MAR 08 2006

March 7, 2006

STONE ENVIRONMENTAL INC

535 Stone Cutters Way
Montpelier, Vermont
05602 USA

Phone / 802.229.4541
Fax / 802.229.5417
Web Site / www.stone-env.com

Alan Shelvey, City Engineer
Town of Rutland, Public Works Department
52 Washington St.
Rutland, VT 05702

SEI No. 051691-R
RE: Initial Site Investigation Report, Rutland Town Hall, Rutland Vermont,
SMS Site # 1990-0563

Dear Alan:

Stone Environmental, Inc. (Stone) is pleased the following Initial Site Investigations Report for the Rutland Town Hall site (the Site). This site investigation was conducted in accordance to the scope of work outlined in your Notice of Bid letter dated October 28, 2005 with the exception of alterations as specified below. Field work portions of this site investigation occurred on January 11, 2006.

1.0 INTRODUCTION

According to correspondence from the Vermont DEC Sites Management Section (SMS) the Site has undergone two underground storage tank (UST) removal events. The first of these events, in August of 1990, removed two, unspecified USTs. During removal activities and follow-up sub-surface investigation, soil and groundwater were found to be impacted. Two USTs (UST #1 an 8,000-gallon UST adjacent the northeast corner of the Town Hall and UST #2 a 1,000-gallon UST adjacent the southeast corner of the Town Hall)were removed on November 6, 2003. During the second event, petroleum contamination was detected in soils adjacent to the former tanks. According to Town of Rutland personnel, USTs from the second removal event were co-located with those from the first removal effort, that is UST #1 was co-located with one of the USTs from the first removal and UST #2 was co-located with the other.

The purposes of this investigation were to 1) determine the impact, if any, that these releases had on groundwater and 2) to determine if indoor air in the Town Hall basement is being affected by vapor intrusion from the spills.

2.0 METHODOLOGY

During UST removal activities, presence of groundwater was not confidently determined, however, during this site investigation effort, while advancing well installation tooling, Stone observed no

groundwater prior to refusal. As true groundwater was not encountered during the drilling of either soil boring, monitoring wells were not installed.

2.1 Soil Boring

Proposed boring locations were assigned by Town of Rutland personnel. Horizontal locations for each boring were measured using a tape measure from building corners and are shown in the site sketch in Attachment 1. For the purposes of assessing the impact of the spill from the former fuel oil USTs, soils were continuously sampled using a dual tube soil sampling system. The dual tube system prevents cross-contamination of undisturbed soils by those situated higher stratigraphically. Soil borings SB-1 (located on the northwest corner (downgradient) of the former excavation for UST 1) and SB-2 (located in the middle of the former excavation for UST 2) were retrieved in 1.5-inch outside diameter acetate tubes and logged for soil type, color, moisture content and visible signs of petroleum contamination by Stone field staff. To assess distribution of petroleum contamination within each soil boring, Stone sub-sampled each boring at depths exhibiting a transition of soil types. Sub-samples were placed in clean Ziploc bags and screened for volatile organic compounds (VOCs) using a Thermo Electron photoionization detector (PID) in accordance with the Vermont DEC, Sites Management Section guidance document *Agency Guidelines for Petroleum Contaminated Soil and Debris*. Stone field staff calibrated the PID the day of field work using isobutylene calibration gas referenced to benzene.

Samples with highest concentration of contamination in each boring and from the deepest depth achieved were sent to Endyne Laboratory in Williston, VT for total petroleum hydrocarbon (TPH) analyses via EPA Method 8015 diesel range organics (DRO) and VOCs via EPA Method 8260.

Upon completion of each bore hole, native soils were backfilled and finished to grade with asphalt.

2.2 Indoor Air Quality Monitoring

The objective of the indoor air monitoring portion of this investigation was to assess the presence of petroleum vapor intrusion in the basement workspace from contaminants associated with the leaky UST adjacent the northeast corner of the building. To accomplish this objective, Stone staff inspected all accessible areas of the Rutland Town Hall basement for visible signs of petroleum contamination. Airspace in the workspace and proximal to basement walls and floors were scanned for VOCs using a PID.

2.3 Sump Sampling

During the assessment of indoor air quality of the Town Hall basement, Stone field staff observed that a sump located within the boiler room contained water. Since monitoring wells could not be installed, approval was granted by Town of Rutland officials to alter the original scope of work and to sample the water within the sump. This sample was sent to Endyne Laboratory for analysis via EPA Method 8260.

3.0 RESULTS

3.1 Results from Soil Borings

Results from soil logging at each location are presented in Attachment 2: Soil Boring Logs. Generally, soils can be described as coarse grained sand and gravel underlain by interbedded silts and fine sands which are underlain by very tight, poorly-sorted clay, silt, sand and gravel diamicton (glacial till). Water saturated soils were observed in several layers within each soil boring beginning at 1.5 feet below ground surface (bgs) in SB-1 and at 10 feet bgs in SB-2, but were not continuous; wet intervals were underlain by dry soils. Stone believes that these zones represent slugs of meteoric water slowly migrating though low conductivity soils following recent rain events.

3.1.1 Field Screening Results

Results from field screening of soils for SB-1 are presented in the table below.

SB-1 Depth (feet)	VOCs (ppm)
6.0	5.9
10.0	1.8
16.5	0.3

The highest concentrations of VOCs within SB-1 (5.9 parts per million (ppm)) are at a depth of 6.0 feet bgs. Assuming UST 1 was a standard shape for this size tank (10,000-gallons), it would have had a 10.5-foot diameter, putting the greatest contamination at a depth slightly deeper than half-way down the former UST 1 excavation.

No samples collected from SB-2 were measured to contain VOCs above the detection limit of the PID.

3.1.2 Fixed Lab Analytical Results – Soil Borings

Laboratory reports for every sample collected during this investigation can be found in Attachment 3. Results from soil borings can be found in the table below in comparison to VT DEC guidelines and EPA Region 9 Preliminary Remediation Goals (PRGs) for residential soils. The Town Hall Property is bordered by commercial property to the west, south and north and residential property to the east.

SW 846 EPA Method 8015 DRO	SB-1, 6.0' bgs	SB-1, 10.0' bgs	SB-2, 7.0' bgs	VT DEC
TPH (mg/kg)	639	46.6	<5.0	250-residential 1000-industrial

SW 846 EPA Method 8260 (detects only)	SB-1, 6.0' bgs	SB-1, 10.0' bgs	SB-2, 7.0' bgs	EPA Region 9 PRGs (residential)
n-Butylbenzene (ug/kg)	113	<18.0	<18.0	240.000
sec-Butylbenzene (ug/kg)	77.6	<18.0	<18.0	220,000
Isopropylbenzene (ug/kg)	20.9	<18.0	<18.0	570,000
p-Isopropyltoluene (ug/kg)	42.4	<18.0	<18.0	no standard
Napthalene (ug/kg)	47.9	<36.0	<36.0	56,000
n-Propylbenzene (ug/kg)	21.2	<18.0	<18.0	240,000
1,2,4-Trimethylbenzene (ug/kg)	44.6	<36.0	<36.0	52,000
Unidentified Peaks (UIPs)	>10	>10	0	

As depicted in the table above, the majority of residual contaminant mass in SB-1 lies at 6.0 feet bgs. From the number of UIPs observed within the analyses for both samples from SB-1, it is apparent that hydrocarbons other than those listed in the 8260 analyses are present and may overlap with those peaks that make up the TPH analysis.

3.2 Indoor Air Quality Monitoring

Attachment 4 depicts a basement-level floor plan for the Town Hall and room designation number. Results from indoor air monitoring are presented in the table below.

Room Designation	VOC concentration (ppm)	Description
1	0.0 ppm	Water pump room
2	0.0 ppm	Vacant room
3	0.0 ppm	Archive Room

4	0.0 ppm	Archive closet
5	0.0 ppm, 5.0 ppm*	Fuel oil tanks for older portion of the Town Hall.
6	NA	Electrical room, inaccessible
7	0.0 ppm	Mechanical Room
8	0.0 ppm	Boiler Room, sump location
9	0.3 ppm**	Crawlspace
10	0.0 ppm	Fuel oil tanks and furnace for new portion of the Town Hall.

*Reading taken adjacent fuel filter for oil tanks. **Reading may be false positive due to high humidity of the crawlspace area.

No visible signs of petroleum contamination from the former USTs were observed during the assessment of indoor air quality. Elevated readings on the PID were noted in two locations: within Room #9 and adjacent to the fuel filter in Room #5. Room #9 can be described as a sealed crawlspace beneath the vault and bathroom of the Town Clerks office. This area of the basement has a soil floor and is very wet. High humidity can result in difficulties when using a PID. Stone believes that elevated readings seen in this area are a false positive resulting from moisture. Located within Room #5 are two above ground storage tanks. Elevated levels of VOCs were detected surrounding the fuel filter and likely are the result of spilling small amounts of fuel during maintenance of the filter.

3.3 Sump Sampling Results

Analysis of water collected from the Boiler Room sump found no concentrations higher than the laboratory detection limit for every compound of interest.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Through the course of this investigation, it has been determined that residual contamination remains in area of former UST #1. The extent of contamination within this area is limited to backfill soils within the former excavation with the highest concentrations located at 6.0 feet bgs. Field screening of soil at 16.5' bgs suggests that contamination has not migrated to depths deeper than the excavation. As groundwater was not encountered, Stone cannot verify whether impact to groundwater has occurred.

Assessment of indoor air and sump water within the Town Hall basement showed that these receptors have not been impacted.

According to the Vermont DEC *Site Management Activity Completed (SMAC) Designation Procedure* guidance document, this site should be considered for SMAC designation. Conditions for a Site to receive SMAC designation include: 1) the source, nature, degree and extent of contamination has been adequately defined; 2) the source of contamination has been removed or adequately mitigated; 3) levels of contaminants are stable, falling or non-detectable as monitored over a reasonable period of time; 4) No unacceptable threat to human health or the environment exists at the site; and 5) the site has evaluated to verify that migration of contaminants from soil to groundwater is not occurring at concentrations which will result in an exceedence of VT groundwater enforcement standards. Other conditions listed for SMAC designation are not applicable to this situation. Results from this investigation indicate that these criteria have been met. It is important to note that SMAC does not alleviate the Town of Rutland from future liability associated with this Site, but does imply that no further investigation is needed.

Sincerely yours,

Daniel Voisin, Staff Geoscientist
Stone Environmental, Inc.

Direct Phone / 802.229.1875
E-Mail / dvoisin@stone-env.com

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c.c. Ashley Desmond
Vermont DEC, Waste Management Division
Sites Management Section
103 South Main Street, West Building
Waterbury, VT 05671- 0404

ATTACHMENT 1: SOIL BORING LOCATIONS

OBSERVATIONS AND REMARKS

STONE ENVIRONMENTAL INC

535 Stone Cutters Way
Montpelier, Vermont
05602 USA

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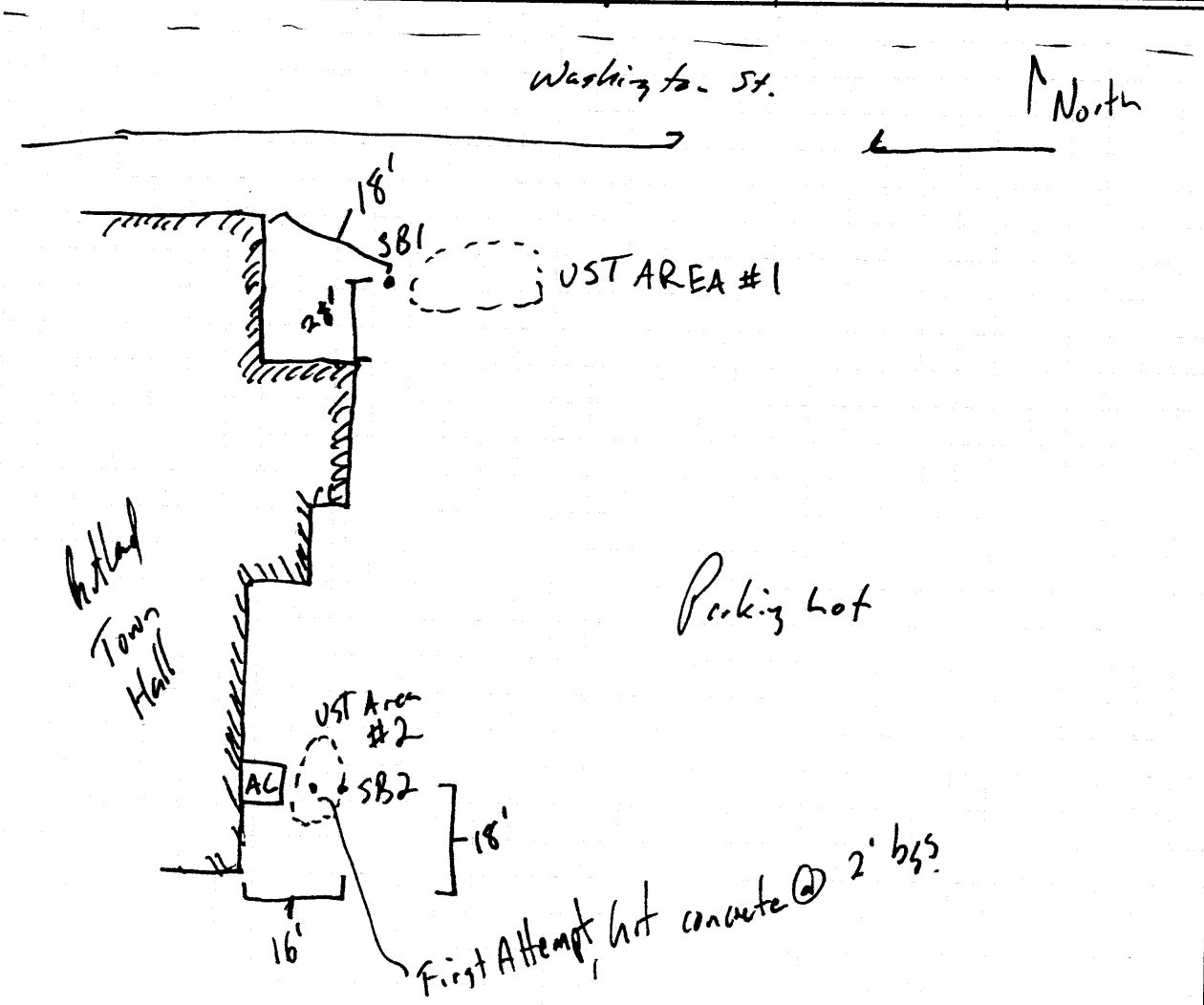
Project Name/Description: Rutland City Hall Site Investigation Site Sketch

SEI Project #: 051691-R

Client/Sponsor: City of Rutland / Alan Shelvey



Signed: _____ Date: 1/11/06

5 squares = 1 inch

Page: ____ of ____

ATTACHMENT 2: SOIL BORING LOGS

FIGURE 1
SOIL BORING NO. 1
Rutland City Hall Site Investigation

Date Drilled: 1/11/2006
Logged by: Dan Voisin

SOURCE: Stone field notes, January 2006.
DATE/INITIALS: 1/12/06, anm
PATH: O:\Proj-05\1691-R\Data\Logplots\SB1.dat

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DEPTH (Feet)	WATER LEVEL	SAMPLE INTERVAL	RECOVERY	LITHOLOGY	GENERAL LITHOLOGY AND COMMENTS (based on field notes, geoscientist interpretation, and laboratory results)
0					ASPHALT
					GRAVEL AND SAND: Dark tan to brown; moist; arg. clast
					GRAVEL AND SAND: Dry; coarse with white marble shards
					SILTY SAND: Olive to brown; wet to moist; trace pebbles
					ROCK: Marble rock
					COARSE SAND: Rusty; dry; trace pebbles
-5					HEAVE: Asphalt and gravel
					GRAVEL AND SAND: Dry; with white marble
					SAND, SILT, AND CLAY: Olive gray; wet; trace gravel; strong petroleum odor at 6.0 ffet. Some black fine product noted at bottom. Sample taken at 6.0; VOCs = 5.9 ppm.
					HEAVE
-10					SANDY CLAY: Damp to wet; gray-brown; some gravel
					SILTY CLAY: Olive gray; trace sand and gravel; strong petroleum odor at 10.0; sample taken at 10.0; VOCs = 1.8 ppm.
					GRAVEL AND SAND: Wet; brown; coarse.
					SANDY SILT: Olive gray; trace pebbles.
					SILTY SAND: Wet; trace pebbles.
-15					SILTY SAND: Dry; trace pebbles.
					SANDY SILT: Wet; olive gray with rusty mottles; till with trace pebbles and clay.
					SANDY SILT: Damp; olive gray; loose till with trace pebbles and clay. Sample at 16.5 feet; VOCs = 0.3 ppm.
					SANDY SILT: Dry; olive gray; till with trace clay and gravel. Very tight.
					Refusal at 17.5 feet; end of hole.

FIGURE 2
SOIL BORING NO. 2
Rutland City Hall Site Investigation

Date Drilled: 1/11/2006
Logged by: Dan Voisin

SOURCE: Stone field notes, January 2006.
DATE/INITIALS: 1/12/06, anm
PATH: O:\Proj-05\1691-R\Data\Logplots\SB2.dat

STONE ENVIRONMENTAL INC

DEPTH (Feet)	WATER LEVEL	SAMPLE INTERVAL	RECOVERY	LITHOLOGY	GENERAL LITHOLOGY AND COMMENTS (based on field notes, geoscientist interpretation, and laboratory results)
0					GRAVELLY SAND: Dry; brown; coarse with trace asphalt
					SAND: Damp; brown; trace gravel
-5					SAND: Damp; brown; coarse to medium with trace gravel
					SANDY LOAM: Dry to damp; black; trace white sand (marble); sample at 5.5; VOCs = 0.0 ppm.
					LOAMY SAND: Dry; black brown
					SILTY SAND: Damp; tan; trace gravel and clay; sample at 7.0; VOCs = 0.0 ppm.
-10					SILTY SAND: Tan to light brown; trace gravel and clay; damp from 10.0 to 10.4; wet from 10.4 to 12.0; damp from 12.0 to 13.0; dry from 13.0 to 13.4; samples at 10.0 and 12.0; VOCs = 0.0 and 0.0 ppm, respectively.
-15					SILTY SAND: Tan; coarse with trace gravel; saturated zones throughout; some unsaturated zones particualrly at 17.3 to 17.6 and 15.0 to 15.3.
-20					SILTY SAND: Saturated; tan; coarse with trace gravel
					SILTY SAND: Damp; tan; trace gravel
					SILTY SAND: Dry; tan with rusty mottles; trace gravel; sample at 23.6; VOCs = 0.0 ppm.
					Refusal at 23.6 feet; end of hole.
-25					

ATTACHMENT 3: LABORATORY REPORT

ENDYNE, INC

Laboratory Services

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

LABORATORY REPORT

Stone Environmental, Inc.
535 Stone Cutters Way
Montpelier, VT 05602
Attn: Dan Voisin

PROJECT: Rutland Town Hall/05-1691-R
ORDER ID: 42501
RECEIVE DATE: January 12, 2006
REPORT DATE: January 30, 2006

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

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ENDYNE, INC

Laboratory Services

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

LABORATORY REPORT
SW 8260

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
SITE: SB1-6.0
DATE RECEIVED: January 12, 2006
REPORT DATE: January 30, 2006
ANALYSIS DATE: January 24, 2006

ORDER ID: 42501
REFERENCE NUMBER: 267292
DATE SAMPLED: January 11, 2006
TIME SAMPLED: 9:30 AM
SAMPLER: DV
ANALYST: 725

Parameter	Result ug/kg, as received	Parameter	Result ug/kg, as received
Benzene	< 16.0	1,1-Dichloropropene	< 16.0
Bromobenzene	< 16.0	cis-1,3-Dichloropropene	< 16.0
Bromochloromethane	< 32.0	trans-1,3-Dichloropropene	< 16.0
Bromodichloromethane	< 16.0	Ethylbenzene	< 16.0
Bromoform	< 16.0	Hexachlorobutadiene	< 32.0
Bromomethane	< 80.0	Isopropylbenzene	20.9
n-Butylbenzene	113.	p-Isopropyltoluene	42.4
sec-Butylbenzene	77.6	Methylene Chloride	< 80.0
tert-Butylbenzene	< 16.0	MTBE	< 32.0
Carbon Tetrachloride	< 16.0	Naphthalene	47.9
Chlorobenzene	< 16.0	n-Propylbenzene	21.2
Chloroethane	< 80.0	Styrene	< 16.0
Chloroform	< 16.0	1,1,1,2-Tetrachloroethane	< 32.0
Chloromethane	< 48.0	1,1,2,2-Tetrachloroethane	< 32.0
2-Chlorotoluene	< 16.0	Tetrachloroethene	< 16.0
4-Chlorotoluene	< 16.0	Toluene	< 16.0
Dibromochloromethane	< 16.0	1,2,3-Trichlorobenzene	< 32.0
1,2-Dibromo-3-Chloropropane	< 32.0	1,2,4-Trichlorobenzene	< 32.0
1,2-Dibromoethane	< 32.0	1,1,1-Trichloroethane	< 16.0
Dibromomethane	< 32.0	1,1,2-Trichloroethane	< 16.0
1,2-Dichlorobenzene	< 16.0	Trichloroethene	< 16.0
1,3-Dichlorobenzene	< 16.0	Trichlorofluoromethane	< 32.0
1,4-Dichlorobenzene	< 16.0	1,2,3-Trichloropropane	< 32.0
Dichlorodifluoromethane	< 80.0	1,2,4-Trimethylbenzene	44.6
1,1-Dichloroethane	< 16.0	1,3,5-Trimethylbenzene	< 16.0
1,2-Dichloroethane	< 16.0	Vinyl Chloride	< 32.0
1,1-Dichloroethene	< 16.0	Xylenes, Total	< 32.0
cis-1,2-Dichloroethene	< 16.0	Surrogate 1	95.%
trans-1,2-Dichloroethene	< 16.0	Surrogate 2	100.%
1,2-Dichloropropane	< 16.0	Surrogate 3	95.%
1,3-Dichloropropane	< 16.0	UIP's	> 10.
2,2-Dichloropropane	< 16.0	Percent Solids	NA

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Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
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LABORATORY REPORT

SW 8260

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
SITE: SB1-10.0
DATE RECEIVED: January 12, 2006
REPORT DATE: January 30, 2006
ANALYSIS DATE: January 24, 2006

ORDER ID: 42501
REFERENCE NUMBER: 267293
DATE SAMPLED: January 11, 2006
TIME SAMPLED: 9:40 AM
SAMPLER: DV
ANALYST: 725

Parameter	Result ug/kg, as received	Parameter	Result ug/kg, as received
Benzene	< 18.0	1,1-Dichloropropene	< 18.0
Bromobenzene	< 18.0	cis-1,3-Dichloropropene	< 18.0
Bromochloromethane	< 36.0	trans-1,3-Dichloropropene	< 18.0
Bromodichloromethane	< 18.0	Ethylbenzene	< 18.0
Bromoform	< 18.0	Hexachlorobutadiene	< 36.0
Bromomethane	< 90.0	Isopropylbenzene	< 18.0
n-Butylbenzene	< 18.0	p-Isopropyltoluene	< 18.0
sec-Butylbenzene	< 18.0	Methylene Chloride	< 90.0
tert-Butylbenzene	< 18.0	MTBE	< 36.0
Carbon Tetrachloride	< 18.0	Naphthalene	< 36.0
Chlorobenzene	< 18.0	n-Propylbenzene	< 18.0
Chloroethane	< 90.0	Styrene	< 18.0
Chloroform	< 18.0	1,1,1,2-Tetrachloroethane	< 36.0
Chloromethane	< 54.0	1,1,2,2-Tetrachloroethane	< 36.0
4-Chlorotoluene	< 18.0	Tetrachloroethene	< 18.0
2-Chlorotoluene	< 18.0	Toluene	< 18.0
Dibromochloromethane	< 18.0	1,2,3-Trichlorobenzene	< 36.0
1,2-Dibromo-3-Chloropropane	< 36.0	1,2,4-Trichlorobenzene	< 36.0
1,2-Dibromoethane	< 36.0	1,1,1-Trichloroethane	< 18.0
Dibromomethane	< 36.0	1,1,2-Trichloroethane	< 18.0
1,2-Dichlorobenzene	< 18.0	Trichloroethene	< 18.0
1,3-Dichlorobenzene	< 18.0	Trichlorofluoromethane	< 36.0
1,4-Dichlorobenzene	< 18.0	1,2,3-Trichloropropane	< 36.0
Dichlorodifluoromethane	< 90.0	1,2,4-Trimethylbenzene	< 18.0
1,1-Dichloroethane	< 18.0	1,3,5-Trimethylbenzene	< 18.0
1,2-Dichloroethane	< 18.0	Vinyl Chloride	< 36.0
1,1-Dichloroethene	< 18.0	Xylenes, Total	< 36.0
cis-1,2-Dichloroethene	< 18.0	Surrogate 1	81.%
trans-1,2-Dichloroethene	< 18.0	Surrogate 2	96.%
1,2-Dichloropropane	< 18.0	Surrogate 3	80.%
1,3-Dichloropropane	< 18.0	UIP's	> 10.
2,2-Dichloropropane	< 18.0	Percent Solids	NA

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Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
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LABORATORY REPORT
SW 8260

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
SITE: SB2-7.0
DATE RECEIVED: January 12, 2006
REPORT DATE: January 30, 2006
ANALYSIS DATE: January 24, 2006

ORDER ID: 42501
REFERENCE NUMBER: 267294
DATE SAMPLED: January 11, 2006
TIME SAMPLED: 11:30 AM
SAMPLER: DV
ANALYST: 725

Parameter	Result ug/kg, as received	Parameter	Result ug/kg, as received
Benzene	< 18.0	1,1-Dichloropropene	< 18.0
Bromobenzene	< 18.0	cis-1,3-Dichloropropene	< 18.0
Bromochloromethane	< 36.0	trans-1,3-Dichloropropene	< 18.0
Bromodichloromethane	< 18.0	Ethylbenzene	< 18.0
Bromoform	< 18.0	Hexachlorobutadiene	< 36.0
Bromomethane	< 90.0	Isopropylbenzene	< 18.0
n-Butylbenzene	< 18.0	p-Isopropyltoluene	< 18.0
sec-Butylbenzene	< 18.0	Methylene Chloride	< 90.0
tert-Butylbenzene	< 18.0	MTBE	< 36.0
Carbon Tetrachloride	< 18.0	Naphthalene	< 36.0
Chlorobenzene	< 18.0	n-Propylbenzene	< 18.0
Chloroethane	< 90.0	Styrene	< 18.0
Chloroform	< 18.0	1,1,1,2-Tetrachloroethane	< 36.0
Chloromethane	< 54.0	1,1,2,2-Tetrachloroethane	< 36.0
2-Chlorotoluene	< 18.0	Tetrachloroethene	< 18.0
4-Chlorotoluene	< 18.0	Toluene	< 18.0
Dibromochloromethane	< 18.0	1,2,3-Trichlorobenzene	< 36.0
1,2-Dibromo-3-Chloropropane	< 36.0	1,2,4-Trichlorobenzene	< 36.0
1,2-Dibromoethane	< 36.0	1,1,1-Trichloroethane	< 18.0
Dibromomethane	< 36.0	1,1,2-Trichloroethane	< 18.0
1,2-Dichlorobenzene	< 18.0	Trichloroethene	< 18.0
1,3-Dichlorobenzene	< 18.0	Trichlorofluoromethane	< 36.0
1,4-Dichlorobenzene	< 18.0	1,2,3-Trichloropropane	< 36.0
Dichlorodifluoromethane	< 90.0	1,2,4-Trimethylbenzene	< 18.0
1,1-Dichloroethane	< 18.0	1,3,5-Trimethylbenzene	< 18.0
1,2-Dichloroethane	< 18.0	Vinyl Chloride	< 36.0
1,1-Dichloroethene	< 18.0	Xylenes, Total	< 36.0
cis-1,2-Dichloroethene	< 18.0	Surrogate 1	82.%
trans-1,2-Dichloroethene	< 18.0	Surrogate 2	95.%
1,2-Dichloropropane	< 18.0	Surrogate 3	80.%
1,3-Dichloropropane	< 18.0	UIP's	0.
2,2-Dichloropropane	< 18.0	Percent Solids	NA

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Laboratory Services

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

LABORATORY REPORT
SW 8260

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
SITE: Trip Blank
DATE RECEIVED: January 12, 2006
REPORT DATE: January 30, 2006
ANALYSIS DATE: January 24, 2006

ORDER ID: 42501
REFERENCE NUMBER: 267295
DATE SAMPLED: January 11, 2006
TIME SAMPLED: 8:00 AM
SAMPLER: DV
ANALYST: 725

Parameter	Result ug/L	Parameter	Result ug/L
Benzene	< 1.0	1,1-Dichloropropene	< 1.0
Bromobenzene	< 1.0	cis-1,3-Dichloropropene	< 1.0
Bromochloromethane	< 2.0	trans-1,3-Dichloropropene	< 1.0
Bromodichloromethane	< 1.0	Ethylbenzene	< 1.0
Bromoform	< 1.0	Hexachlorobutadiene	< 2.0
Bromomethane	< 5.0	Isopropylbenzene	< 1.0
n-Butylbenzene	< 1.0	p-Isopropyltoluene	< 1.0
sec-Butylbenzene	< 1.0	Methylene Chloride	< 5.0
tert-Butylbenzene	< 1.0	MTBE	< 2.0
Carbon Tetrachloride	< 1.0	Naphthalene	< 2.0
Chlorobenzene	< 1.0	n-Propylbenzene	< 1.0
Chloroethane	< 5.0	Styrene	< 1.0
Chloroform	< 1.0	1,1,1,2-Tetrachloroethane	< 2.0
Chloromethane	< 3.0	1,1,2,2-Tetrachloroethane	< 2.0
2-Chlorotoluene	< 1.0	Tetrachloroethene	< 1.0
4-Chlorotoluene	< 1.0	Toluene	< 1.0
Dibromochloromethane	< 1.0	1,2,3-Trichlorobenzene	< 2.0
1,2-Dibromo-3-Chloropropane	< 2.0	1,2,4-Trichlorobenzene	< 2.0
1,2-Dibromoethane	< 2.0	1,1,1-Trichloroethane	< 1.0
Dibromomethane	< 2.0	1,1,2-Trichloroethane	< 1.0
1,2-Dichlorobenzene	< 1.0	Trichloroethene	< 1.0
1,3-Dichlorobenzene	< 1.0	Trichlorofluoromethane	< 2.0
1,4-Dichlorobenzene	< 1.0	1,2,3-Trichloropropane	< 2.0
Dichlorodifluoromethane	< 5.0	1,2,4-Trimethylbenzene	< 1.0
1,1-Dichloroethane	< 1.0	1,3,5-Trimethylbenzene	< 1.0
1,2-Dichloroethane	< 1.0	Vinyl Chloride	< 2.0
1,1-Dichloroethene	< 1.0	Xylenes, Total	< 2.0
cis-1,2-Dichloroethene	< 1.0	Surrogate 1	83.%
trans-1,2-Dichloroethene	< 1.0	Surrogate 2	95.%
1,2-Dichloropropane	< 1.0	Surrogate 3	81.%
1,3-Dichloropropane	< 1.0	UIP's	0.
2,2-Dichloropropane	< 1.0		

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Laboratory Services

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

LABORATORY REPORT
SW 8260

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
SITE: Sump
DATE RECEIVED: January 12, 2006
REPORT DATE: January 30, 2006
ANALYSIS DATE: January 24, 2006

ORDER ID: 42501
REFERENCE NUMBER: 267296
DATE SAMPLED: January 11, 2006
TIME SAMPLED: 1:15 PM
SAMPLER: DV
ANALYST: 725

Parameter	Result ug/L	Parameter	Result ug/L
Benzene	< 1.0	1,1-Dichloropropene	< 1.0
Bromobenzene	< 1.0	cis-1,3-Dichloropropene	< 1.0
Bromochloromethane	< 2.0	trans-1,3-Dichloropropene	< 1.0
Bromodichloromethane	< 1.0	Ethylbenzene	< 1.0
Bromoform	< 1.0	Hexachlorobutadiene	< 2.0
Bromomethane	< 5.0	Isopropylbenzene	< 1.0
n-Butylbenzene	< 1.0	p-Isopropyltoluene	< 1.0
sec-Butylbenzene	< 1.0	Methylene Chloride	< 5.0
tert-Butylbenzene	< 1.0	MTBE	< 2.0
Carbon Tetrachloride	< 1.0	Naphthalene	< 2.0
Chlorobenzene	< 1.0	n-Propylbenzene	< 1.0
Chloroethane	< 5.0	Styrene	< 1.0
Chloroform	< 1.0	1,1,1,2-Tetrachloroethane	< 2.0
Chloromethane	< 3.0	1,1,2,2-Tetrachloroethane	< 2.0
2-Chlorotoluene	< 1.0	Tetrachloroethene	< 1.0
4-Chlorotoluene	< 1.0	Toluene	< 1.0
Dibromochloromethane	< 1.0	1,2,3-Trichlorobenzene	< 2.0
1,2-Dibromo-3-Chloropropane	< 2.0	1,2,4-Trichlorobenzene	< 2.0
1,2-Dibromoethane	< 2.0	1,1,1-Trichloroethane	< 1.0
Dibromomethane	< 2.0	1,1,2-Trichloroethane	< 1.0
1,2-Dichlorobenzene	< 1.0	Trichloroethene	< 1.0
1,3-Dichlorobenzene	< 1.0	Trichlorofluoromethane	< 2.0
1,4-Dichlorobenzene	< 1.0	1,2,3-Trichloropropane	< 2.0
Dichlorodifluoromethane	< 5.0	1,2,4-Trimethylbenzene	< 1.0
1,1-Dichloroethane	< 1.0	1,3,5-Trimethylbenzene	< 1.0
1,2-Dichloroethane	< 1.0	Vinyl Chloride	< 2.0
1,1-Dichloroethene	< 1.0	Xylenes, Total	< 2.0
cis-1,2-Dichloroethene	< 1.0	Surrogate 1	84.%
trans-1,2-Dichloroethene	< 1.0	Surrogate 2	94.%
1,2-Dichloropropane	< 1.0	Surrogate 3	83.%
1,3-Dichloropropane	< 1.0	UIP's	0.
2,2-Dichloropropane	< 1.0		

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ENDYNE, INC

Laboratory Services

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

LABORATORY REPORT

Stone Environmental, Inc.
535 Stone Cutters Way
Montpelier, VT 05602
Attn: Dan Voisin

PROJECT: Rutland Town Hall/05-1691-R
ORDER ID: 42613
RECEIVE DATE: January 19, 2006
REPORT DATE: February 7, 2006

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

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
REPORT DATE: February 10, 2006

ORDER ID: 42501
DATE RECEIVED: January 12, 2006
SAMPLER: DV
ANALYST: 207

Ref. Number: 267292 Site: SB1-6.0 Date Sampled: January 11, 2006 Time: 9:30 AM

Parameter	Result	Unit	Method	Analysis Date
TPH 8015 DRO	639.*	mg/Kg	SW 8015B	2/3/06

ENDYNE, INC

Laboratory Services

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

LABORATORY REPORT

CLIENT: Stone Environmental, Inc.
PROJECT: Rutland Town Hall/05-1691-R
REPORT DATE: February 7, 2006

ORDER ID: 42613
DATE RECEIVED: January 19, 2006
SAMPLER: DV
ANALYST: 207

Ref. Number: 267533 Site: SB1-10.0 Date Sampled: January 11, 2006 Time: NI

Parameter	Result	Unit	Method	Analysis Date
TPH 8015 DRO	46.6	mg/Kg	SW 8015B	2/3/06

Ref. Number: 267534 Site: SB2-7.0 Date Sampled: January 11, 2006 Time: NI

Parameter	Result	Unit	Method	Analysis Date
TPH 8015 DRO	< 5.0	mg/Kg	SW 8015B	2/3/06

42613

CHAIN OF CUSTODY RECORD

STONE ENVIRONMENTAL INC

SEI Study # 05169L-R

Project Name/Client Study # Rutland Town Hall Site Investigation

Study Director Don Voisin

Sampling Personnel same

SAMPLE INFORMATION

Sample Identification	Date Collected	Type *	Cont.**	Number of Containers	Analysis Requested: 8015				Ship To:
SB1 -10.0	1/11/06	2	2	1	X				
SB2 -7.0	↓	2	2	1	X				

Relinquished By: (Signature)	Date/Time 1/11/06	Received By: (Signature) John Sull	Date/Time 1/19/06 12:50
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

Special Instructions: * Type of Sample (1) water (2) soil
** Container (1) bag (2) bottle (3) shelby tube (4) other:_____

Condition of samples when received by lab:

☐ ambient air ☐ ice/ice substitute ☐ frozen

Please remit a completed, signed copy to:

Temp = 8.6°C

Stone Environmental, Inc.
58 East State Street
Montpelier, Vermont 05602

white copy: original yellow copy: laboratory pink copy: SEI

Page ___ of ___

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ENDYNE, INC

Laboratory Services

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

LABORATORY REPORT

Stone Environmental, Inc.
535 Stone Cutters Way
Montpelier, VT 05602
Attn: Dan Voisin

PROJECT: LUHS 001128-R
ORDER ID: 42615
RECEIVE DATE: January 19, 2006
REPORT DATE: February 7, 2006

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

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT
EPA 524.2

CLIENT: Stone Environmental, Inc.
PROJECT: LUHS 001128-R
SITE: Trip Blank
DATE RECEIVED: January 19, 2006
REPORT DATE: February 7, 2006
ANALYSIS DATE: January 30, 2006

ORDER ID: 42615
REFERENCE NUMBER: 267536
DATE SAMPLED: January 18, 2006
TIME SAMPLED: 11:00 AM
SAMPLER: DV/VD
ANALYST: 725

Parameter	Result ug/L
Benzene	< 0.5
Bromobenzene	< 0.5
Bromomethane	< 0.5
Bromochloromethane	< 0.5
n-Butylbenzene	< 0.5
sec-Butylbenzene	< 0.5
tert-Butylbenzene	< 0.5
Carbon tetrachloride	< 0.5
Chlorobenzene	< 0.5
Chloroethane	< 0.5
Chloromethane	< 1.0
2-Chlorotoluene	< 0.5
4-Chlorotoluene	< 0.5
Dibromomethane	< 1.0
Dichloromethane	< 1.0
Dichlorodifluoromethane	< 0.5
1,2-Dichlorobenzene	< 0.5
1,3-Dichlorobenzene	< 0.5
1,4-Dichlorobenzene	< 0.5
1,2-Dichloroethane	< 0.5
1,1-Dichloroethane	< 0.5
1,1-Dichloroethene	< 0.5
cis-1,2-Dichloroethene	< 0.5
trans-1,2-Dichloroethene	< 0.5
1,2-Dichloropropane	< 0.5
1,3-Dichloropropane	< 0.5
2,2-Dichloropropane	< 1.0
1,1-Dichloropropene	< 0.5
cis-1,3-Dichloropropene	< 0.5
trans-1,3-Dichloropropene	< 0.5
Ethylbenzene	< 0.5

Parameter	Result ug/L
Hexachlorobutadiene	< 0.5
Isopropylbenzene	< 0.5
4-Isopropyltoluene	< 0.5
Naphthalene	< 1.0
MTBE	< 1.0
n-Propylbenzene	< 0.5
Styrene	< 0.5
1,1,1,2-Tetrachloroethane	< 0.5
1,1,2,2-Tetrachloroethane	< 1.0
Tetrachloroethene	< 0.5
Toluene	< 0.5
1,2,3-Trichlorobenzene	< 0.5
1,2,4-Trichlorobenzene	< 0.5
1,1,1-Trichloroethane	< 0.5
1,1,2-Trichloroethane	< 0.5
Trichloroethene	< 0.5
Trichlorofluoromethane	< 1.0
1,2,3-Trichloropropane	< 0.5
1,2,4-Trimethylbenzene	< 0.5
1,3,5-Trimethylbenzene	< 0.5
Vinyl Chloride	< 0.5
Xylenes, Total	< 1.0
Bromodichloromethane	< 0.5
Chloroform	< 0.5
Dibromochloromethane	< 0.5
Bromoform	< 0.5
Total Trihalomethanes	< 0.5
Surrogate 1	94.%
Surrogate 2	85.%
UIP's	0.

CHAIN OF CUSTODY RECORD

STONE ENVIRONMENTAL INC

Rutland Town Hall Site Investigation SEI # 051691-R

Sampling Personnel: Daniel Varsin 42501

SAMPLE INFORMATION

Sample Identification (Sample #)	Date Collected	Time Collected	Type *	Cont.**	Number of Containers	8260	8015 DRO						Weight of soil
SB1-6.0	1/11/06	0930	2	2	1	X	X						12.37
SB1-10.0	↓	0940	2	2	1	X	X						11.11
SB2-7.0	↓	1130	2	2	1	X	X						10.92
Trip Blank	1/11/06	0800	1	2	2	X							
Sump	1/11/06	1315	1	2	2	X							

Ship To:

dros cancelled due to addtition of 5 meoh to samples as per DV 1/17/06 mlf

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
[signature]	1/11/06	S. Brakes	1/12/05 15:50
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

Special Instructions: * Type of Sample (1) water (2) soil
** Container (1) bag (2) bottle (3) shelby tube (4) other: _____

Condition of samples when received by lab:

☐ ambient air ☐ ice/ice substitute ☐ dry ice

Please remit a completed, signed copy to:

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CHAIN OF CUSTODY RECORD

STONE ENVIRONMENTAL INC

SEI Study # 05169L-R

Project Name/Client Study # Rutland Town Hall Site Investigation

Study Director Dan Vosin

Sampling Personnel same

SAMPLE INFORMATION

Sample Identification	Date Collected	Type *	Cont.**	Number of Containers	Analysis Requested: 8015				
SB1 -10.0	1/11/06	2	2	1	X				
SB2 -7.0	↓	2	2	1	X				

Ship To:

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
	1/17/06		
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

Special Instructions: * Type of Sample (1) water (2) soil
** Container (1) bag (2) bottle (3) shelby tube (4) other:_____

Condition of samples when received by lab:

☐ ambient air ☐ ice/ice substitute ☐ frozen

Please remit a completed, signed copy to:

Stone Environmental, Inc.
58 East State Street
Montpelier, Vermont 05602

white copy: original yellow copy: laboratory pink copy: SEI

Page ___ of ___

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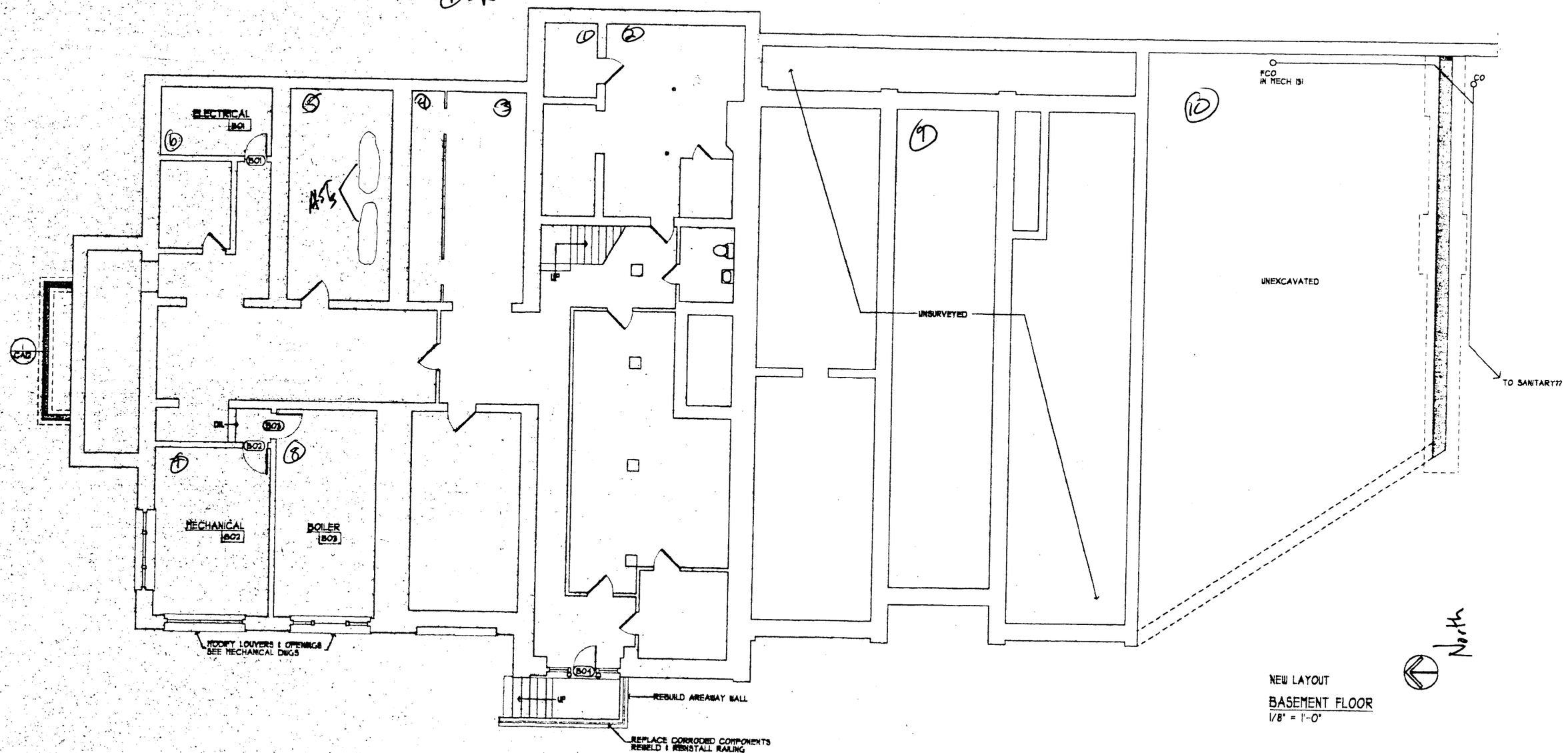
ATTACHMENT 4: TOWN HALL BASEMENT FLOOR PLAN

Rutland Town Hall

Basement Floor Plan

(1) = Room Number



NEW LAYOUT

BASEMENT FLOOR

1/8" = 1'-0"