25,000 (metric)



SITE LOCATION

RECEIVED
Figure 2: Notification figure

DEC 5 9 45 AM '97

Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888, FAX (802) 241-3296

SITE INVESTIGATION EXPRESSWAY NOTIFICATION FORM

LOVEJOY TOOL CO., INC.
SPRINGFIELD, VERMONT

Site Owner: LOVEJOY TOOL COMPANY
Site Name, Town: LOVEJOY TOOL COMPANY, SPRINGFIELD

- Yes, this site will participate in the Site Investigation Expressway Process.
- No, this site will not participate in the Site Investigation Expressway Process.

If yes, please complete the checklist below:

Contamination present in soils above action levels Yes No

If yes, summarize levels:

Free product observed Yes No

Groundwater contamination observed Yes No

Surface water contamination observed Yes No

Suspected release of hazardous substances Yes No

If yes, please explain:

Affected receptors Yes No

If yes, please identify receptors including names and addresses of third party receptors:

Please provide an estimated date of when you expect to submit Site Investigation Report: _____

Owner's Signature/Date: _____ Consultant's Signature/Date: _____

The SMS has reviewed this expressway notification form and approves / disapproves of this action.

SMS Signature/Date: _____



State of Vermont

RECEIVED

APR 28 9 45 AM '98

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

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

LOVEJOY TOOL CO., INC.
SPRINGFIELD, VERMONT

April 27, 1998

Mr. Alex Greer
Lovejoy Tool Company
133 Main Street
Springfield, Vermont 05156

RE: Petroleum Contamination at Lovejoy Tool Company
Springfield, Vermont
SMS Site # 97-2315

Dear Mr. Greer:

The Sites Management Section (SMS) has received the Underground Storage Tank (UST) closure report which outlines the subsurface conditions for the above referenced site. The fieldwork was conducted by Griffin International, Inc. on November 26, 1997. The report is dated December 3, 1997 and summarizes the degree and extent of contamination encountered. The USTs removed include:

- UST #1 - 1,000 gallon No.2 fuel oil UST

During the site activities, screened soils had concentrations up to 48 parts per million (ppm) as measured by a photoionization detector (PID). The peak PID readings were measured at depths of 2 to 7 feet below ground surface (fbgs) in the excavation. The limits of soil contamination were not defined. All soil was used for backfill at the conclusion of the UST removal program.

Site soils consisted of primarily sand with a trace of gravel. Groundwater was not encountered at a (maximum) depth of approximately 7 fbgs. Ground water was estimated to be approximately 15 fbgs.

The Lovejoy Tool Company was inspected for sensitive receptors. The possible receptors potentially affected include groundwater, soil, and nearby surface water of the Black River.

Based on the report information, the SMS has determined additional work is necessary to determine the severity of contamination. Due to possible contamination to nearby receptors, the SMS requests that Lovejoy Tool Company retain the services of a qualified environmental consultant to perform the following:

- Further define the degree and extent of contamination to the soil.
□ If appropriate, determine if the ambient airspace beneath the site building(s) (e.g. basements) has been impacted by the release using a PID. If the ambient air space has been impacted, SMS requests confirmatory sampling and laboratory analyses be performed using EPA Method TO-2.
□ Determine the degree and extent of contamination, if any, to groundwater. A sufficient number of monitoring sites should be installed to adequately define the severity of site contamination. Analyze groundwater samples for BTEX and TPH. At sites proximal to water supply sources, determine the hydrologic relationship of the contaminated area to the water supply source. Pumping influences should be considered in the evaluation.
□ Assess the potential for contaminant impact on sensitive receptors. Base this update on all available

Mr. Alex Greer
Lovejoy Tool Company
Page 2

information and include basements of adjacent buildings, nearby surface water, any proximal drinking water sources, wetlands, sensitive ecologic areas, outdoor or indoor air, sewers, or utility corridors. Sample and analyze any at-risk water supplies for BTEX and TPH compounds.

- Determine the need for long-term treatment and/or monitoring that addresses groundwater contamination.
- Submit a summary report that outlines the work performed, as well as provides conclusions and recommendations. As appropriate include analytical data; a site map showing the location of any potential sensitive receptors, stockpiled soils and monitoring or sample locations; an area map; detailed well logs; and a groundwater contour map.

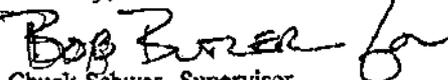
Please have your consultant submit a preliminary work plan and cost estimate or a site investigation expressway notification form within fifteen days of your receipt of this letter, so it may be approved prior to the initiation of onsite work. Enclosed please find a list of consultants who perform this type of work as well as the brochure "Selecting Your UST Cleanup Contractor," which will help you in choosing an environmental consultant.

Based on current information, the underground storage tanks at Lovejoy Tool Company are eligible for participation in the Petroleum Cleanup Fund (PCF). You must provide written proof to the SMS that you hold no other applicable insurance in order to receive reimbursement from the PCF. The owner or permittee must pay for the removal and/or repair of the failed tank(s). The fund will reimburse the tank owner or permittee for 100 percent of all eligible cleanup costs of up to \$1 million. All expenditures must be pre-approved by the Agency or performed in accordance with the "Site Investigation Guidance" expressway program. Please refer to the enclosed guidance document titled, "Procedures for Reimbursement from the Petroleum Cleanup Fund" for additional information concerning the PCF.

The Secretary of the Agency of Natural Resources reserves the right to seek cost recovery of fund monies spent at the Lovejoy Tool Company site if the Secretary concludes that Lovejoy Tool Company is in significant violation of the Vermont Underground Storage Tank Regulations or the Underground Storage Tank statute (10 V.S.A., Chapter 59).

We realize this may be a lot to absorb and respond to. We are here to help make this process as effective and uncomplicated as possible. Please review the enclosed documents and call me with any questions you may have. I can be reached at (802) 241-3876.

Sincerely,


Chuck Schwer, Supervisor
Sites Management Section

Ag Blaise

885-3106

SPW

RS Main ST

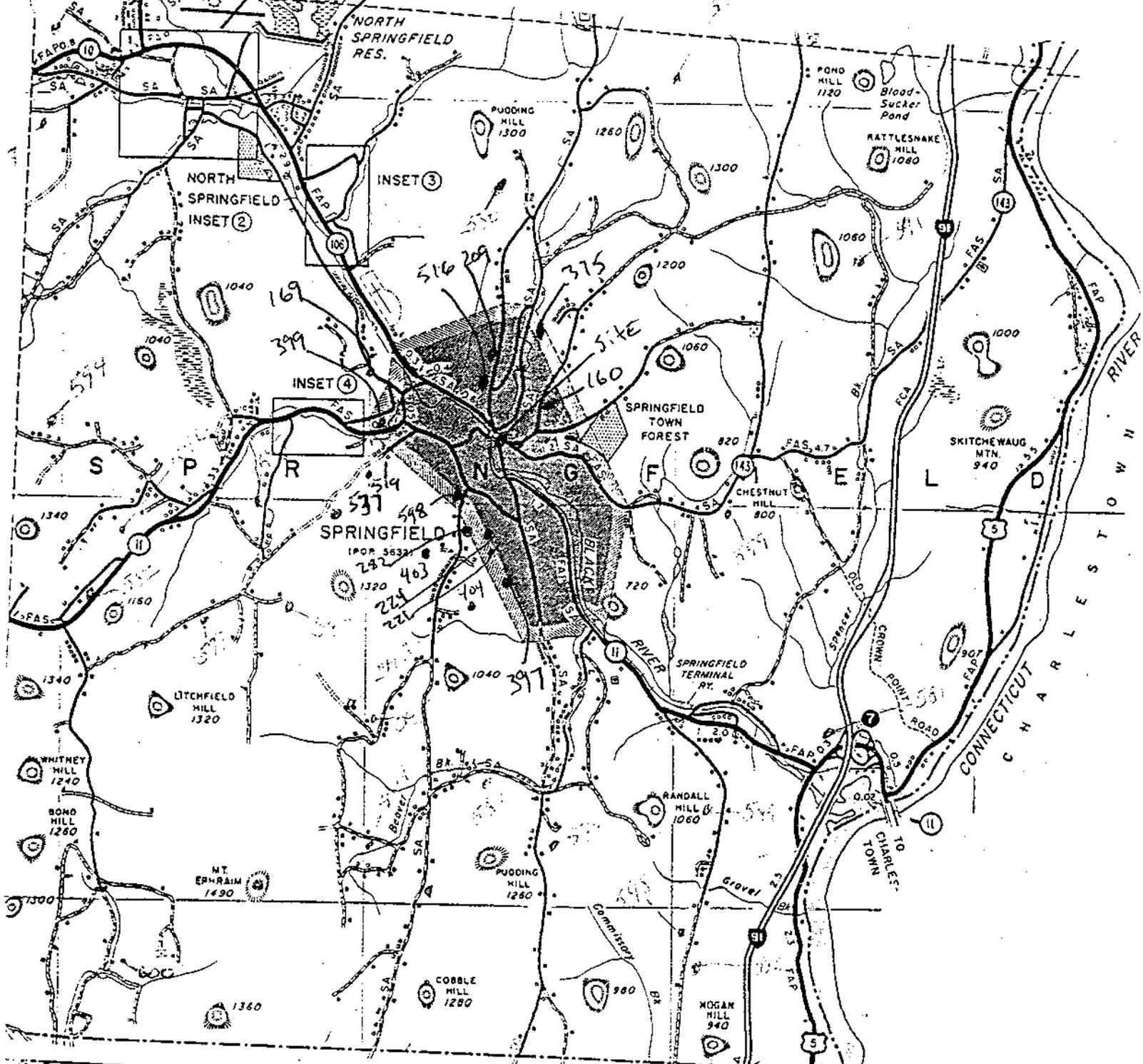
Enclosures (3)

- cc: Springfield Selectboard w/o enclosure
- Springfield Health Officer w/o enclosure
- DEC Regional Office w/o enclosure
- Don Tourangeau, Griffin International, Inc. w/o enclosure

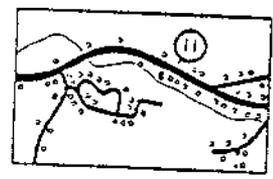
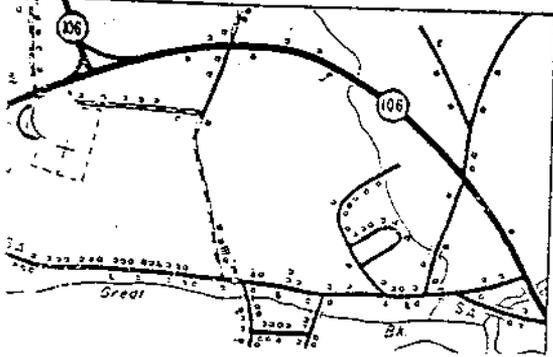
CS:
D:\Bob\files\WPU\2315.wpd

Appendix C
Receptor Analysis
Information

Weathersfield



Rockingham



INSET 4

Handwritten notes:
11
12

Wells Drilled in the town of : Springfield

10/17/2000

Includes Well Completion Reports For Map Cell:

47B3

Rept #	Owner (if known) Or purchaser	Map Cell	Yield GPM	Total Depth (feet)	Depth Rock (feet)	Casing length (feet)	Static Water level	Date Drilled	Driller ID
526	Hasenbuhler, Paul	47B3	2.00	340.00	0.00	29.00	12.00	9/27/93	112
535	Ankuda, Steven	47B3	0.00	505.00	0.00	20.00	33.00	7/27/93	33
549	THE CHRISTADELPHIAN CHUR	47B3	6.00	200.00	0.00	20.00	10.00	7/26/94	112
584	FAWCETT, MRS.	47B3	30.00	245.00	0.00	91.00	0.00	5/02/95	213
585	HORTON, SR., WILBUR	47B3	3.00	400.00	0.00	80.00	20.00	7/20/95	112
588	JASINSKI, MIKE	47B3	2.00	405.00	0.00	55.00	0.00	8/03/95	121
595	CROWN POINT BUILDERS,	47B3	4.00	320.00	0.00	70.00	125.00	8/25/95	112
1,865	BAKER, RALPH	47B3	8.00	165.00	0.00	20.00	24.00	7/06/95	140
3,345	VOGEL, JAMES/CATHERINE	47B3	2.00	340.00	0.00	60.00	0.00	11/11/96	112
3,438	BAILEY, KAREN	47B3	5.00	285.00	0.00	160.00	0.00	9/20/96	121
4,811	FOSTER, DOUG	47B3	2.00	505.00	10.50	60.00	20.00	6/12/97	33
6,924	GEHLY, ALBERT	47B3	25.00	200.00	11.00	86.00	0.00	9/02/98	155
7,386	SHEA, MARY	47B3	40.00	180.00	0.00	160.11	0.00	10/07/98	53
10,472	Whitcomb, Mark	47B3	25.00	205.00	0.00	100.00	0.00	8/09/99	33
10,473	Millay, Larry	47B3	20.00	205.00	0.00	66.00	26.00	8/09/99	33
11,001	Flint, Robert	47B3	20.00	200.00	0.00	20.00	0.00	7/13/99	53
11,056	Loche, Charles	47B3	6.00	440.00	0.00	40.50	0.00	12/31/99	53
11,427	Clark, Joe/Holland	47B3	2.75	300.00	0.00	60.00	12.00	9/29/99	155
14,208	Matulonis, Herman	47B3	2.00	305.00	0.00	36.00	6.00	10/14/99	33
14,209	Burke, Wayne	47B3	2.00	405.00	0.00	20.00	4.00	10/15/99	33

Wells Drilled in the town of : Springfield

10/17/2000

Includes Well Completion Reports For Map Cell: 47B2

Rept #	Owner (if known) Or purchaser	Map Cell	Yield GPM	Total Depth (feet)	Depth Rock (feet)	Casing length (feet)	Static Water level	Date Drilled	Driller ID
175	MCFADDEN, GLENDON	47B2	12.00	355.00	0.00	20.00	5.00	10/03/76	112
299	CARROLL, JOHN	47B2	5.00	150.00	0.00	19.00	0.00	10/10/83	164
324	MacGillivray, Peter	47B2	3.00	250.00	0.00	30.00	0.00	7/18/85	164
355	Currier, Robert	47B2	5.00	170.00	0.00	42.00	40.00	4/30/85	112
375	Merriam, John	47B2	60.00	236.00	0.00	32.00	0.00	4/17/87	164
390	Cenate, Darlton	47B2	50.00	210.00	0.00	85.00	43.00	5/25/88	112
398	Aiello, Matheu	47B2	15.00	205.00	0.00	40.00	20.00	3/14/88	33
399	Rogers, Scott	47B2	0.00	605.00	0.00	340.00	300.00	7/25/88	33
402	Palieii, Richard	47B2	1.00	390.00	0.00	40.00	20.00	11/05/88	33
413	Markert, Henry	47B2	10.00	120.00	0.00	20.00	0.00	6/20/89	164
419	Maynes, Doug	47B2	0.00	420.00	0.00	101.00	0.00	7/26/89	164
432	Springfield, Town of,	47B2	0.00	10.00	0.00	0.00	0.00	10/30/89	24
433	Springfield, Town of,	47B2	0.00	22.00	0.00	0.00	0.00	10/30/89	24
434	Springfield, Town of,	47B2	0.00	17.00	0.00	0.00	0.00	10/31/89	24
435	Springfield, Town of,	47B2	9.00	74.00	0.00	0.00	13.00	10/31/89	24
436	Springfield, Town of,	47B2	0.00	17.00	0.00	0.00	0.00	10/30/89	24
437	Springfield, Town of,	47B2	0.00	10.00	0.00	0.00	0.00	11/01/89	24
438	Springfield, Town of,	47B2	0.00	7.00	0.00	0.00	0.00	11/01/89	24
439	Springfield, Town of,	47B2	0.00	20.00	0.00	0.00	0.00	11/01/89	24
440	Springfield, Town of,	47B2	20.00	79.00	0.00	69.00	7.00	11/03/89	24
441	Springfield, Town of,	47B2	40.00	65.00	0.00	56.00	7.00	11/28/89	24
442	Springfield, Town of,	47B2	0.00	70.00	0.00	0.00	6.00	11/06/89	24
443	Springfield, Town of,	47B2	0.00	42.00	0.00	0.00	7.00	11/07/89	24
463	Windy Hill Acres Mobile Home Par	47B2	8.00	545.00	0.00	0.00	0.00	10/02/90	121
480	Hutchinson, Tim	47B2	8.00	100.00	0.00	22.00	0.00	4/20/91	16
483	Fletcher, Joe	47B2	30.00	555.00	0.00	50.00	0.00	6/06/91	121
516	Cenate and Sons Bldr,	47B2	4.00	240.00	0.00	118.00	28.00	4/04/93	112
519	Hurd, Carl	47B2	3.00	200.00	0.00	68.00	0.00	6/04/93	51
541	FORTUNE, MERRILEE	47B2	12.00	205.00	0.00	20.00	0.00	10/29/93	121
542	MUTHER, GEOFF	47B2	30.00	225.00	0.00	70.00	0.00	9/16/93	121
580	KANERVA, AL	47B2	1.00	505.00	0.00	20.00	0.00	8/25/94	121
3,234	RYON, BARBARA	47B2	4.00	400.00	0.00	60.00	0.00	11/01/96	53
3,747	SNIDE, CARL	47B2	2.00	400.00	0.00	20.00	22.00	6/04/97	112
4,477	,GTE TELEPHONE	47B2	0.00	0.00	0.00	0.00	0.00	9/18/93	112
4,810	,CRAIGE	47B2	3.00	405.00	19.00	40.00	5.00	11/04/96	33

Wells Drilled in the town of : Springfield

10/17/2000

Includes Well Completion Reports For Map Cell: 47B2

Rept #	Owner (if known) Or purchaser	Map Cell	Yield GPM	Total Depth (feet)	Depth Rock (feet)	Casing length (feet)	Static Water level	Date Drilled	Driller ID
5,119	Nichols, Frank	47B2	5.00	180.00	15.00	40.60	2.00	8/26/97	209
7,605	Woychasky, Mike	47B2	1.00	260.00	0.00	20.00	30.00	10/22/98	155
8,003	Graham, John	47B2	3.00	425.00	0.00	20.00	10.00	11/10/98	176
9,714	Stewart, Mr.	47B2	8.00	545.00	0.00	28.00	0.00	4/16/97	121
11,456	Cenate, Darlton	47B2	2.50	300.00	0.00	30.00	26.00	//	155

Wells Drilled in the town of : Springfield

10/17/2000

Includes Well Completion Reports For Map Cell: 47B3

Rept #	Owner (if known) Or purchaser	Map Cell	Yield GPM	Total Depth (feet)	Depth Rock (feet)	Casing length (feet)	Static Water level	Date Drilled	Driller ID
2	RICHARDSON, GLEN	47B3	9.00	105.00	0.00	78.00	14.00	8/27/66	15
225	ABRAHAMOVICH, MICHAEL	47B3	4.00	200.00	0.00	40.00	3.00	9/24/79	16
309	Dopp, Harland	47B3	2.00	175.00	0.00	67.00	2.00	1/29/85	164
310	Smolnik, Fred	47B3	2.00	250.00	0.00	60.00	15.00	12/11/84	164
325	Knight, Spencer	47B3	7.00	300.00	0.00	150.00	50.00	2/15/85	164
335	Ruse, Jr., Paul	47B3	6.00	350.00	0.00	202.00	0.00	9/11/85	164
336	Perry Estate, Willis	47B3	10.00	385.00	0.00	54.00	0.00	8/07/87	26
338	Pyper, Gordon	47B3	20.00	100.00	0.00	20.00	15.00	4/02/86	164
360	Riley, Timothy	47B3	3.00	205.00	0.00	26.00	20.00	5/18/87	33
367	Schaefer, Kim	47B3	20.00	162.00	0.00	162.00	0.00	7/14/87	164
368	Childs, Robert	47B3	4.00	150.00	0.00	38.00	0.00	7/16/87	164
370	Dionne, Paul	47B3	15.00	300.00	0.00	35.00	0.00	7/03/87	164
377	McCarty, Tom	47B3	9.00	100.00	0.00	32.00	0.00	9/23/87	164
380	Hobbs, Robert	47B3	4.00	150.00	0.00	137.00	0.00	11/19/87	164
381	Kesek, David	47B3	18.00	275.00	0.00	75.00	0.00	11/17/87	164
382	Olson, Paul	47B3	50.00	160.00	0.00	160.00	0.00	12/15/87	164
385	Matush, Stephen	47B3	1.00	250.00	0.00	250.00	0.00	4/07/88	164
388	Shea, Robert	47B3	4.00	150.00	0.00	55.00	0.00	4/08/88	164
393	York, Margaret	47B3	4.00	150.00	0.00	75.00	0.00	9/21/88	164
397	Farnsworth, Robert	47B3	3.00	505.00	0.00	20.00	10.00	7/07/88	33
403	Mountain View Associates,	47B3	15.00	205.00	0.00	90.00	0.00	11/30/88	121
404	Lasell, Harry	47B3	12.00	115.00	0.00	105.00	25.00	1/23/88	15
414	Diamond, Larry	47B3	15.00	180.00	0.00	40.00	0.00	7/03/89	164
425	Creigh, Sam	47B3	0.00	420.00	0.00	142.00	0.00	12/06/89	164
428	Millay, Steve	47B3	6.00	260.00	0.00	101.00	0.00	11/13/89	164
430	Watkins, Jesse	47B3	40.00	85.00	0.00	41.00	20.00	7/24/89	15
464	Hill, Roy	47B3	30.00	200.00	0.00	183.00	0.00	9/11/90	164
472	Sprague, John	47B3	6.00	120.00	0.00	81.00	0.00	10/19/90	164
491	Rounds Builders, Henry	47B3	25.00	240.00	0.00	20.00	0.00	7/19/91	53
493	Sprague, Arlene	47B3	5.00	365.00	0.00	60.00	10.00	8/06/91	176
496	Reeves, Andy	47B3	30.00	140.00	0.00	42.00	13.00	1/04/91	15
498	Walker, George & Nancy	47B3	7.00	360.00	0.00	150.00	0.00	12/09/91	53
514	Harriman, Jeff	47B3	2.00	305.00	0.00	20.00	0.00	1/17/93	121
524	Benner, Dennis	47B3	30.00	280.00	0.00	20.00	0.00	9/22/93	112
525	Locke, Charlie	47B3	2.00	320.00	0.00	32.00	0.00	9/25/93	112