

Department of Buildings & General Services Office of the Commissioner

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PECEN.

May 10, 2011

Chuck Schwer Vermont Department of Environmental Conservation 103 South Main Street, West Office Building Waterbury, VT 05671-0404

Dear Chuck,

Enclosed is the Phase II Environmental Assessment for the former Duxbury Farm property. I am sending it to you on behalf of BGS General Counsel, Jeff Lively. As you may know we are in the process of selling the former Duxbury Farm property.

Would you please review the Environmental Assessment and send your comments to Jeff Lively, <a href="jeff.lively@state.vt.us">jeff.lively@state.vt.us</a> and cc me, Leslie Baker, <a href="jeslie.baker@state.vt.us">jeff.lively@state.vt.us</a> and cc me, Leslie Baker, <a href="jeslie.baker@state.vt.us">jeslie.baker@state.vt.us</a> and cc me, Leslie Baker,

I apologize as we are under a short timeline to sell the property; if you could review as soon as possible it would be extremely helpful to us and we would greatly appreciate your help.

Sincerely,

Leslie E. Baker



## DUXBURY STATE FARM PHASE II ENVIRONMENTAL SITE ASSESSMENT

**CLOVERDALE LANE, DUXBURY, VT** 

Stone Project ID 092224-R 04/12/11

### Prepared for:

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### Prepared by:

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### 1. INTRODUCTION

Stone Environmental, Inc. (Stone) completed a Phase II Environmental Site Assessment (ESA) for the former Duxbury State Farm, located on Cloverdale Lane off VT Route 100 in Duxbury, Vermont (the Site or Property) (Figure 1, Appendix A). The Phase II ESA was commissioned by Vermont Buildings and General Services, the current property owner. Work was completed in general accordance with the work plan and cost estimate prepared by Stone, dated February 1, 2011.

The purpose of the Phase II ESA was to further evaluate recognized environmental conditions (RECs) identified by Stone during a Phase I ESA in 2010. Specifically, these RECs included:

- 1. Containers, including a 275 gallon fuel oil above ground storage tank (AST), and light fixtures within Site buildings that may contain hazardous materials.
- 2. Past Site activities related to the operation of commercial agriculture operation, specifically:
  - a. Maintenance of farm machinery within the Potato Barn and other unidentified Site areas.
  - b. Storage of fuels and other maintenance fluids within the equipment storage barn, Potato Barn and tractor shed.
  - c. Potential past storage and refilling of pesticides, with potential unreported releases.
- 3. The reported presence of asbestos containing material buried in the field behind the present caw barn.

### 1.1. Site Description and Background

The former Duxbury State Farm property was, until fire destroyed the main dairy barn in 1992, in agricultural use for dairy and vegetable farming. The Site is the proposed future location of a lumber yard. The Site is comprised of a 136 acre parcel located on Cloverdale Lane in Duxbury. Approximately 23 acres of the Property are located in the Town of Moretown on the eastern side of Crossett Brook, west of Cobb Hill Road. There is no direct access to the Moretown portion of the Site from Cobb Hill Road.

The Site is located southeast of the intersection of Route 100 and Route 2 in Duxbury, Vermont, Washington County. The Site is a north-south running irregular shaped parcel bordered on its western boundary by the Crossett Brook Middle School and a sand and gravel pit operated by the Town of Duxbury Public Works and to the north by a private residence. The remaining abutting properties are undeveloped woodlands. Four (4) utility easements transect the Property.

There are seven structures presently at the Site:

■ Structure 1: Caretaker's Residence – Approximately 2,000 square foot gambrel roofed house with two finished stories. There are five bedrooms, two baths, a kitchen, dining and living room. There is a full, unfinished basement and attic. Structure 1 is currently heated with propane, but was formerly heated most recently with a wood furnace and before that an oil-fired furnace. The oil-fired furnace fed loops of water or steam to heat both the Potato Barn and former large cow barn. This system was abandoned in 1971. A 200 square foot concrete pad is located immediately south of the caretaker's residence. Beneath this slab is a vault that is accessed though a 2-foot, square hatch within the slab. At the time of the Site walkover, the hatch was unmovable, however a piece of plywood in the southeast corner of the vault was found to cover a



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large hole within the vault. Within this vault is a 3,000 gallon galvanized steel tank and void space. A fill pipe was observed within the slab directly over the tank's northern edge. No vent pipe was observed accompanying the fill pipe. From within the basement of the caretaker's residence, the northern face of the 3,000 gallon tank was visible through the southern basement wall. A 6-inch diameter clean-out hatch was noted at the bottom of the tank's northern wall. Adjacent to the tank inside the basement is a tank that is approximately 50 gallons. The use of this tank was presumed to be a pressure tank associated with the former heating system. Follow-up of Raphael Lowe, former farm manager and lessee, confirmed that this tank was associated with the former heating system.

- Structure 2: Scale House Approximately 800 square foot building located immediately north of the Caretaker's residence. According to Raphael Lowe, this structure served as a scale house with a shallow false floor housing the scales. At the time of the Site walkover, the scales were not present and piles of dirt were seen within the building.
- Structure 3: Equipment Storage Barn Approximately 6,000 square foot building with corrugated metal roof and plank siding. At the time of the Site walkover, two 5-gallon buckets of petroleum fluids and several unlabeled containers were found within this building, including two 55-gallon plastic drums.
- Structure 4: Potato Barn Two-story hut with drive-in access on the first floor and walk-in access through the basement level. The first floor contained two bays separated by a wall with a large barn door. The basement level was only visible from windows and from an out of service staircase, but was comprised of several smaller rooms. The basement floor, according to perspective buyer Steven Noyes, is earthen.
- Structure 5: Manure Shed Southwest of the Potato Barn is a three-bay pole barn that has drive through access for tractors and trailers. This structure does not have walls but has a poured concrete foundation and slab.
- Structure 6: Cow Barn West of the tractor shed is a small cow barn measuring approximately 30 by 80 feet. This structure was formerly located in the present location of Route 100 and was moved to its current location circa 1972.
- Structure 7: Cow Shed Located east of the Potato Barn is an 800 square foot, 3-sided pole barn. At the time of the Site walkover, this structure was in serious decay.

The Site is serviced by overhead electric power, propane heat, public water from the Town of Duxbury, and private springs located adjacent to Crossett Brook due east of the Caretaker's residence. At the time of the Site walkover inspection, electrical service was available on a limited basis within the Caretaker's house; no other structures had electrical service.

In December, 2010, Stone performed a Phase I ESA of the Site property in anticipation of the sale of the property. The Phase I ESA revealed the following RECs:

- 4. Containers, including a 275 gallon fuel oil AST, and light fixtures within the Site buildings that may contain hazardous materials.
- 5. Past Site activities related to the operation of commercial agriculture operation, specifically:
  - a. Maintenance of farm machinery within the Potato Barn and other unidentified Site areas.
  - b. Storage of fuels and other maintenance fluids within the equipment storage barn, Potato Barn and tractor shed.
  - c. Potential past storage and refilling with associated unreported releases of pesticides.
  - d. Application of pesticides to surface soils
- 6. Reported asbestos debris buried within the hay field south of the Cow Barn.

Based on these findings, Stone recommended a Phase II ESA (this effort) be conducted to further evaluate the presence of contamination within soil and groundwater for each of these activities. In addition, the presence of asbestos containing material should be confirmed and, if present delineated for purpose of removal and disposal in accordance with Vermont Department of Health regulations.

### 2. METHODS

Field work was performed at the Site on February 16, 17, and 18, 2011. Work was performed in accordance with the proposed scope of services described in the proposal dated February 1, 2011 with the following exceptions:

- 7. Due to the depth of groundwater (~50 feet below ground surface (bgs)) discovered during the completion of one well, the groundwater investigation program was abandoned.
- 8. To assess whether REC 2 resulted in a release of contaminants to the environment, the soil sampling program was expanded to include shallow soil sampling within the Tractor Barn.
- 9. Soil borings within the Potato Barn were advanced to refusal. In most cases, refusal was met prior to the target depth of 8 feet bgs.

Field notes of investigation activities are provided in Appendix B of this report.

### 2.1. Field Investigation – REC 1: Hazardous Waste Containers

During the time of the Phase I ESA several containers were identified that may have contained hazardous materials. Stone proposed to inventory all wastes within the Potato Barn, Carriage House, and Tractor Barn for the purpose of developing costs to dispose of these wastes. Stone performed this inventory within the Potato Barn and Carriage House on February 16, 2011, and within the Tractor Barn on February 17 and 18, 2011. Table 1 below summarizes Stone's findings.

Table 1: Waste Inventory, Former Duxbury State Farm

Quantity	Container Type/Contents	Volume	Location
1	John Deere type 303 transmission and hydraulic system special purpose oil	5 gallons	Potato Barn, Room A
2	Unidentifiable rusted buckets/cans	5 gallons	Potato Barn, Room A
1	Bucket labeled: For grafting and all tree wound work. Filled with creosote from chimney flu	5 gallons	Potato Barn, Room D
3	Sinox PE water soluble Dinitro weed killer	5 gallons	Potato Barn, Room F
1 (empty)	Unlabeled paper drum	Approx. 20 gal	Potato Barn, Room F
1	Barsprout	10-15 gal.	Potato Barn, Room F
4	Paper drum, Halox "a safe dry laundry bleach"	10-15 gal.	Potato Barn, Room F
1	Paper drum, Nuclar dry bleach	10-15 gal.	Potato Barn, Room F
5	Unlabeled paper drums (1 is full of dry powder)	10-15 gal.	Potato Barn, Room F
NA	Broken bags of pellets (fertilizer?) spread over floor	NA	Potato Barn, Room F
1	Paper drum, zinc oxide	0.5 gal.	Potato Barn, Room F
1	Paint can (empty)	1 Quart	Potato Barn, Room F
1	Sutan 6-E selective herbicide for corn. MF: Stauffer chemicals	5 gal. (empty)	Stall 3
1	Sutan 6-E selective herbicide for corn. MF: Stauffer chemicals	5 gal. (empty)	Stall 1
1	Unlabeled 50 gallon drum	50 gal. (empty	Stall 1
1	Oilzun (rest of label illegible)	5 gal. (empty)	Below Stairs
16	8' long fluorescent tubes	NA	Potato Barn upstairs
2	Paint cans (part full)	1 gal.	Carriage House downstairs bathroom
1	Paint can	1 gal.	Carriage House

Quantity	Container Type/Contents	Volume	Location
			basement
1	Dap glazing	1 quart	Carriage House basement
1	. Fuel Oil AST	275 gal	Carriage House basement
5	Unmarked containers. Contents look like congealed vegetable/animal oil	5 gal.	Tractor Barn

The fuel oil AST in the Carriage House basement is in good condition and does not appear to be leaking. According to VBGS personnel, the AST was installed in 2002.

In addition to the waste observed in Table 1, pipes insulated with what is possibly asbestos insulation were noted observed in the basement of the Potato Barn. The potential asbestos insulation ranged in condition from good to heavily deteriorated.

### 2.2. Field Investigation - REC 2: Assess Impact of Past Site Practices

### 2.2.1. Groundwater

To assess whether groundwater has been impacted by Site activities Stone proposed to install six (6) groundwater monitoring wells: three (3) wells located down gradient of the Potato Barn, and three (3) wells located down gradient of the Tractor Barn. One additional well was proposed to be installed upgradient of both structures for the purpose of determining direction of groundwater flow and evaluate any potential upgradient contaminant source. Wells were to be constructed such that the middle of the screen would be the same depth as the water table. The anticipated depth to groundwater was approximately eight (8) to twelve (12) ft bgs.

Upon arrival at the Site on February 17, 2011 Stone began soil boring at the proposed upgradient well location (MW-01) using 3.25 inch outer diameter (OD) casing. Soil cores were retrieved and logged for color, texture, moisture, and other remarks following Stone standard operating procedure (SOP) SEI-10.11.0 Geologic Description of Unconsolidated Deposits. Refusal was reached at 17.7 ft bgs prior to observing saturated soils. MW-01was set with a screened interval of 12.7 to 17.7 ft bgs and did not yield water when development was attempted.

Following installation of MW-01, Stone began soil boring at one of the wells down gradient from the Tractor Barn (MW-02). Soil cores were retrieved and logged in the same manner as described above. The soil boring at this location extended to 50 ft bgs; saturated soils were not observed until approximately 48.9 ft bgs. A monitoring well was set following Stone SOP SEI-6.4.5 Installation, Development and Decommissioning of Monitoring Wells and Observation Wells. Upon discovery of the deeper-than-anticipated water table, Stone field staff contacted Stone's project manager; the field team was advised to abandon installation of monitoring wells and to collect soil samples from inside the Tractor Barn. This change to the proposed work scope was documented in an email from Daniel Voisin of Stone to Jeff Lively of VBGS on February 22, 2011.

### 2.2.2. Potato Barn Soil Sampling

To assess whether small spills of fluids from vehicle maintenance activities have impacted the soil floor, Stone had proposed to hand auger four borings to a depth of approximately 8 ft bgs or until the water table was encountered (whichever was shallower), continuously screening soils for volatile organic compounds (VOCs) using a handheld photoionization detector (PID). Quonset Hut soil sampling was carried out on February 16, 2011. To screen soils, clean zip top bags were partly filled with soil from a discrete depth, the bag was shaken, and the PID was poked through the side of the zip top bag to measure the headspace. However, only one location (SB-01) was successfully advanced to 8 ft bgs. No VOCs were detected with the PID at PAH-01; therefore no VOC samples were collected. A second location (PAH-02) reached approximately 2.3 to 2.5 ft bgs at three offset locations before being refused on a buried concrete slab. No VOCs were detected with the PID at PAH-02; therefore no VOC samples were collected.

Two other proposed soil boring locations, denoted as PAH-03 and PAH-04 on Figure 3, were abandoned after attempting to drill through concrete slabs at each location with a hammer drill. The slab was found to be underlying approximately six inches of soil. Surface soil samples were collected and analyzed for polycyclic aromatic hydrocarbons (PAHs). One field duplicate (PAH-03-FD) was collected.

Samples for analysis were transported under chain of custody to AMRO Environmental Laboratories for their respective analyses: SVOCs by EPA Method 8270; and Priority Pollutant Metals by 7760/6610. Upon researching the chemicals found within the basement of the Potato Barn (Section 2.1), Stone requested that that laboratory perform pesticide analysis on the samples collected from this area via EPA Method 8081.

### 2.2.3. Tractor Barn Soil Sampling

Six (6) locations were selected inside the Tractor Barn to complete four (4) foot deep soil borings using a hand auger. Two (2) PAH and Pesticide samples were collected per location: one shallow sample at approximately . 0.5 ft bgs, and a deeper sample at approximately 2.0 ft bgs. Samples for PAH, Priority Pollutant Metals, and pesticide analyses were transported under chain of custody to AMRO for analysis via EPA Methods 8270 with Selective Ion Monitoring (SIM), 3051/6010/7471 and 8081, respectively.

Soils were screened approximately every half foot for VOCs using a handheld PID using the same methodology described in Section 2.2.2. If VOCs were detected with the PID greater than 1.0 parts per million by volume approximately 10 g of fresh soil (not a portion of the field screening sample) was placed in a preweighed vial prepared with 15 ml of purge and trap grade methanol. Two samples were selected for VOC analysis based on PID screening. SB-02 had a PID response of 1.0 parts per million volume (ppm v/v) at 1.5 feet bgs; a field duplicate was also collected from this location. A second VOC sample was collected at TB-SB-5 at a depth of 0.5 ft bgs., where the PID read 0.1 ppm v/v. One trip blank accompanied the VOC samples to the laboratory to ensure the sample contamination did not occur during shipment. Samples for VOC analysis were transported under chain of custody to AMRO for analysis by EPA Method 8260.

### 2.3. Field Investigation - REC 3: Assessment of Buried Wastes

To evaluate the presence and volume of asbestos-laden waste reportedly buried within the pasture south of the present cow barn, Stone completed 28 test pit excavations using a small, track mounted excavator. Depths of test pits ranged between four (4) and five (5) feet. Vermont Buildings and General Services staff cleared a large area of the field of snow on February 17, 2011. All test pits were filled back in with the excavated soils prior to starting a new pit. Test pit locations were based upon oral accounts of the former farm manager,

Raphael Lowe. Mr. Lowe indicated to Stone that the buried wastes were located south of the current cow barn, adjacent to the power transmission lines. Test pits were excavated on February 18, 2011.

### 3. RESULTS

### 3.1. Geology/Hydrology

Based on the soil boring logs generated during the Phase II ESA, overburden materials within the investigated portion of the Site generally consist of fine to medium sands. A coarse gravel to cobble layer was encountered at 15 feet bgs. A clayer unit was encountered at 15 feet bgs in MW-1, located presumably upgradient of the Site buildings. Water perched upon and within this clayer unit gave the appearance of a saturated zone, however, unsaturated soils were found at deeper depths. Based on local topography, Stone presumes that groundwater at the Site flows to the east, northeast.

Bedrock was not encountered to a maximum investigation depth of 50 feet bgs.

Soils within the Quonset Hut were fine and medium sands with pebbles and cobbles. Organic matter consistent with vegetable matter (e.g., stems and seeds) was found in surficial soil. In three (3) of the four (4) locations (sample locations SB-02/PAH-02, PAH-03, and PAH-04), a shallow concrete slab was encountered at 2.5 feet bgs.

Soils within the Tractor Barn were comprised of silty fine sand with some gravel. The target depth of four (4) feet was achieved at each location.

### 3.2. Contaminant Distribution

PID readings were all non-detect for soil collected during the collection of soil borings within the Tractor Barn and Quonset Hut. PID readings of soil collected during the installation of monitoring wells MW-1 and MW-2 were non-detect with the exception of 0.3 ft bgs in MW-01, which had a detection of 2.5 ppm v/v.

Fixed-based analytical results for VOCs, PAHs, pesticides and Priority Pollutant Metals are included in Tables 2 through 5, below. For clarity on Figures 3 and 4, PAH concentrations of individual compounds are represented as toxicity equivalence to benzo(a)pyrene (TEC as B(a)P). Laboratory report forms are included in Appendix C; TEC as B(a)P calculation worksheets are also provided in Appendix C.

Soils within the basement of the Quonset Hut contained concentrations of several banned pesticides including dichlorodiphenyltrichloroethane (DDT), Methoxychlor and associated breakdown products; however, the concentrations were less than USEPA's Regional Screening Levels (RSL) for residential soils (direct contact). Several PAHs were detected at concentrations greater than the RSL for residential soils. One sample, PAH-03, contained a TEC as B(a)P of 0.762 milligrams per Kilogram (mg/Kg), which is greater than the RSL for industrial soils for benzo(a)pyrene. Soils did not contain visible or field screening evidence of contamination.

Tractor Barn soils contained largely de minimis concentrations of several PAHs and select metals. Exceedances in Tractor Barn soils were limited to arsenic and benzo(a)pyrene (1 sample). Arsenic was found in every sample analyzed at concentrations ranging from 9.08 to 14.4 mg/Kg. No VOCs or pesticides were detected in any soil sample collected from the Tractor Barn.

Table 2: Polycyclic Aromatic Hydrocarbons in Site soils.

Analyte	wake)	RSI (molecular TE-SE-172-0 9 TIB-SB-03-0 6	TB-SB-03-0.6	TB-SB-04-0.6	TB-SB-04-0.6 TB-SB-1-0.5	TB-SB-1-0.5- FD₹	SB-1-0.5 FD*** TB-SB-5-0.5 TB-SB-6-0.7	TB-SB-6-0.7		PAH-02	PAH-03	PAH-03-FD	PAH-04
	310	D 6800.0	0.01 U	0.01 U	0.04 U	0.01 U	0.0099	0.0097 ∪	0,014	0.021	0.037	0.043	0.1
Acenaphthene	3400	N 6600'0	0.01 U		0.01	0.01 U	D 6600.0	U 7600.0	0.012 U	0.01 U	0.032	0.036	0.03
Acenaphthylene		U 6600.0	0.01		0.01 U	0.01 U	O.0099 U	0.0097 U	0.012 U	0.01 U	0.049	0.069	0.036
Anthracene	17000	U 6600.0	0.01 U	0.01 U	0.01 U	0.01 U	0.019	U 2600.0	0.014	0.015	0.12	0.14	0.13
Benz(a)anthracene	0.15	U 6600.0	0.01 U	0.011	0.01 U	0.01 U	0.059	0.0097 U	0.096	90.0	0.47	0633	0.11
Benzo(a)pyrene	0.015	U 6600.0	0.01 U	0.013	0.01 U	0.01 U	° 0.052	0.0097 U	0.085	0.071	02.17	0354	0.49
Benzo(b)fluoranthene	0.15	U 6600.0	0.01 U	0.024	0.01 U	0.011	0.092	0.0097 U	0.1	0.092	410	96,0	0.34
Benzo(a.h.i)perviene		U 6600.0	0.01 U	0.012	0.01	0.01 U	0.038	0.0097 U	0.089	0.077	0.49	0.56	4.0
Benzo(k)fluoranthene	1.5	D 6600.0	0.01 U	0.01 U	0.01 U	0.01 U	0.03	0.0097 U	0.025	0.032	0.29	0.33	0.084
Chrysene	5	U 6600.0	0.01 U	0.017	0.01 U	0.01 U	0.068	0,0097 U	0,16	0,094	0.75	0.72	0.34
Dibenz(a.h)anthracene	0.015	D 6600.0	0.01	0.01 U	0.01	0.01 U	U 6600.0	U 7600.0	0.015	0.013	10.10 mark	0:12	0.054
Fluoranthene	2300	U 6600.0	0.01 U	0,027	0.04	0.011	0.13	0.012	0.12	0,12	4	1.3	0.35
Fluorene	2300	U 6600.0	0.01 U		0.04 U	0.01 U	U 6600.0	U 7600.0	0.012 U	0.01 U	0.046	0.055	0.12
Indeno(1,2,3-cd)pyrene	0.15	U 6600.0	0.01 U	١	0.01 U	0.01 U	0.035	0.0097 U	0.043	0.049	0.49 PM	10.49 H	20.26
Naphthalene	3.9	U 6600.0	0.01 U	0.01 U	0.01 U	0.01 U	U 6600.0	U 7600.0	0.012 U	0.012	0.029	0.032	0.051
Phenanthrene		U 660000		0,011	0.01 U	0.01 U	0.093	D.0097	0.068	990'0	0.68	0.65	0.38
Pyrene	1700	U 660000	0.01 U	0.024	0.013	0.015	0.11	0.014	0.15	0.12	1.2	1.2	0.96
TEC <sup>5</sup> as Benzo(a)pyrene	0.015	0.0114	0.0116	0.0227	0.0116	0.0122	0.0769	0.0112	0,124	0,106	0,762	0,861	0.616
													to the same

Tractor Barn; 2-elis with bold formatting indicate a detection of the analyte at a concentration greater than the laboratory reporting limit, 3-cells with a grey highlight indicate a concentration greater than the Regional Soil Screening Level; NS: There is no relevant standard for this compound; TEC: Toxicity equivalence concentration.

# Table 3: Priority Pollutant Metais in Sile solls.

Analyte	RSSL (mg/kg)	TB-SB-02-0.9	TB-SB-03-0.6	1.5	TB-SB-04-0.6	TB-SB-1-0.5	1.0		TB-SB-1-0.5 ೧.≪FD&®	7.	TB-SB-5-0.5	0.5	TB-SB-6.7	9	777
Antimony	31	5.82	5.01	n	4.58	, (	4.75	n	18.1		4.54	⊃	4	4.86	ᅴ
Arsenic	0.39	- Sept 475 and -		4.00		e pylotic	9.22	1.30	- Set4,4 fee 5	1997, 199	2	A	10.6 " and 10.6"	80	3
Beryllium	160	0.311 U	0.313	n	0.286	J 0.	0.297	n	0.318	Ы	0.284	<b>□</b>	0.3	0.304	ᅴ
Cadmium	02	0.623 U	0.626	n	0.572	) 0	0,593	n	0.636	D	0.567	)	0.6	0.607	ᅴ
Chromium	280	33.6	8.52		8.41		17.7		11.2		14		-	16.4	
Copper	3100	20.8	24.9		16.9		21.5		21.1		19.1		7	18.1	
Lead	400	7.97	8.51		6.64	_	6.79		7.26		7.22	2	8	44	
Nickel	1600	27.3	19.5		15.2		21.8		21.9		2		2	2	
Selenium	390	14.9 U	15 - U	- n	13.7	ſ	14.2	_	15.3	_	13.6	<u>ح</u>	1	14.6	=
Silver	390	1.74 U	1,75	ח	1.6		1.66	n	1.78	=	1.59	<b>-</b>		1.7 U	ᅴ
Thallium	5.1	6.23 U	6.26	n	5.72	, ,	5.93	n	6.36	Э	5.67	7	9	6.07	ᅴ
Zinc	23000	33	33.9		25.7		31.9		33.2		32.2	2	ຄ	34.5	Į
Mercury	6.7	0.0501 U	0.0507	n	0.05	0	0.049	n	0.0488	_	0.0484	J .	0.0	0.0497	$\supset$
										١		١			ı

'TB: Tractor Barn; <sup>2</sup>Cells with bold formatting Indicate a detection of the analyte at a concentration greater than the laboratory reporting limit; <sup>3</sup>Cells with a grey highlight indicate a concentration greater than the Regional Soil Screening Levet; "NS: There is no relevant standard for this compound

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Table 4: Pesticides in Site solls.

Table 1. I constant in one source													
Analyte	RSSL(mg/kg) TB-SB-02-0.9 TB-SB-03-0.6 TB-S	TB-SB-02-0.9	TB-SB-03-0.6	SB-04-0.6	TB-SB-1-0.5	TB-SB-1-0.5-	TB-SB-5-0.5	TB-SB-6-0.7	PAH-01	PAH-02	PAH-03	PAH-03-FD	PAH-04
4,4'-DDD	2	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.037 U	0.037	0.032 U	0.032 U	0.017 U
4,4'-DDE	1.4	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.170	0.067	0.069	0.066	0.017 U
4,4'-DDT	1.7	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.420	0.280	0.28	0.31	0.22
Aldrin	0.029	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.016 U	0.016 U	0.0083 U
alpha-BHC	0.077	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.016 U	0.016 U	0.015
alpha-Chlordane		0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	D.00081 U	0.019	0.017 U	0.027	0.028	0.0083 U
beta-BHC	0.27	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.000B1 U	0.180 U	0.017 U	0.016 U	0.016 U	0.0083 U
delta-BHC		0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.000B U	0.00081 U	0.180 U	0.017 U	0.016 U	0.016 U	0.0083 U
Dieldrin	0.03	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.037 U	0.033 U	0.032 U	0.032 U	U 710.0
Endosulfan I		0.00081 U	U 18000.0	U 80000	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.016 U	D.016 U	0.0083 U
Endosulfan II		0.0016 U	0.0016 U	0.0016 U	0.0016 U	0,0016 U	0.0016 U	0.0016 U	0.037 U	0.033 U	0.032 U	0.032 U	U 710.0
Endosulfan sulfate		0.0016 U	U. 9100.0	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.037 U	0.033 U	0.032 U	0.032 U	0.017 U
Endrin	18	0.0016 U	U 9100.0	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.037 U	0.033 U	0.032 U	0.032 U	0.017 U
Endrin aldehyde		0.0016 U	U 9100.0	0.0016 U	0.0016 U	0,0016 U	0.0016 U	0.0016 U	0.037 U	0.033 U	0.032 U	0.032 U	U 710.0
Endrin ketone		0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.037 U	0.033 U	0.032 U	0.032 U	0.017 U
gamma-BHC	0,52	0,00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.016 U	0.19	0.0083 U
gamma-Chlordane		0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.02	0.018	0.0083 U
Heptachlor	0.11	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.016 U	0.016 U	0.0083 U
Heptachlor epoxide	0.053	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.00081 U	0.0008 U	0.00081 U	0.180 U	0.017 U	0.016 U	0.016 U	0.0083 U
Methoxychlor	310	0.0081 U	0.0081 U	0.008 U	0.0081 U	0.0081 U	0.008 U	0.0081 U	0.570	0,340	0.2	0.16	0.13
Technical Chlordane		0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.580 U	0.520 U	0.5 U	0.5 U	0.26 U
Toxaphene	0.44	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.580 U	0.520 U	0.5 U	0.5 U	0.26 U
TB: Tractor Bam; <sup>2</sup> Cells with bold formatting indicate a detection of the analyte at a concentration	formatting indicate a d	etection of the an	alyte at a concentra		greater than the laboratory								

118: Tractor Bern, 'Cels with boold formatting indicate a detection of the analyte at a concentration greater than the laboratory reporting limit, 'Cels with a grey highlight indicate a concentration greater than the Regional Soil Screening Level, 'NS: There is no relevant standard for this compound.

Table 5: Volatile Organic Compounds in Site soils.

Analyte	RSL (mg/kg)	TB-SB-02-1.5	TB-SB-02-1.5-FD	TB-SB-5-0.5	Trip Blank-01
1,1,1,2-Tetrachloroethane	2	0.016 U	0.015 U	0.012 U	0.025 U
1,1,1-Trichloroethane	9000	0.016 U	0.015 U	0.012 U	0.025 U
1,1,2,2-Tetrachloroethane	0.59	0.016 U	0.015 U	0.012 U	0.025 U
1,1,2-Trichloroethane	1.1	0.016 U	0.015 U	0.012 U	0.025 U
1,1-Dichloroethane	3.4	0.016 U	0.015 U	0.012 U	0.025 U
1,1-Dichloroethene	250	0.016 U	0.015 U	0.012 U	0.025 U
1,1-Dichloropropene		0.016 U	0.015 U	0.012 U	0.025 U
1,2,3-Trichlorobenzene		0.016 U	0.015 U	0.012 U	0.025 U
1,2,3-Trichloropropane	0.091	0.016 U	0.015 U	0.012 U	0.02 <u>5</u> U
1,2,4-Trichlorobenzene	87	0.016 U	0.015 U	0.012 U	0.025 U
1,2,4-Trimethylbenzene	67	0.016 U	0.015 U	0.012 U	0.02 <u>5</u> U
1,2-Dibromo-3-chloropropane	0.0056	0.08_U	0.076 U	0.0 <u>59</u> U	<u>0.12 U</u>
1,2-Dibromoethane	0.034	0.016 U	0.015 U	0.012 U	0.025 U
1,2-Dichlorobenzene	2000	0.016U	0.015 U	0.012 U	0.025 U
1,2-Dichloroethane	0.45	0.016 U	0.015 U	0.012 U	0.025 U
1,2-Dichloropropane	0.93	<u>0.016</u> U	0.015U	0.012 U	0.025 U
1,3,5-Trimethylbenzene	47	0.016 U	0.01 <u>5</u> U	0.012 U	0.025U
1,3-Dichlorobenzene		0.016 U_	<u>0.</u> 015 U	0.012 U	0. <u>025</u> U
1,3-Dichloropropane	1600	0.016 U	0.0 <u>15</u> U	0.012 U	0.02 <u>5</u> U
1,4-Dichlorobenzene	2.6	0.016 U	0.015 <u>U</u>	0.012 U	0.025 U
2,2-Dichloropropane		0.016 U	0.015 <u>U</u>	0.012 U	0.025 U
2-Butanone	28000	0.16 U	0.15 U	0,12 <u>U</u>	0,25 <b>U</b>
2-Chlorotoluene	1600	0.016 U	0.015 U	0.012 U	0.025 U
2-Hexanone		0.16 U	0.15 U	0.12 U	0.25U
4-Chlorotoluene	5500	0.016 U	0.015 U	0.012 U	0.025 U
4-Isopropyltoluene		0.016 U	<u>0.015</u> U	0.012 U	0.025 U
4-Methyl-2-pentanone	5300	0.16U	0.15 U	0.12 U	0.25U
Acetone	61000	0.16 U	0.15 U	0.12 U	0.25 U
Benzene	1.1	0.016_ U	<u>0.015</u> <u>U</u>	0.0 <u>1</u> 2 U	0.025 U
Bromobenzene	94	0.016 U	0.015 U	0.012 U	0.025 U
Bromochloromethane		0.016U	0.015 U	0.012 U	0.025 U
Bromodichloromethane	10	0.016 <u>U</u>	0.015 U	0.012 U	0.025 U
Bromoform	61	0.032 U	0.03 U	0.023 U	0.05 U
Bromomethane	7.9	0.032 U	0.03 U	0.023 U	0.05 U
Carbon disulfide	670	0.032 U	0.03 U	0.023 U	0.05 U
Carbon tetrachloride	0.25	0.016 U	0.015 U	0.012 U	0.025 U
Chlorobenzene	310	0.016 U	0.015 U	0.012 U	0.025 U
Chloroethane	15000	0.032 U	0.03 U	0.023 U	0.05 U
Chloroform	0.3	0.016 U	0.015 U	0.012 U	0.025 U
Chloromethane	1.7	0.032 U	0.03 U	0.023 U	0.05 U



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cis-1,2-Dichloroethene	780	0.016	U	0.015	U_	0.012	U	0.025	U_
cis-1,3-Dichloropropene		0.016	U	0.015	U	0.012	U	0.025	U
Dibromochloromethane	5.8	0.016	U	0.015	U	0.012	U	0.025	U_
Dibromomethane	780	0.016	U	0.015	U	0.012	U	0.025	U_
Dichlorodifluoromethane	190	0.032	U	0.03	U	0.023	U	0.05	U_
Diethyl ether	16000	0.16	U	0.15	U	0.12	U	0.25	U
Ethylbenzene	5.7	0.016	U	0.015	U	0.012	U	0.025	U_
Hexachlorobutadiene	6.2	0.032	<u>U</u>	0.03	U	0.023	U	0.05	<u>U_</u>
Isopropylbenzene	2200	0.016	U	0.015	U	0.012	U	0.025	U_
m,p-Xylene	600	0.016	U	0.015	U	0.012	U	0.025	U_
Methyl tert-butyl ether	39	0.016	U	0.015	U	0.012	U	0.025	_U
Methylene chloride	11	0.032	U	0.03	U	0.023	U	0.05	_U
Naphthalene_	3.9	0.032	U	0.03	U	0.023	U	0.05	<u>U</u>
n-Butylbenzene		0.016	U	0.015	U_	0.012	U_	0.025	U_
n-Propylbenzene		0.016	U	0.015	U	0.012	U	0.025	U_
o-Xylene	5300	0.016	U	0.015	U	0.012	<u>U</u>	0.025	<u>U</u>
sec-Butylbenzene		0.016	U	0.015	U	0.012	U	0.025	<u>U_</u>
Styrene	6500	0.016	U	0.015	U_	<u>0</u> .012	U	0.025	U
tert-Butylbenzene		0.016	U	0.015	U	0.012	U	0.025	U_
Tetrachloroethene	0.57	0.016	U	0.015	U	0.012	U	0.025	U_
Tetrahydrofuran		0.16	U	0.15	U	0.12	U	0.25	U
Toluene	5000	0.016	U	0.015	U	0.012	U	0.025	U_
trans-1,2-Dichloroethene	110	0.016	U	0.015	U	0.012	U	0.025	U
trans-1,3-Dichloropropene		0.016	U	0.015	U	0.012	U	0.025	U
Trichloroethene	2.8	0.016	U	0.015	U	0.012	U	0.025	U_
Trichlorofluoromethane	800	0.032	U	0.03	U	0.023	U	0.05	U
Vinyl chloride	0.06	0.016	U	0.015	U	0.012	U	0.025	U_

<sup>1</sup>TB: Tractor Barn; <sup>2</sup>Cells with bold formatting indicate a detection of the analyte at a concentration greater than the laboratory reporting limit; <sup>3</sup>Cells with a grey highlight indicate a concentration greater than the Regional Soil Screening Level; <sup>4</sup>NS: There is no relevant standard for this compound

### 3.3. Asbestos Assessment

No building material waste was observed in any of the 28 test pits excavated for this Phase II ESA. Locations of test pit excavations are provided in Figure 2.

### 4. CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) is a set of working hypotheses which describe the problem at a site. As with any hypothesis the CSM is not conclusive and may require testing to arrive at desired levels of certainty. A CSM includes discussions of how chemicals were released at a site, their transport pathways and fate mechanisms as well as exposure routes for both ecological and human receptors. The CSM is based on all available information related to the Site. In general terms a CSM provides the context for the Site Investigation, to ensure that investigation phases are developed to efficiently provide the information needed for making sound site management decisions.

Stone has developed the following conceptual Site model (CSM) based on the available contaminant distribution data and historical use information for the Site.

Polycyclic aromatic hydrocarbons are a group of semi-volatile organic compounds that are found within fossil fuels and are derived from the combustion of fuel (either biomass or fossil fuels). As pollutants, they are of concern because some compounds have been identified as carcinogenic, mutagenic, and teratogenic. In the environment, PAHs are found to be widespread in developed areas as a result of atmospheric deposition of combustion particulates and decaying organic wastes. At the Site, PAHs present a risk of potential exposure within surface soils in the basement of the Quonset Hut based on RSL exceedance, with the highest concentrations occurring within the northern portion of that space—directly below the area formerly used for farm machinery maintenance. The source of these contaminants is likely past maintenance activities within the Ouonset Hut.

Low concentrations of pesticides detected within the Quonset Hut soils confirm that past practices at the Site included the use of these now banned substances. Dispersal of pesticides in this area may have resulted from foot traffic from the storage room located in the south end of the building or from accumulation from decaying vegetables that would have been sprayed with these chemicals.

Arsenic is a metalloid that has historically been used within the production of pesticides and in wood preservation processes. Arsenic-based pesticides were used extensively to control pests in fruit orchards, vegetable fields, golf courses and turf fields from 1900 through the 1960s. However, it is also a naturally occurring element, particularly in meta-sedimentary rocks and associated unconsolidated sediments and soils. Although the State of Vermont defaults to the residential Regional Soil Screening Levels for contaminants in soil of 0.39 mg/Kg for arsenic, in Vermont, arsenic is routinely found in undisturbed soils at concentrations up to 12 mg/Kg. Based on the concentrations observed at the Site, it is likely that arsenic contamination is the result of natural occurrence.

### 4.1. Sensitive Receptor Evaluation

Based on the current CSM, potential exposure pathways to human and/or ecological receptors are evaluated below.

Indoor Air – For the on-Site buildings, there currently does not appear to be a significant exposure risk to human receptors

Soil – Exposure pathways for humans through impacted soils include dermal absorption (via direct contact), ingestion, and inhalation of dust. Elevated concentrations of PAHs are present in surficial soil within the Quonset Hut and, to a limited extent, within the Tractor Barn. Quonset Hut soils are currently covered by a



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wooden false floor and do not currently present a significant risk to human health or the environment. If future redevelopment includes renovations within the basement of the Potato Barn, engineering controls may be appropriate to eliminate exposure to these soils.

Ground Water – Due to the depth to groundwater at the Site and relatively low concentrations of Site contaminants present within shallow soil, groundwater is not likely to be impacted by Site contaminants. Drinking water at the Site has historically been supplied by a spring located on the eastern side of Crossett Brook. The condition of this water source has not been assessed.

Hazardous Wastes – Hazardous wastes presented within Table 1 present the greatest risk of exposure to future Site users through direct contact.

### 5. CONCLUSIONS AND RECOMMENDATIONS

Given the results of the Phase II ESA and previous of the Site, Stone has drawn the following conclusions:

- Groundwater at the Site was found to be in excess of 50 feet below ground surface. Soils are comprised largely of gravelly sand.
- Prior Site activities have resulted in the occurrence of containers of hazardous materials within Site buildings including small volume automotive fluids, pesticide and fertilizer containers, and potential asbestos containing insulation.
- The existing 275-gallon fuel oil AST in the Caretaker's Residence basement appears to be in good condition.
- VOCs were not detected in Site soil or indoor air using field screening techniques or fixed-based analysis.
- Surficial soil within the Potato Barn, and to a lesser degree within the tractor barn, contains PAHs at concentrations that are greater than the RSL. There was no visual evidence of a release at any sample location. Past use of this building, including the maintenance of farm machinery, heating through combustion, and/or storage of vegetables within the basement has likely resulted in the current Site condition.
- Detections of pesticides in surface soil and the occurrence of remnant pesticide products within the Quonset Hut basement indicates that these chemicals were stored and used at the Site. Previous accounts of the former Farm manager, presented in the Phase I ESA report, indicated that application of pesticides was performed by an outside vendor.
- Shallow and surface soils within the Tractor Barn have been contaminated arsenic to concentrations greater than the relevant RSL. The most likely source of arsenic contamination in surface soil is that from naturally occurring arsenic from meta-sedimentary parent rock found throughout Vermont, however, potential past use of arsenic-based pesticides at the Site may also have resulted in the observed contamination. Typically, if arsenic is present in soils as a result of pesticide use, concentrations would be orders of magnitude higher than those observed at the Site.
- No evidence of buried debris from the cow barn that burned in 1993 was found at the Site. It is possible these wastes were either not within the reported location or were removed following the discovery of asbestos within un-entombed fire debris.

Based on the above conclusions, Stone recommends that VBGS present this report to the Vermont Department of Environmental Conservation for their consideration as required following the discovery of evidence of a release of contaminants to the environment. Engineering controls, such as spot removal of contaminated soils or the installation of a new concrete floor within the Potato Barn, may need to be implemented to prevent contact with contamination by Site workers. The existing wooden false floor may also be suitable to temporarily reduce the chance of contact with basement soils. Hazardous waste containers should be removed from the Property and properly disposed of by a licensed hazardous waste hauler as necessary. Costs to perform hazardous waste removal, transport and disposal are provided in Appendix D.



Past application of pesticide to surface soils may have resulted in elevated concentrations in areas that were previously used to grow vegetables or silage. Sampling and analysis of these areas, once identified, are recommended.

The two groundwater monitoring wells should be abandoned by a licensed Vermont well driller.

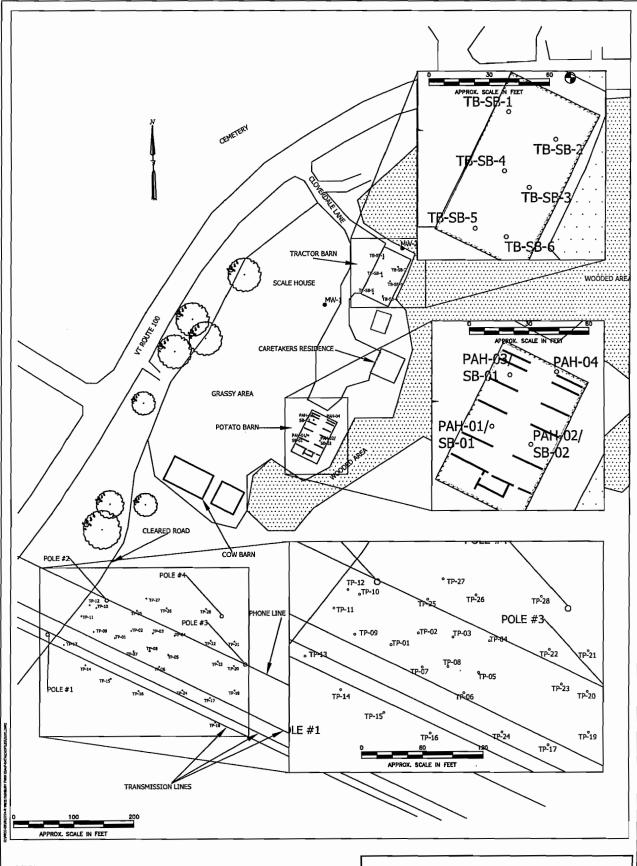
Based on observations by Stone regarding the presence of potential asbestos insulation on pipes within the Potato Barn, an asbestos assessment should be performed of interior Site areas to determine the presence, nature and extent of asbestos containing material in interior space.

### **APPENDICES**

## **APPENDIX A: FIGURES**



Figure 1: Site location map
Duxbury State Farm Phase II ESA, Cloverdale Lane, Duxbury, VT



### LEGEND

PAH-01/ 5B-01 O PAH SAMPLE LOCATION/SOIL BORING LOCATION

TP-15 O TEST PIT

TB-SB-1 O SOIL SAMPLE LOCATION/SOIL BORING LOCATION

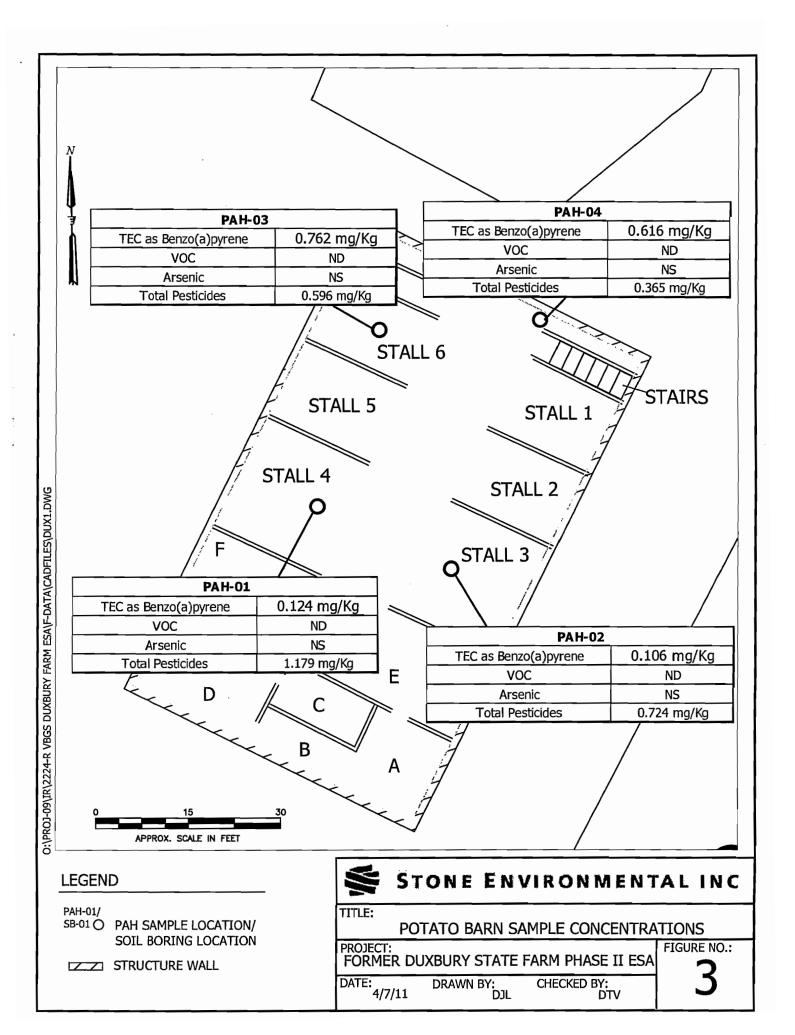
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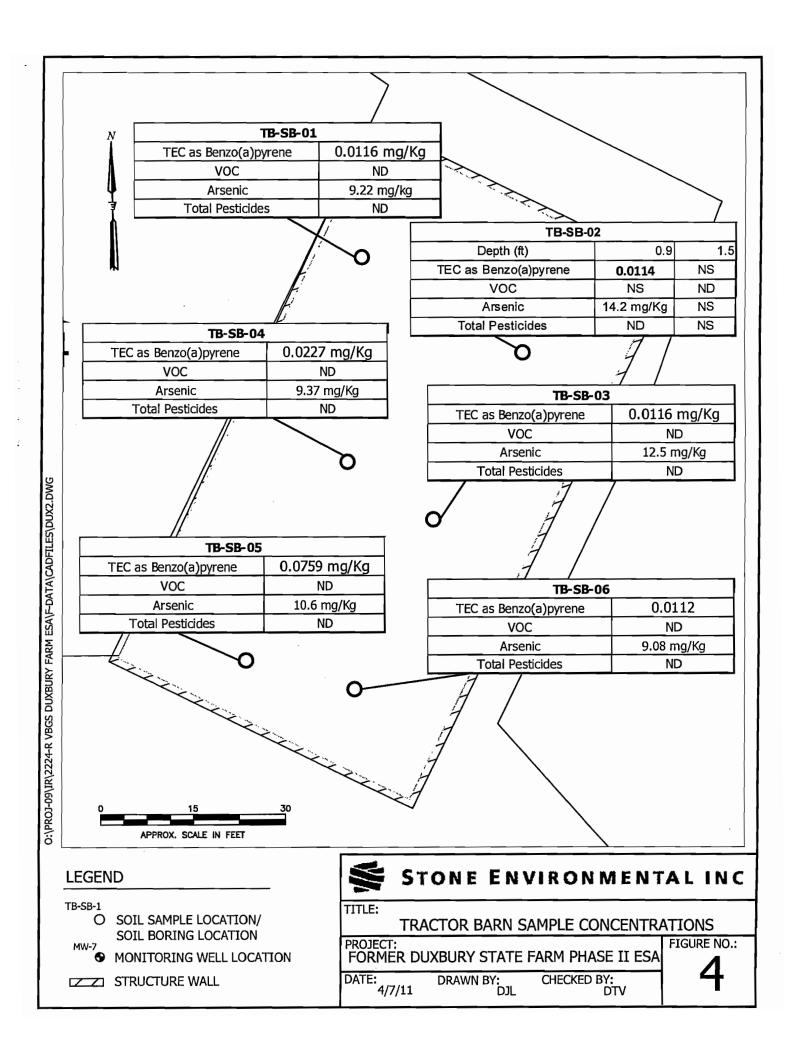
SITE PLAN WITH SAMPLE LOCATIONS

PROJECT: FORMER DUXBURY STATE FARM PHASE II ESA

FIGURE NO.:

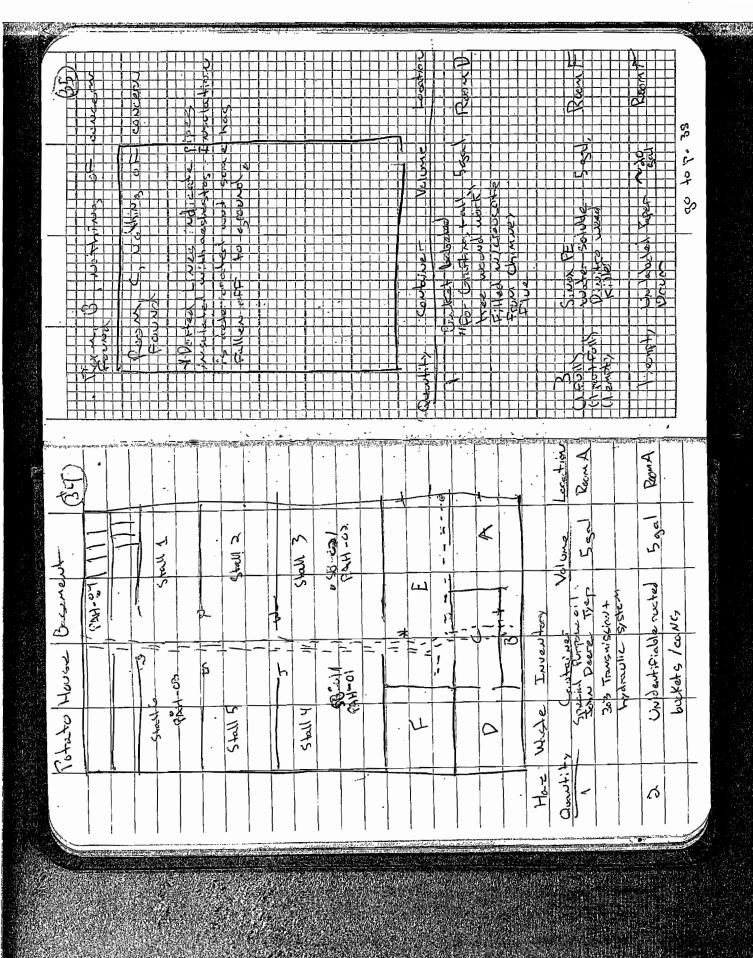
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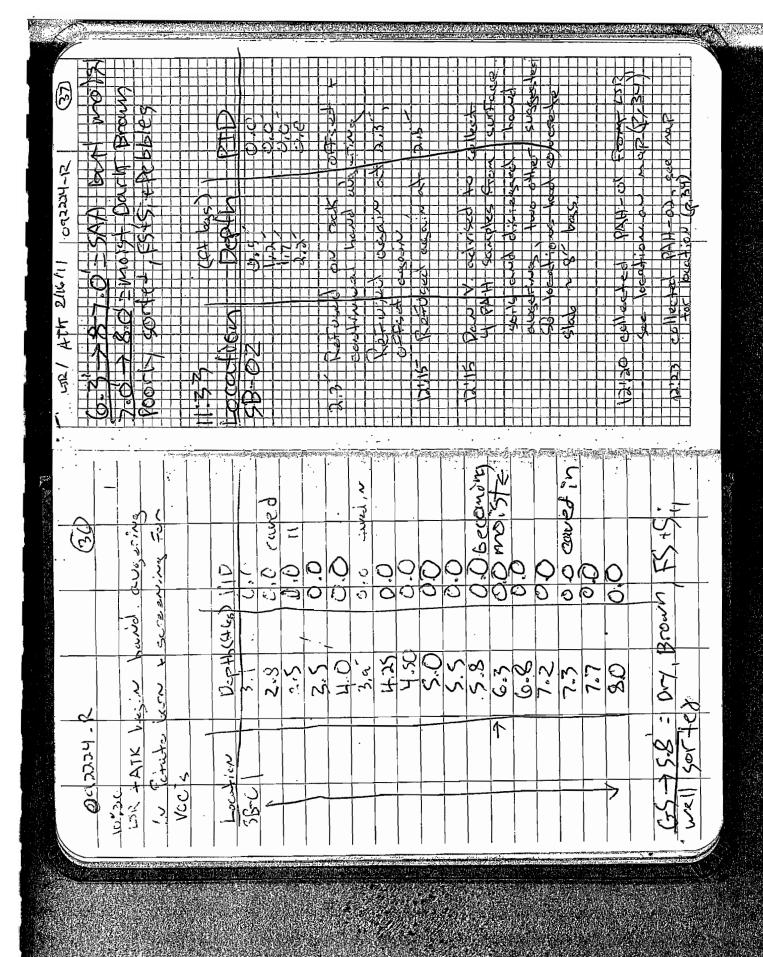




### **APPENDIX B: FIELD NOTES**

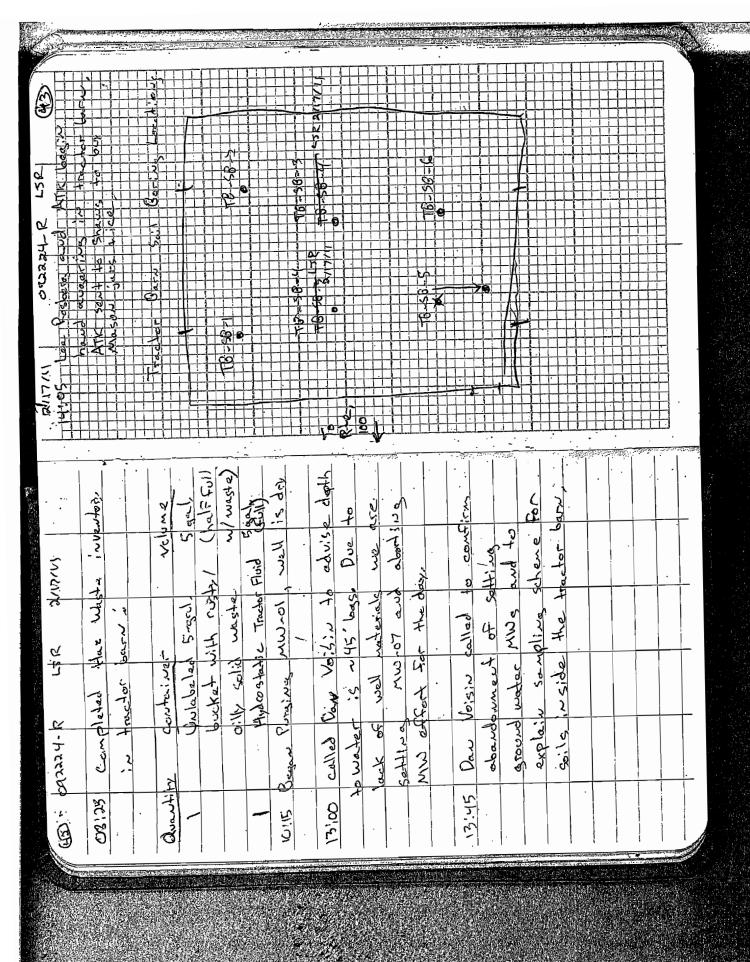
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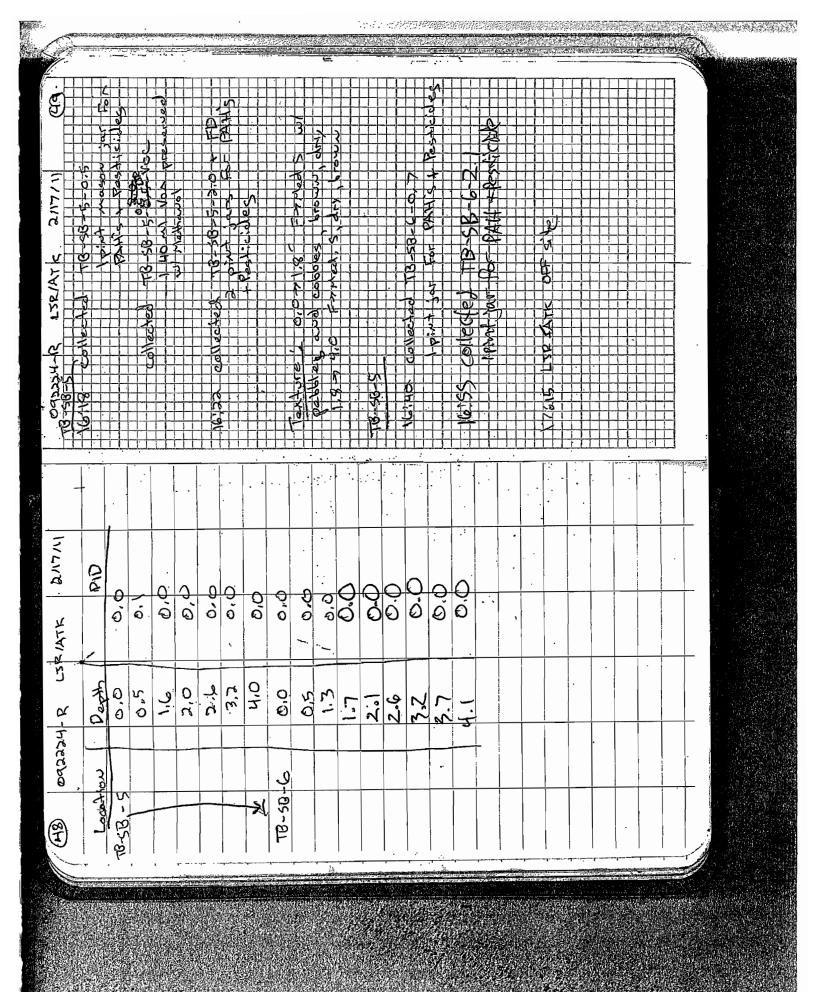


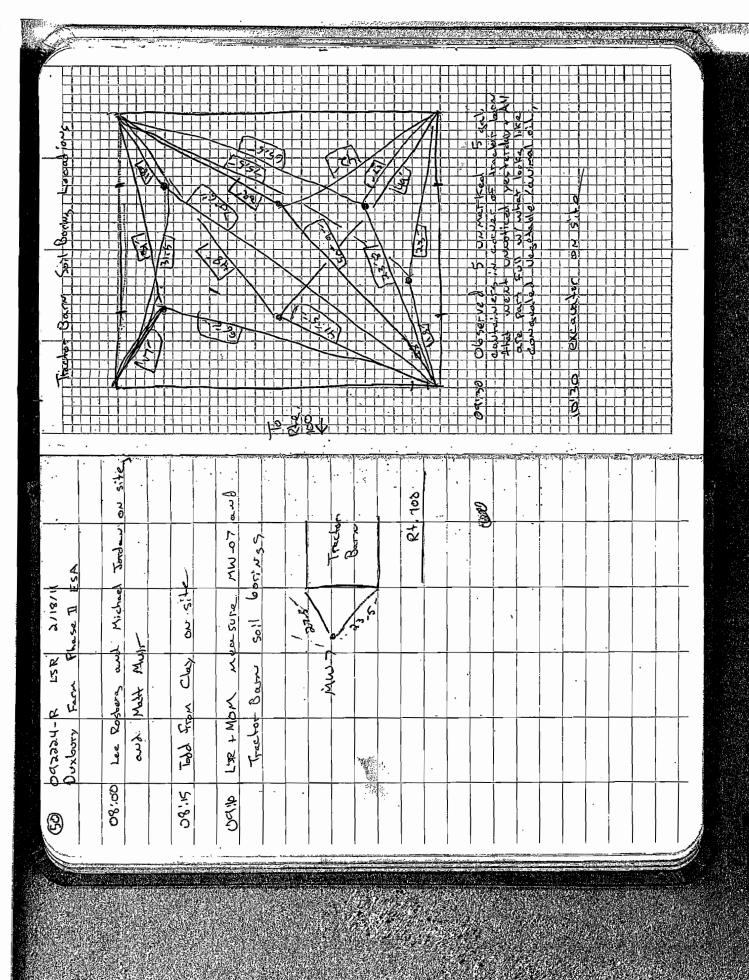
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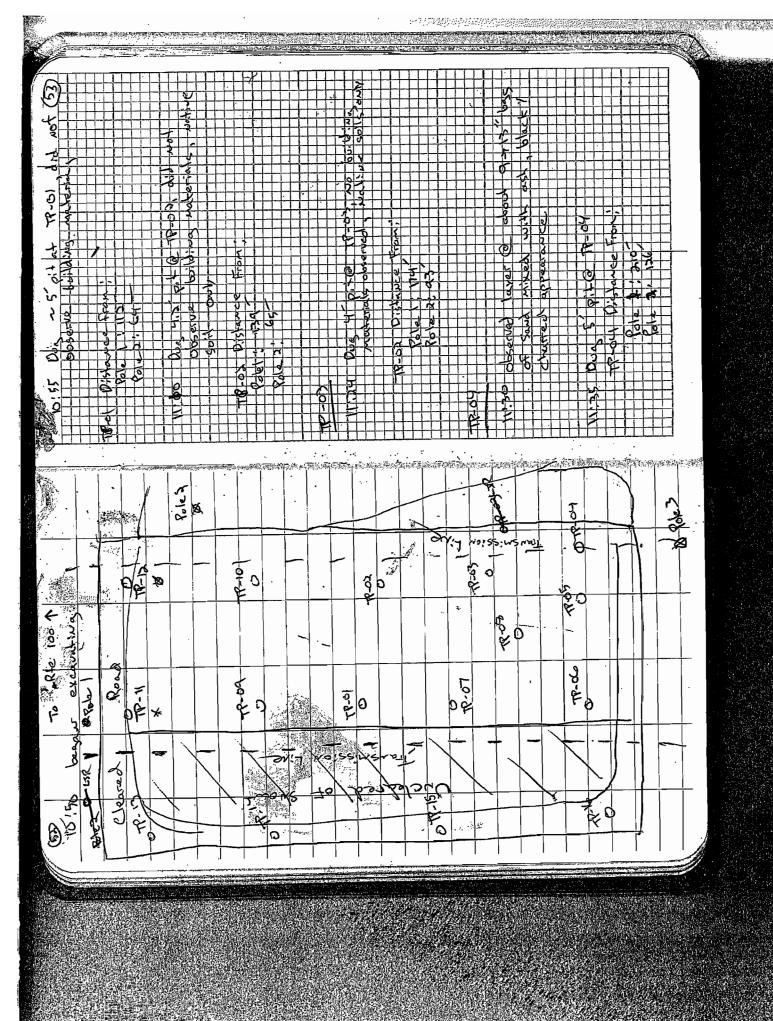
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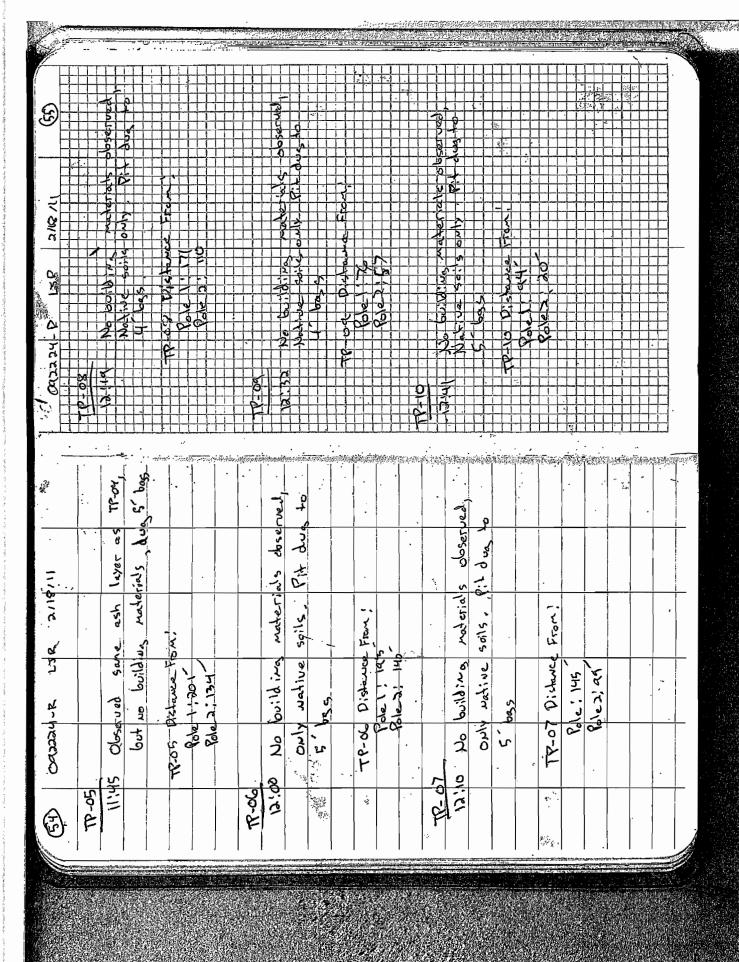


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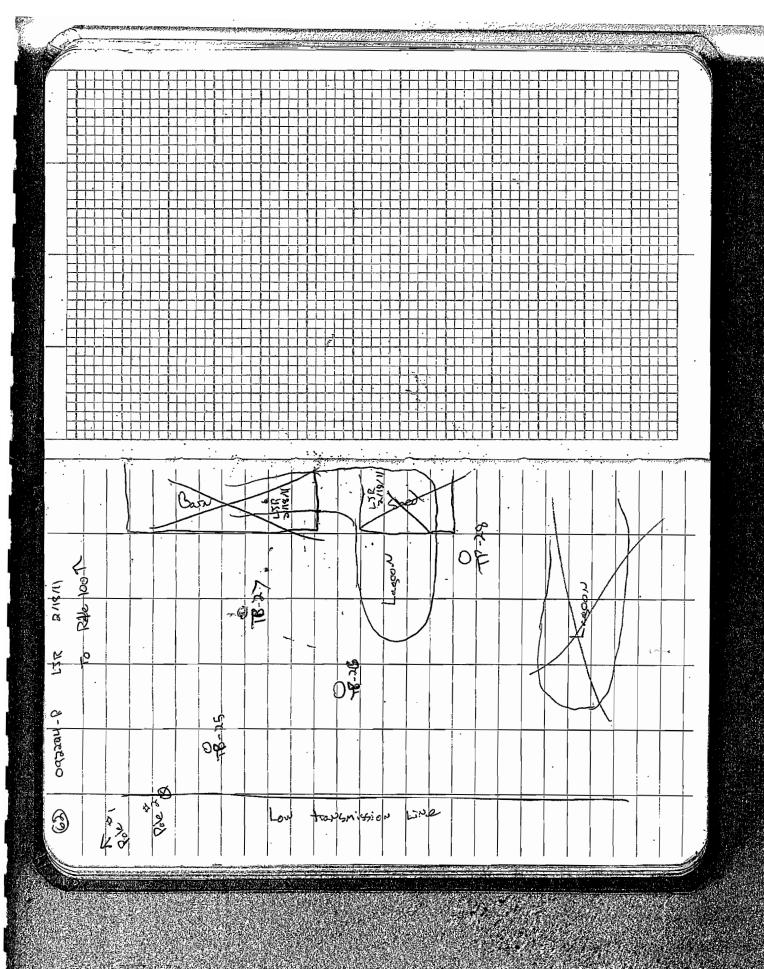




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Distance to: Pare 32 46  Distance to: Pare 40  Distance to: Pare 32 46  Distance to: Pare 32 46  Distance to: Pare 32 46  Distance to: Pare 40  Distance to	doe to! Pole 3= ilm	1000
Distance to Pie 2 described Advise  No building realerings observed Advised Realerings observed Realerings	Bled=4	
Distance to Pole 4 = 45 less with the poly of the poly		9)%
53 No boilding naterial observed, while  Soils ouly, Rit due to 415' bas  Distance to Pale 417' bas used  Makine without materials observed, Maline  Distance to 1 Rie due to 5' bas  Richard to 1 Rie due to 5' bas  Soils ouly, Pit due to 5' bas  Soils ouly, Pit due to 5' bas  Richard to 1 Rie 140  Richard to 1 Rie 140  Richard to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Rie 4 to 1 Rie 140  Richard to 1 Richard to 1 Rie 140  Richard to 1 Richard		1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Pistance to: Pale 4: 45 ' lass  Distance to: Pale 4: 46 ' lass  Distance to: Pale 3: 46 ' lass  Distance to: Pale 4: 40 ' lass  Distance to: Pale 5: 40 ' lass	133 No boilding naterials observed.	- Only Fit alway
Distance to Pole 3 = 70  Native with only, Pit due to 5 less  Distance to Piezerue, Maine  Distance to	s ouly. Pit dug to 4.5' be	2-14- 1-01 PONENT
Distance to Pale 4 = 45  Native with only, Pit due to 5 best with the billions restricted to the second of the bolding restricted by the first object with the billions restricted to the second object with the second object with the second object with the second object with the billions restricted to the second object with the second object w	01,	
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Distance to: Pale 32 46  No building materials observed. Native  Soils only. Pit due to 5 bus  Distance to: Ble 32 1/3*  Cails only. Pit due to 6 bus  Bale 12 1/3*	NAtive wilsouly, Pit dva to 5'6	101. Pole
No building materials observed, Mative	Ć.	0
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No building materials observed. Matige  Soils early. Pit dog to 5 bys  Pisternal to! Ble 3= 113  Pisternal to! Ble 4= 140		
Soils early Rit due to 5 bys Matige		
No building materials obsessed. Native	2.	
Distance to Bless 113 Bless 140 Bless 113	No building makerials observed.	2 2 3 3 4
015 taure to: 8/2 3= 1/3- (6/4 4= 140	1 Pit Jun to 5 bys	
0h = 1h0	401 Ble 3= 113	Cold (Clay) Matt Moric,
		-



# **APPENDIX C: LABOROTORY REPORT**



111 Herrick Street, Merrimack, NH 03054 TEL: (603) 424-2022 • FAX: (603) 429-8496 www.amrolabs.com

March 29, 2011

#### ANALYTICAL TEST RESULTS

Daniel Voisin
Stone Environmental, Inc.
535 Stone Cutters Way
3 rd Floor
Montpelier, VT 05602

TEL: (802) 229-1875 FAX: (802) 229-5417

Subject: 092224-R Duxbury Farm Phase II ESA

Workorder No.: 1103046

Dear Daniel Voisin:

....

AMRO Environmental Laboratories Corp. received 5 samples on 3/24/2011 for the analyses presented in the following report.

The enclosed results are additional analyses requested after the original report was issued. AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of thirty (30) days from this report date. After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of  $\underline{\underline{\mathcal{V}}}$  pages. This letter is an integral part of your data report. If you have any questions regarding this project in the future, please refer to the Order Number above.

Sincerely,

Nancy Stewart Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and

1001.

Hard copy of the State Certification is available upon request.

Date: 28-Feb-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury Farm Phase II ESA

Lab Order:

1102046

**Date Received:** 2/17/2011

Work	Order	Sample	<b>Summary</b>
------	-------	--------	----------------

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102046-01A	PAH-01	2/16/2011	12:20 PM
1102046-02A	PAH-02	2/16/2011	12:23 PM
1102046-03A	PAH-03	2/16/2011	12:25 PM
1102046-04A	PAH-03-FD	2/16/2011	12:25 PM
1102046-05A	PAH-04	2/16/2011	12:30 PM

#### **DATA COMMENT PAGE**

#### **Organic Data Qualifiers**

- ND Indicates compound was analyzed for, but not detected at or above the reporting limit.
- Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
- H Method prescribed holding time exceeded.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- R RPD outside accepted recovery limits
- RL Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
- S Spike Recovery outside accepted recovery limits.
- # See Case Narrative

#### **Micro Data Qualifiers**

TNTC Too numerous to count

#### **Inorganic Data Qualifiers**

ND or U Indicates element was analyzed for, but not detected at or above the reporting	ting limit	he reporting	above the	orab	ato	d:	tecter	not de	but	for.	malvzed	was	element	Indicates	Or II	N
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- J Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
- H Indicates analytical holding time exceedance.
- B Indicates that the analyte is found in the associated blank, as well as in the sample.
- MSA Indicates value determined by the Method of Standard Addition
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- R RPD outside accepted recovery limits
- RL Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
- S Spike Recovery outside accepted recovery limits.
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- \* Duplicate analysis not within control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
- # See Case Narrative

#### Report Comments:

- 1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
- 2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

Date: 28-Feb-11

**CLIENT:** 

Stone Environmental, Inc.

Lab Order:

1102046

Client Sample ID: PAH-01

Collection Date: 2/16/2011 12:20:00 PM

Matrix: SOIL

Project: Lab ID:

092224-R Duxbury Farm Phase II ESA 1102046-01A

Analyses	Result	RL	Qual (	U <b>nits</b>	DF	Date Analyzed
PAH BY EPA 8270C SIM	;	SW8270C				Analyst: NS
Naphthalene	ND	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
2-Methylnaphthalene	14	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Acenaphthylene	ND	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Acenaphthene	ND	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Fluorene	ND	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Phenanthrene	68	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Anthracene	14	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Fluoranthene	120	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Pyrene	150	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Benz(a)anthracene	96	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Chrysene	160	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Benzo(b)fluoranthene	100	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Benzo(k)fluoranthene	25	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Benzo(a)pyrene	85	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Dibenz(a,h)anthracene	15	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Indeno(1,2,3-cd)pyrene	43	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Benzo(g,h,i)perylene	89	12	μ	ıg/Kg-dry	1	2/24/2011 8:17:00 PM
Surr: Nitrobenzene-d5	68.8	15-103	9	%REC	1	2/24/2011 8:17:00 PM
Surr: 2-Fluorobiphenyl	72.5	21.9-109	9	%REC	1	2/24/2011 8:17:00 PM
Surr: 4-Terphenyl-d14	101	42.8-147	9	%REC	1	2/24/2011 8:17:00 PM
PERCENT MOISTURE	1	D2216				Analyst: MG
Percent Moisture	15.3	0	w	vt%	1	2/18/2011

Date: 28-Feb-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: PAH-02

Lab Order:

1102046

Collection Date: 2/16/2011 12:23:00 PM

Project:

092224-R Duxbury Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102046-02A

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM	;	SW8270C			Analyst: NS
Naphthalene	12	10	µg/Kg-dry	1	2/24/2011 8:52:00 PM
2-Methylnaphthalene	21	10	µg/Kg-dry	1	2/24/2011 8:52:00 PM
Acenaphthylene	ND	10	µg/Kg-dry	1	2/24/2011 8:52:00 PM
Acenaphthene	ND	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Fluorene	ND	. 10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Phenanthrene	66	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Anthracene	15	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Fluoranthene	120	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Pyrene	120	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Benz(a)anthracene	60	10	µg/Kg-dry	1	2/24/2011 8:52:00 PM
Chrysene	94	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Benzo(b)fluoranthene	92	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Benzo(k)fluoranthene	32	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Benzo(a)pyrene	71	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Dibenz(a,h)anthracene	13	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Indeno(1,2,3-cd)pyrene	49	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Benzo(g,h,i)perylene	77	10	μg/Kg-dry	1	2/24/2011 8:52:00 PM
Surr: Nitrobenzene-d5	65.5	15-103	%REC	1	2/24/2011 8:52:00 PM
Surr: 2-Fluorobiphenyl	69.5	21.9-109	%REC	1	2/24/2011 8:52:00 PM
Surr: 4-Terphenyl-d14	108	42.8-147	%REC	1	2/24/2011 8:52:00 PM
PERCENT MOISTURE	ı	D2216			Analyst: MG
Percent Moisture	4.9	0	wt%	1	2/18/2011

Date: 28-Feb-11

**CLIENT:** 

Stone Environmental, Inc.

Lab Order:

1102046

Client Sample ID: PAH-03

Collection Date: 2/16/2011 12:25:00 PM

Project:

092224-R Duxbury Farm Phase II ESA

Lab	ID:	

1102046-0	3Α.

Analyses	Result	RL	Qual 1	Units	DF	Date Analyzed
PAH BY EPA 8270C SIM		SW8270C				Analyst: NS
Naphthalene	29	10	ŀ	ug/Kg-dry	1	2/24/2011 9:27:00 PM
2-Methylnaphthalene	37	10	ŀ	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Acenaphthylene	49	10	ŀ	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Acenaphthene	32	10	ŀ	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Fluorene	46	10	ŀ	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Phenanthrene	680	100	ŀ	ug/Kg-dry	10	2/25/2011 1:28:00 PM
Anthracene	120	10	ŀ	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Fluoranthene	1,400	100	ŀ	ug/Kg-dry	10	2/25/2011 1:28:00 PM
Pyrene	1,200	100	ŀ	ug/Kg-dry	10	2/25/2011 1:28:00 PM
Benz(a)anthracene	470	10	1	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Chrysene	750	100	1	ug/Kg-dry	10	2/25/2011 1:28:00 PM
Benzo(b)fluoranthene	1,000	100		ug/Kg-dry	10	2/25/2011 1:28:00 PM
Benzo(k)fluoranthene	290	10	1	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Benzo(a)pyrene	470	10		ug/Kg-dry	1	2/24/2011 9:27:00 PM
Dibenz(a,h)anthracene	100	10		ug/Kg-dry	1	2/24/2011 9:27:00 PM
Indeno(1,2,3-cd)pyrene	410	10	1	ug/Kg-dry	1	2/24/2011 9:27:00 PM
Benzo(g,h,i)perylene	490	10		ug/Kg-dry	1	2/24/2011 9:27:00 PM
Surr: Nitrobenzene-d5	66.9	15-103	9	%REC	1	2/24/2011 9:27:00 PM
Surr: 2-Fluorobiphenyl	69.0	21.9-109	9	%REC	1	2/24/2011 9:27:00 PM
Surr: 4-Terphenyl-d14	100	42.8-147	q	%REC	1	2/24/2011 9:27:00 PM
PERCENT MOISTURE		D2216				Analyst: MG
Percent Moisture	3.3	0	v	vt%	1	2/18/2011

Date: 28-Feb-11

**CLIENT:** 

Stone Environmental, Inc.

1100016

Chefft Sample

Client Sample ID: PAH-03-FD

Lab Order:

1102046

Collection Date: 2/16/2011 12:25:00 PM

Project:

092224-R Duxbury Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102046-04A

Analyses	Result	RL	Qual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM		SW8270C			Analyst: NS
Naphthalene	32	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
2-Methylnaphthalene	43	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Acenaphthylene	69	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Acenaphthene	36	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Fluorene	55	20	μg/Kg-dry	` 1	2/24/2011 10:03:00 PM
Phenanthrene	650	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Anthracene	140	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Fluoranthene	1,300	40	μg/Kg-dry	2	2/25/2011 2:04:00 PM
Pyrene	1,200	40	μg/Kg-dry	2	2/25/2011 2:04:00 PM
Benz(a)anthracene	530	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Chrysene	720	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Benzo(b)fluoranthene	950	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Benzo(k)fluoranthene	330	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Benzo(a)pyrene	540	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Dibenz(a,h)anthracene	120	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Indeno(1,2,3-cd)pyrene	490	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Benzo(g,h,i)perylene	560	20	μg/Kg-dry	1	2/24/2011 10:03:00 PM
Surr: Nitrobenzene-d5	60.0	15-103	%REC	1	2/24/2011 10:03:00 PM
Surr: 2-Fluorobiphenyl	81.6	21.9-109	%REC	1	2/24/2011 10:03:00 PM
Surr: 4-Terphenyl-d14	131	42.8-147	%REC	1	2/24/2011 10:03:00 PM
PERCENT MOISTURE	1	D2216			Analyst: MG
Percent Moisture	3.2	0	wt%	1	2/18/2011

Date: 28-Feb-11

**CLIENT:** 

Stone Environmental, Inc.

1102046

Client Sample ID: PAH-04

Lab Order:

Collection Date: 2/16/2011 12:30:00 PM

Project:

092224-R Duxbury Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102046-05A

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM		SW8270C			Analyst: NS
Naphthalene	51	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
2-Methylnaphthalene	100	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Acenaphthylene	36	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Acenaphthene	30	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Fluorene	120	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Phenanthrene	380	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Anthracene	130	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Fluoranthene	. 350	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Pyrene	960	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Benz(a)anthracene	110	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Chrysene	340	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Benzo(b)fluoranthene	340	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Benzo(k)fluoranthene	84	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Benzo(a)pyrene	490	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Dibenz(a,h)anthracene	54	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Indeno(1,2,3-cd)pyrene	260	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Benzo(g,h,i)perylene	400	21	μg/Kg-dry	1	2/24/2011 10:38:00 PM
Surr: Nitrobenzene-d5	58.2	15-103	%REC	1	2/24/2011 10:38:00 PM
Surr: 2-Fluorobiphenyl	71.6	21.9-109	%REC	1	2/24/2011 10:38:00 PM
Surr: 4-Terphenyl-d14	111	42.8-147	%REC	1	2/24/2011 10:38:00 PM
PERCENT MOISTURE	ı	D2216			Analyst: MG
Percent Moisture	5.3	0	wt%	1	2/18/2011



111 Herrick Street, Merrimack, NH 03054 TEL: (603) 424-2022 • FAX: (603) 429-8496 www.amrolabs.com

March 10, 2011

#### ANALYTICAL TEST RESULTS

Daniel Voisin

Stone Environmental, Inc.

535 Stone Cutters Way

3 rd Floor

Montpelier, VT 05602

TEL: (802) 229-1875

FAX: (802) 229-5417

Subject: 092224-R Duxbury State Farm Phase II ESA

Workorder No.: 1102053

MAR 1 4 2011

Dear Daniel Voisin:

AMRO Environmental Laboratories Corp. received 11 samples on 2/22/2011 for the analyses presented in the following report.

AMRO is accredited in accordance with NELAC and certifies that these test results meet all the requirements of NELAC, where applicable, unless otherwise noted in the case narrative.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

This report consists of a total of  $\underline{M}$  pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and

1001.

Hard copy of the State Certification is available upon request.

Date: 07-Mar-11

CLIENT: Stone Environmental, Inc.

Project: 092224-R Duxbury State Farm Phase II ESA Work Order Sample Summary

**Lab Order:** 1102053 **Date Received:** 2/22/2011

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
1102053-01A	TB-SB-1-0.5	2/17/2011	2:15 PM
1102053-02A	TB-SB-1-0.5-FD	2/17/2011	2:15 PM
1102053-03A	TB-SB-02-0.9	2/17/2011	2:51 PM
1102053-04A	TB-SB-03-0.6	2/17/2011	3:21 PM
1102053-05A	TB-SB-04-0.6	2/17/2011	3:48 PM
1102053-06A	TB-SB-5-0.5	2/17/2011	4:18 PM
1102053-07A	TB-SB-6-0.7	2/17/2011	4:40 PM
1102053-08A	TB-SB-02-1.5-VOC	2/17/2011	3:03 PM
1102053-09A	TB-SB-02-1.5-VOC-FD	2/17/2011	3:03 PM
1102053-10A	TB-SB-5-0.5-VOC	2/17/2011	4:18 PM
1102053-11A	TB-01	2/17/2011	5:00 PM

#### DATA COMMENT PAGE

#### **Organic Data Qualifiers**

	ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.	
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- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
- H Method prescribed holding time exceeded.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- B This flag is used when the analyte is found in the associated blank as well as in the sample.
- R RPD outside accepted recovery limits
- RL Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
- S Spike Recovery outside accepted recovery limits.
- # See Case Narrative

#### Micro Data Qualifiers

TNTC Too numerous to count

#### **Inorganic Data Qualifiers**

ND or U	Indicates element was anal-	vzed for, but not detected	d at or above the reporting limit.

- J Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
- H Indicates analytical holding time exceedance.
- B Indicates that the analyte is found in the associated blank, as well as in the sample.
- MSA Indicates value determined by the Method of Standard Addition
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- R RPD outside accepted recovery limits
- RL Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
- S Spike Recovery outside accepted recovery limits.
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- Duplicate analysis not within control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
- # See Case Narrative

#### Report Comments:

- 1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
- 2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury State Farm Phase II ESA

Lab Order:

1102053

Lab ID:

1102053-01

**Collection Date: 2/17/2011 2:15:00 PM** 

**Collection Time:** 

Client Sample ID: TB-SB-1-0.5

Analyses	Result	RL Qual	Units	DF	Date Analyzed
ICP METALS TOTAL SW-846 - 3051/6010		6W601QB			Analyst: <b>AL</b>
Antimony	ND	4.75	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Arsenic	9.22	5.93	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Beryllium	ND	0.297	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Cadmium	ND	0.593	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Chromium	17.7	1.19	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Copper	21.5	2.97	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Lead	6.79	2.97	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Nickel	21.8	4.75	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Selenium	ND	14.2	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Silver	ND	1.66	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Thallium	ND	5.93	mg/Kg-dry	1	2/24/2011 4:30:08 PM
Zinc	31.9	7.12	mg/Kg-dry	1	2/24/2011 4:30:08 PM
MERCURY, 7471A	S	SW7471A			Analyst: AL
Mercury	ND	0.0490	mg/Kg-dry	1	2/24/2011 12:34:08 PM
PERCENT MOISTURE		2216			Analyst: <b>SK</b>
Percent Moisture	1.8	0	wt%	1	2/25/2011

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury State Farm Phase II ESA

Lab Order:

1102053

Lab ID:

1102053-02

Collection Date: 2/17/2011 2:15:00 PM

**Collection Time:** 

Client Sample ID: TB-SB-1-0.5-FD

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP METALS TOTAL SW-846 - 3051/6010		SW6010B				Analyst: AL
Antimony	18.1	5.09		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Arsenic	14.4	6.36		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Beryllium	ND	0.318		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Cadmium	ND	0.636		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Chromium	11.2	1.27		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Copper	21.1	3.18		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Lead	7.26	3.18		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Nickel	. 21.9	5.09		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Selenium	ND	15.3		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Silver	ND	1.78		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Thallium	ND	6.36		mg/Kg-dry	1	2/24/2011 5:01:06 PM
Zinc	33.2	7.63		mg/Kg-dry	1	2/24/2011 5:01:06 PM
MERCURY, 7471A		SW7471A				Analyst: AL
Mercury	ND	0.0488		mg/Kg-dry	1	2/24/2011 12:53:49 PM
PERCENT MOISTURE		D2216				Analyst: SK
Percent Moisture	2.0	0		wt%	1	2/25/2011

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury State Farm Phase II ESA

Lab Order:

1102053

Lab ID:

1102053-03

Collection Date: 2/17/2011 2:51:00 PM

**Collection Time:** 

Client Sample ID: TB-SB-02-0.9

Cheff Sample ID: 1D-3D-02-0.9		Mati	ix. SOIL		
Analyses	Result	RL	Qual Units	DF	Date Analyzed
ICP METALS TOTAL SW-846 - 3051/6010	s	SW6010B			Analyst: AL
Antimony	5.82	4.98	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Arsenic	14.2	6.23	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Beryllium	ND	0.311	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Cadmium	ND	0.623	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Chromium	33.6	1.25	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Copper	20.8	3.11	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Lead	7.97	3.11	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Nickel	27.3	4.98	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Selenium	ND	14.9	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Silver	ND	1.74	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Thallium	ND	6.23	mg/Kg-dry	1	2/24/2011 5:23:56 PM
Zinc	33.0	7.47	mg/Kg-dry	1	2/24/2011 5:23:56 PM
MERCURY, 7471A	5	SW7471A			Analyst: AL
Mercury	ND	0.0501	mg/Kg-dry	1	2/24/2011 12:57:07 PM
PERCENT MOISTURE		02216			Analyst: SK
Percent Moisture	2.1	0	wt%	1	2/25/2011

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury State Farm Phase II ESA

Lab Order:

1102053

Lab ID:

1102053-04

Collection Date: 2/17/2011 3:21:00 PM

**Collection Time:** 

Client Sample ID: TB-SB-03-0.6			Matrix: SOIL				
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	
ICP METALS TOTAL SW-846 - 3051/6010		SW6010B				Analyst: AL	
Antimony	ND	5.01		mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Arsenic	12.5	6.26		mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Beryllium	ND	0.313		mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Cadmium	ND	0.626	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Chromium	8.52	1.25	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Copper	24.9	3.13	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Lead	8.51	3.13	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Nickel	19.5	5.01	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Selenium	ND	15.0	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Silver	ND	1.75	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Thallium	ND	6.26	ı	mg/Kg-dry	1	2/24/2011 5:30:11 PM	
Zinc	33.9	7.51		mg/Kg-dry	1	2/24/2011 5:30:11 PM	
MERCURY, 7471A		SW7471A				Analyst: AL	
Mercury	ND	0.0507	ı	mg/Kg-dry	1	2/24/2011 1:00:25 PM	
PERCENT MOISTURE		D2216				Analyst: <b>SK</b>	
Percent Moisture	2.1	0	,	wt%	1	2/25/2011	

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury State Farm Phase II ESA

Lab Order:

1102053

Lab ID:

1102053-05

Collection Date: 2/17/2011 3:48:00 PM

**Collection Time:** 

Client Sample ID: TR-SR-04-0 6

Client Sample ID: TB-SB-04-0.6	Matrix: SOIL					
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CP METALS TOTAL SW-846 - 3051/6010		SW6010B				Analyst: AL
Antimony	ND	4.58		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Arsenic	9.37	5.72		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Beryllium	ND	0.286		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Cadmium	ND	0.572		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Chromium	8.41	1.14		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Copper	16.9	2.86		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Lead	6.64	2.86		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Nickel	15.2	4.58		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Selenium	ND	13.7		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Silver	ND	1.60		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Thallium	ND	5.72		mg/Kg-dry	1	2/24/2011 5:36:24 PM
Zinc	25.7	6.87		mg/Kg-dry	1	2/24/2011 5:36:24 PM
MERCURY, 7471A		SW7471A				Analyst: AL
Mercury	ND	0.0500		mg/Kg-dry	1	2/24/2011 1:03:45 PM
PERCENT MOISTURE		D2216				Analyst: SK
Percent Moisture	1.2	0		wt%	1	2/25/2011

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Project:

092224-R Duxbury State Farm Phase II ESA

Lab Order:

1102053

Lab ID:

1102053-06

Collection Date: 2/17/2011 4:18:00 PM

**Collection Time:** 

Client Sample ID: TB-SB-5-0.5

Cheft bampic 1D: 1D bb 5 0.5			Matrix. Bold					
Analyses	Result	RL	Qual	Units	DF	Date Analyzed		
ICP METALS TOTAL SW-846 - 3051/6010		SW6010B				Analyst: AL		
Antimony	ND	4.54		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Arsenic	10.6	5.67		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Beryllium	ND	0.284		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Cadmium	ND	0.567		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Chromium	14.0	1.13		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Copper	19.1	2.84		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Lead	7.22	2.84		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Nickel	21.0	4.54		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Selenium	ND	13.6		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Silver	ND	1.59		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Thallium	ND	5.67		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
Zinc	32.2	6.81		mg/Kg-dry	1	2/24/2011 5:42:37 PM		
MERCURY, 7471A		SW7471A				Analyst: AL		
Mercury	ND	0.0484		mg/Kg-dry	1	2/24/2011 1:07:04 PM		
PERCENT MOISTURE		D2216				Analyst: SK		
Percent Moisture	1.4	0		wt%	1	2/25/2011		

**Date:** 07-Mar-11

CLIENT: Stone Environmental, Inc. Lab Order: 1102053

**Project:** 092224-R Duxbury State Farm Phase II ESA

**Lab ID:** 1102053-07 **Collection Date:** 2/17/2011 4:40:00 PM

**Collection Time:** 

Client Sample ID: TB-SB-6-0.7 Matrix: SOIL

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	
ICP METALS TOTAL SW-846 - 3051/6010		SW6010B			Analyst: AL	
Antimony	ND	4.86	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Arsenic	9.08	6.07	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Beryllium	ND	0.304	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Cadmium	ND	0.607	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Chromium	, 16.4	1.21	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Copper	18.1	3.04	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Lead	8.44	3.04	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Nickel	20.1	4.86	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Selenium	ND	14.6	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Silver	ND	1.70	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Thallium	ND	6.07	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
Zinc	34.5	7.29	mg/Kg-dry	1	2/24/2011 5:48:52 PM	
MERCURY, 7471A		SW7471A			Analyst: AL	
Mercury	ND	0.0497	mg/Kg-dry	1	2/24/2011 1:10:23 PM	
PERCENT MOISTURE		D2216			Analyst: <b>SK</b>	
Percent Moisture	1.3	0	wt%	1	2/25/2011	

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-02-1.5-VOC

Lab Order:

1102053

Collection Date: 2/17/2011 3:03:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-08A

Analyses	Result	RL	Qual Units	DF	Date Analyzed
EPA 8260B VOLATILES BY GC/	MS, EPA 5035 ME	SW8260B			Analyst: SK
Dichlorodifluoromethane	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Chloromethane	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Vinyl chloride	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Chloroethane	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Bromomethane	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Trichlorofluoromethane	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Diethyl ether	ND	160	μg/Kg	1	2/24/2011 1:28:00 PM
Acetone	ND	160	μg/Kg	1	2/24/2011 1:28:00 PM
1,1-Dichloroethene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Carbon disulfide	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Methylene chloride	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Methyl tert-butyl ether	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
trans-1,2-Dichloroethene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,1-Dichloroethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
2-Butanone	ND	160	μg/Kg	1	2/24/2011 1:28:00 PM
2,2-Dichloropropane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
cis-1,2-Dichloroethene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Chloroform	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Tetrahydrofuran	ND	160	μg/Kg	1	2/24/2011 1:28:00 PM
Bromochloromethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,1,1-Trichloroethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,1-Dichloropropene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Carbon tetrachloride	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,2-Dichloroethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Benzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Trichloroethene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,2-Dichloropropane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Bromodichloromethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Dibromomethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
4-Methyl-2-pentanone	ND	160	μg/Kg	1	2/24/2011 1:28:00 PM
cis-1,3-Dichloropropene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Toluene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
trans-1,3-Dichloropropene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,1,2-Trichloroethane	ND	16	μg/Kg	. 1	2/24/2011 1:28:00 PM
1,2-Dibromoethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
2-Hexanone	ND	160	μg/Kg	1	2/24/2011 1:28:00 PM
1,3-Dichloropropane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Tetrachloroethene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Dibromochloromethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-02-1.5-VOC

Lab Order:

1102053

Collection Date: 2/17/2011 3:03:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-08A

Analyses	Result	RL (	ual Units	DF	Date Analyzed
Chlorobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,1,1,2-Tetrachloroethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Ethylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PN
m,p-Xylene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
o-Xylene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Styrene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Bromoform	ND	32	μg/Kg	1	2/24/2011 1:28:00 PN
Isopropylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PN
1,1,2,2-Tetrachloroethane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,2,3-Trichloropropane	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Bromobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
n-Propylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
2-Chlorotoluene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
4-Chlorotoluene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,3,5-Trimethylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
tert-Butylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,2,4-Trimethylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PN
sec-Butylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
4-Isopropyltoluene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PN
1,3-Dichlorobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PN
1,4-Dichlorobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
n-Butylbenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,2-Dichlorobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
1,2-Dibromo-3-chloropropane	ND	80	μg/Kg	1	2/24/2011 1:28:00 PM
1,2,4-Trichlorobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PN
Hexachlorobutadiene	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
Naphthalene	ND	32	μg/Kg	1	2/24/2011 1:28:00 PM
1,2,3-Trichlorobenzene	ND	16	μg/Kg	1	2/24/2011 1:28:00 PM
Surr: Dibromofluoromethane	120	51-137	%REC	1	2/24/2011 1:28:00 PM
Surr: 1,2-Dichloroethane-d4	120	47-140	%REC	1	2/24/2011 1:28:00 PM
Surr: Toluene-d8	124	55-140	%REC	1	2/24/2011 1:28:00 PN
Surr: 4-Bromofluorobenzene	103	44-135	%REC	1	2/24/2011 1:28:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-02-1.5-VOC-FD

Lab Order:

1102053

Collection Date: 2/17/2011 3:03:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID: 1102053-09A

Analyses	Result	RL	Qual Units	DF	Date Analyzed
PA 8260B VOLATILES BY GC/N	/IS, EPA 5035 ME	SW8260B			Analyst: <b>SK</b>
Dichlorodifluoromethane	ND	30	μg/Kg	1	2/24/2011 2:03:00 PM
Chloromethane	ND	30	μg/Kg	1	2/24/2011 2:03:00 PM
Vinyl chloride	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Chloroethane	ND	30	μg/Kg	1	2/24/2011 2:03:00 PM
Bromomethane	ND	. 30	μg/Kg	1	2/24/2011 2:03:00 PM
Trichlorofluoromethane	ND	30	μg/Kg	1	2/24/2011 2:03:00 PM
Diethyl ether	ND	150	μg/Kg	1	2/24/2011 2:03:00 PM
Acetone	ND	150	μg/Kg	1	2/24/2011 2:03:00 PM
1,1-Dichloroethene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Carbon disulfide	ND	30	μg/Kg	1	2/24/2011 2:03:00 PM
Methylene chloride	ND	30	μg/Kg	1	2/24/2011 2:03:00 PM
Methyl tert-butyl ether	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
trans-1,2-Dichloroethene	ND	15	μg/Kg	1 -	2/24/2011 2:03:00 PM
1,1-Dichloroethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
2-Butanone	ND	150	μg/Kg	1	2/24/2011 2:03:00 PM
2,2-Dichloropropane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
cis-1,2-Dichloroethene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Chloroform	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Tetrahydrofuran	ND	150	μg/Kg	1	2/24/2011 2:03:00 PM
Bromochloromethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
1,1,1-Trichloroethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
1,1-Dichloropropene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Carbon tetrachloride	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
1,2-Dichloroethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Benzene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Trichloroethene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
1,2-Dichloropropane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Bromodichloromethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Dibromomethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
4-Methyl-2-pentanone	ND	150	μg/Kg	1	2/24/2011 2:03:00 PM
cis-1,3-Dichloropropene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Toluene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
trans-1,3-Dichloropropene	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
1,1,2-Trichloroethane	. ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
1,2-Dibromoethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
2-Hexanone	ND	150	μg/Kg	1	2/24/2011 2:03:00 PM
1,3-Dichloropropane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Tetrachloroethene	· ND	15	μg/Kg	1	2/24/2011 2:03:00 PM
Dibromochloromethane	ND	15	μg/Kg	1	2/24/2011 2:03:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-02-1.5-VOC-FD

Lab Order:

1102053

Collection Date: 2/17/2011 3:03:00 PM

Project:

Lab ID:

092224-R Duxbury State Farm Phase II ESA 1102053-09A

Analyses	Result	RL	Qual U	Jnits	DF	Date Analyzed
Chlorobenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
1,1,1,2-Tetrachloroethane	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
Ethylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
m,p-Xylene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
o-Xylene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
Styrene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
Bromoform	ND	30	μ	g/Kg	1	2/24/2011 2:03:00 PM
Isopropylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
1,1,2,2-Tetrachloroethane	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
1,2,3-Trichloropropane	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
Bromobenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
n-Propylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
2-Chlorotoluene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
4-Chlorotoluene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
1,3,5-Trimethylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
tert-Butylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
1,2,4-Trimethylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
sec-Butylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
4-Isopropyltoluene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
1,3-Dichlorobenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
1,4-Dichlorobenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
n-Butylbenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
1,2-Dichlorobenzene	ND	15	μg	g/Kg	1	2/24/2011 2:03:00 PM
1,2-Dibromo-3-chloropropane	ND	76	μ	g/Kg	1	2/24/2011 2:03:00 PM
1,2,4-Trichlorobenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PM
Hexachlorobutadiene	ND	30	μ	g/Kg	1	2/24/2011 2:03:00 PN
Naphthalene	ND	30	μ	g/Kg	1	2/24/2011 2:03:00 PM
1,2,3-Trichlorobenzene	ND	15	μ	g/Kg	1	2/24/2011 2:03:00 PN
Surr: Dibromofluoromethane	86.9	51-137	%	REC	1	2/24/2011 2:03:00 PM
Surr: 1,2-Dichloroethane-d4	85.1	47-140	%	REC	1	2/24/2011 2:03:00 PM
Surr: Toluene-d8	89.1	55-140	%	REC	1	2/24/2011 2:03:00 PM
Surr: 4-Bromofluorobenzene	94.5	44-135	%	REC	1	2/24/2011 2:03:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-5-0.5-VOC

Lab Order:

1102053

Collection Date: 2/17/2011 4:18:00 PM

**Project:** 

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-10A

Analyses	Result	RL_	Qual U	J <b>nits</b>	DF	Date Analyzed
EPA 8260B VOLATILES BY GC/N	/IS, EPA 5035 ME	SW8260B				Analyst: SK
Dichlorodifluoromethane	ND	23	μ	g/Kg	1	2/24/2011 2:39:00 PM
Chloromethane	ND	23	μ	g/Kg	· 1	2/24/2011 2:39:00 PM
Vinyl chloride	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Chloroethane	ND	23	μ	g/Kg	1	2/24/2011 2:39:00 PM
Bromomethane	ND	23	μ	g/Kg	· 1	2/24/2011 2:39:00 PM
Trichlorofluoromethane	ND	23	μ	g/Kg	1	2/24/2011 2:39:00 PM
Diethyl ether	ND	120	μ	g/Kg	1	2/24/2011 2:39:00 PM
Acetone	ND	120	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,1-Dichloroethene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Carbon disulfide	ND	23	μ	g/Kg	1	2/24/2011 2:39:00 PM
Methylene chloride	ND	23	μ	g/Kg	1	2/24/2011 2:39:00 PM
Methyl tert-butyl ether	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
trans-1,2-Dichloroethene	ND	12	. р	g/Kg	1	2/24/2011 2:39:00 PM
1,1-Dichloroethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
2-Butanone	ND	120	μ	g/Kg	1	2/24/2011 2:39:00 PM
2,2-Dichloropropane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
cis-1,2-Dichloroethene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Chloroform	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Tetrahydrofuran	ND	120	μ	g/Kg	1	2/24/2011 2:39:00 PM
Bromochloromethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,1,1-Trichloroethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,1-Dichloropropene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Carbon tetrachloride	ND	12	·μ	g/Kg	1	2/24/2011 2:39:00 PM
1,2-Dichloroethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Benzene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Trichloroethene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,2-Dichloropropane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Bromodichloromethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Dibromomethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
4-Methyl-2-pentanone	ND	120	μ	g/Kg	1	2/24/2011 2:39:00 PM
cis-1,3-Dichloropropene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Toluene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
trans-1,3-Dichloropropene	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,1,2-Trichloroethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,2-Dibromoethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
2-Hexanone	ND	120	μ	g/Kg	1	2/24/2011 2:39:00 PM
1,3-Dichloropropane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM
Tetrachloroethene	ND	12		g/Kg	1	2/24/2011 2:39:00 PM
Dibromochloromethane	ND	12	μ	g/Kg	1	2/24/2011 2:39:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-5-0.5-VOC

Lab Order:

1102053

Collection Date: 2/17/2011 4:18:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-10A

Analyses	Result	RL	Qual Units	DF	Date Analyzed
Chlorobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,1,1,2-Tetrachloroethane	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
Ethylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
m,p-Xylene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
o-Xylene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
Styrene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
Bromoform	ND	23	μg/Kg	1	2/24/2011 2:39:00 PM
Isopropylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,1,2,2-Tetrachloroethane	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,2,3-Trichloropropane	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
Bromobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
n-Propylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
2-Chlorotoluene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
4-Chlorotoluene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,3,5-Trimethylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
tert-Butylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,2,4-Trimethylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
sec-Butylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
4-Isopropyltoluene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,3-Dichlorobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,4-Dichlorobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
n-Butylbenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,2-Dichlorobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
1,2-Dibromo-3-chloropropane	ND	59	μg/Kg	1	2/24/2011 2:39:00 PM
1,2,4-Trichlorobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
Hexachlorobutadiene	ND	23	μg/Kg	1	2/24/2011 2:39:00 PM
Naphthalene	ND	23	μg/Kg	1	2/24/2011 2:39:00 PM
1,2,3-Trichlorobenzene	ND	12	μg/Kg	1	2/24/2011 2:39:00 PM
Surr: Dibromofluoromethane	88.3	51-137	%REC	1	2/24/2011 2:39:00 PM
Surr: 1,2-Dichloroethane-d4	88.3	47-140	%REC	1	2/24/2011 2:39:00 PM
Surr: Toluene-d8	90.8	55-140	%REC	1	2/24/2011 2:39:00 PM
Surr: 4-Bromofluorobenzene	97.2	44-135	%REC	1	2/24/2011 2:39:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-01

Lab Order:

1102053

Collection Date: 2/17/2011 5:00:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-11A

Analyses	Result	RL	Qual Uni	its DF	Date Analyzed
EPA 8260B VOLATILES BY GC/M	/IS, EPA 5035 ME	SW8260B			Analyst: <b>SK</b>
Dichlorodifluoromethane	ND.	50	μg/k	(g 1	2/24/2011 12:52:00 PM
Chloromethane	ND	50	μg/k	(g 1	2/24/2011 12:52:00 PM
Vinyl chloride	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Chloroethane	ND	50	μg/k	(g 1	2/24/2011 12:52:00 PM
Bromomethane	ND	50	μg/k	(g 1	2/24/2011 12:52:00 PM
Trichlorofluoromethane	ND	50	μg/k	(g 1	2/24/2011 12:52:00 PM
Diethyl ether	ND	250	μg/k	(g 1	2/24/2011 12:52:00 PM
Acetone	ND	250	μg/k	(g 1	2/24/2011 12:52:00 PM
1,1-Dichloroethene	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Carbon disulfide	ND	50	μg/k	(g 1	2/24/2011 12:52:00 PM
Methylene chloride	ND	50	μg/h	(g 1	2/24/2011 12:52:00 PM
Methyl tert-butyl ether	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
trans-1,2-Dichloroethene	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
1,1-Dichloroethane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
2-Butanone	ND	250	μg/k	(g 1	2/24/2011 12:52:00 PM
2,2-Dichloropropane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
cis-1,2-Dichloroethene	ND	25	- μg/k	⟨g 1	2/24/2011 12:52:00 PM
Chloroform	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Tetrahydrofuran	ND	250	μg/ŀ	(g 1	2/24/2011 12:52:00 PM
Bromochloromethane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
1,1,1-Trichloroethane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
1,1-Dichloropropene	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Carbon tetrachloride	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
1,2-Dichloroethane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Benzene	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Trichloroethene	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
1,2-Dichloropropane	ND	25	μg/k	⟨g 1	2/24/2011 12:52:00 PM
Bromodichloromethane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Dibromomethane	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
4-Methyl-2-pentanone	ND	250	μg/ł	(g 1	2/24/2011 12:52:00 PM
cis-1,3-Dichloropropene	ND	25	μg/k	(g 1	2/24/2011 12:52:00 PM
Toluene	ND	25	μg/ł	(g 1	2/24/2011 12:52:00 PM
trans-1,3-Dichloropropene	ND	25	μg/ŀ	√g 1	2/24/2011 12:52:00 PM
1,1,2-Trichloroethane	ND	25	μg/ŀ	(g 1	2/24/2011 12:52:00 PM
1,2-Dibromoethane	ND	25	μg/k		2/24/2011 12:52:00 PM
2-Hexanone	ND	250	μg/ł	-	2/24/2011 12:52:00 PM
1,3-Dichloropropane	ND	25	μg/ŀ		2/24/2011 12:52:00 PM
Tetrachloroethene	ND	25	μg/k	-	2/24/2011 12:52:00 PM
Dibromochloromethane	ND	25	μg/k	<b>(</b> g 1	2/24/2011 12:52:00 PM

**Date:** 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-01

Lab Order:

1102053

**Collection Date: 2/17/2011 5:00:00 PM** 

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-11A

nalyses	Result	RL Qu	ual Units	$\mathbf{DF}$	Date Analyzed
Chlorobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PM
1,1,1,2-Tetrachloroethane	ND	25	μg/Kg	1	2/24/2011 12:52:00 PM
Ethylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PM
m,p-Xylene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
o-Xylene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
Styrene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
Bromoform	. ND	50	μg/Kg	1	2/24/2011 12:52:00 PI
Isopropylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,1,2,2-Tetrachloroethane	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,2,3-Trichloropropane	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
Bromobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
n-Propylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
2-Chlorotoluene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
4-Chlorotoluene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,3,5-Trimethylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
tert-Butylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,2,4-Trimethylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
sec-Butylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
4-Isopropyltoluene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,3-Dichlorobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,4-Dichlorobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
n-Butylbenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,2-Dichlorobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
1,2-Dibromo-3-chloropropane	ND	120	μg/Kg	1	2/24/2011 12:52:00 PI
1,2,4-Trichlorobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
Hexachlorobutadiene	ND	50	μg/Kg	1	2/24/2011 12:52:00 PI
Naphthalene	ND	50	μg/Kg	1	2/24/2011 12:52:00 PI
1,2,3-Trichlorobenzene	ND	25	μg/Kg	1	2/24/2011 12:52:00 PI
Surr: Dibromofluoromethane	76.9	51-137	%REC	1	2/24/2011 12:52:00 PI
Surr: 1,2-Dichloroethane-d4	87.6	47-140	%REC	1	2/24/2011 12:52:00 PI
Surr: Toluene-d8	89.8	55-140	%REC	1	2/24/2011 12:52:00 PI
Surr: 4-Bromofluorobenzene	96.0	44-135	%REC	1	2/24/2011 12:52:00 PI

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-1-0.5

Lab Order:

1102053

Collection Date: 2/17/2011 2:15:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-01A

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM		SW8270C			Analyst: NS
Naphthalene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
2-Methylnaphthalene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Acenaphthylene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Acenaphthene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Fluorene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Phenanthrene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Anthracene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Fluoranthene	10	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Pyrene	13	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Benz(a)anthracene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Chrysene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Benzo(b)fluoranthene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Benzo(k)fluoranthene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Benzo(a)pyrene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Dibenz(a,h)anthracene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Indeno(1,2,3-cd)pyrene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Benzo(g,h,i)perylene	ND	10	μg/Kg-dry	1	2/24/2011 11:13:00 PM
Surr: Nitrobenzene-d5	47.9	15-103	%REC	1	2/24/2011 11:13:00 PM
Surr: 2-Fluorobiphenyl	75.4	21.9-109	%REC	1	2/24/2011 11:13:00 PM
Surr: 4-Terphenyl-d14	105	42.8-147	%REC	1	2/24/2011 11:13:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-1-0.5-FD

Lab Order:

1102053

Collection Date: 2/17/2011 2:15:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

lion Date: 2/1//2011 2.15.0

Lab ID:

1102053-02A

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PAH BY EPA 8270C SIM	•	W8270C				Analyst: NS
Naphthalene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
2-Methylnaphthalene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Acenaphthylene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Acenaphthene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Fluorene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Phenanthrene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Anthracene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Fluoranthene	11	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Pyrene	15	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Benz(a)anthracene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Chrysene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Benzo(b)fluoranthene	11	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Benzo(k)fluoranthene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Benzo(a)pyrene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Dibenz(a,h)anthracene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Benzo(g,h,i)perylene	ND	10		μg/Kg-dry	1	2/24/2011 11:48:00 PM
Surr: Nitrobenzene-d5	45.7	15-103		%REC	1	2/24/2011 11:48:00 PM
Surr: 2-Fluorobiphenyl	77.7	21.9-109		%REC	1	2/24/2011 11:48:00 PM
Surr: 4-Terphenyl-d14	111	42.8-147		%REC	1	2/24/2011 11:48:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-02-0.9

Lab Order:

1102053

Collection Date: 2/17/2011 2:51:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-03A

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed
PAH BY EPA 8270C SIM		SW8270C			Analyst: NS
Naphthalene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
2-Methylnaphthalene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Acenaphthylene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Acenaphthene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Fluorene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Phenanthrene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Anthracene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Fluoranthene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Pyrene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Benz(a)anthracene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Chrysene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Benzo(b)fluoranthene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Benzo(k)fluoranthene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Benzo(a)pyrene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Dibenz(a,h)anthracene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Indeno(1,2,3-cd)pyrene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Benzo(g,h,i)perylene	ND	9.9	μg/Kg-dry	1	2/25/2011 12:23:00 AM
Surr: Nitrobenzene-d5	34.2	15-103	%REC	1	2/25/2011 12:23:00 AM
Surr: 2-Fluorobiphenyl	64.9	21.9-109	%REC	1	2/25/2011 12:23:00 AM
Surr: 4-Terphenyl-d14	94.8	42.8-147	%REC	1	2/25/2011 12:23:00 AM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-03-0.6

Lab Order:

1102053

Collection Date: 2/17/2011 3:21:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-04A

Analyses	Result	<b>R</b> L	Qual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM	<del></del>	SW8270C			Analyst: <b>NS</b>
Naphthalene	ND	10	μg/Kg-d <b>ry</b>	1	2/25/2011 12:58:00 AM
2-Methylnaphthalene	ND	10	μg/Kg-dry	1	2/25/2011 12:58:00 AM
Acenaphthylene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Acenaphthene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Fluorene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Phenanthrene	ND	10	μg/Kg-dry	1	2/25/2011 12:58:00 AM
Anthracene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Fluoranthene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Pyrene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Benz(a)anthracene	ND	10	μg/Kg-dry	1	2/25/2011 12:58:00 AM
Chrysene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Benzo(b)fluoranthene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Benzo(k)fluoranthene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Benzo(a)pyrene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Dibenz(a,h)anthracene	ND	10	μg/Kg-dr <b>y</b>	1	2/25/2011 12:58:00 AM
Indeno(1,2,3-cd)pyrene	ND	10	μg/Kg- <b>dry</b>	1	2/25/2011 12:58:00 AM
Benzo(g,h,i)perylene	ND	10	μg/Kg-dry	1	2/25/2011 12:58:00 AM
Surr: Nitrobenzene-d5	38.5	15-103	%REC	1	2/25/2011 12:58:00 AM
Surr: 2-Fluorobiphenyl	72.1	21.9-109	%REC	1	2/25/2011 12:58:00 AM
Surr: 4-Terphenyl-d14	98.6	42.8-147	%REC	1	2/25/2011 12:58:00 AM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-04-0.6

Lab Order:

1102053

Collection Date: 2/17/2011 3:48:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

I.ah	ID.

1102053-05A

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM		SW8270C			Analyst: NS
Naphthalene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
2-Methylnaphthalene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Acenaphthylene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Acenaphthene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Fluorene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Phenanthrene	11	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Anthracene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Fluoranthene	27	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Pyrene	24	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Benz(a)anthracene	11	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Chrysene	17	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Benzo(b)fluoranthene	24	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Benzo(k)fluoranthene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Benzo(a)pyrene	13	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Dibenz(a,h)anthracene	ND	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Indeno(1,2,3-cd)pyrene	11	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Benzo(g,h,i)perylene	12	10	μg/Kg-dry	1	2/25/2011 1:33:00 AM
Surr: Nitrobenzene-d5	35.9	15-103	%REC	1	2/25/2011 1:33:00 AM
Surr: 2-Fluorobiphenyl	66.1	21.9-109	%REC	1	2/25/2011 1:33:00 AM
Surr: 4-Terphenyl-d14	93.9	42.8-147	%REC	1	2/25/2011 1:33:00 AM

**Date:** 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-5-0.5

Lab Order:

1102053

Collection Date: 2/17/2011 4:18:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-06A

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM	SW8270C				Analyst: NS
Naphthalene	ND	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
2-Methylnaphthalene	ND	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Acenaphthylene	ND	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Acenaphthene	ND	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Fluorene	ND	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Phenanthrene	93	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Anthracene	19	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Fluoranthene	130	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Pyrene	110	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Benz(a)anthracene	59	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Chrysene	68	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Benzo(b)fluoranthene	92	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Benzo(k)fluoranthene	30	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Benzo(a)pyrene	52	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Dibenz(a,h)anthracene	ND	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Indeno(1,2,3-cd)pyrene	35	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Benzo(g,h,i)perylene	38	9.9	μg/Kg-dry	1	2/25/2011 2:08:00 AM
Surr: Nitrobenzene-d5	44.3	15-103	%REC	1	2/25/2011 2:08:00 AM
Surr: 2-Fluorobiphenyl	77.0	21.9-109	%REC	1	2/25/2011 2:08:00 AM
Surr: 4-Terphenyl-d14	108	42.8-147	%REC	1	2/25/2011 2:08:00 AM

Date: 07-Mar-11

CLIENT:

Stone Environmental, Inc.

Client Sample ID: TB-SB-6-0.7

Lab Order:

1102053

Collection Date: 2/17/2011 4:40:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-07A

Analyses	Result	RL C	Qual Units	DF	Date Analyzed
PAH BY EPA 8270C SIM	SW8270C				Analyst: NS
Naphthalene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
2-Methylnaphthalene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Acenaphthylene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Acenaphthene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Fluorene	· ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Phenanthrene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Anthracene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Fluoranthene	12	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Pyrene	14	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Benz(a)anthracene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Chrysene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Benzo(b)fluoranthene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Benzo(k)fluoranthene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Benzo(a)pyrene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Dibenz(a,h)anthracene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Indeno(1,2,3-cd)pyrene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Benzo(g,h,i)perylene	ND	9.7	μg/Kg-dry	1	2/25/2011 2:43:00 AM
Surr: Nitrobenzene-d5	40.0	15-103	%REC	1	2/25/2011 2:43:00 AM
Surr: 2-Fluorobiphenyl	71.4	21.9-109	%REC	1	2/25/2011 2:43:00 AM
Surr: 4-Terphenyl-d14	101	42.8-147	%REC	1	2/25/2011 2:43:00 AM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-1-0.5

Lab Order:

1102053

Collection Date: 2/17/2011 2:15:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-01A

Analyses	Result	RL	Qual Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE PESTICIDES		SW8081A			Analyst: <b>KA</b>
alpha-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
beta-BHC	ND	0.81	µg/Kg-dry	1	3/4/2011 4:21:00 PM
delta-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
gamma-BHC	ND	0.81	µg/Kg-dry	1	3/4/2011 4:21:00 PM
Heptachlor	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Aldrin	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Heptachlor epoxide	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Endosulfan i	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
alpha-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
gamma-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Dieldrin	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
4,4'-DDE	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Endrin	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Endosulfan II	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
4,4'-DDD	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Endrin aldehyde	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Endrin ketone	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Endosulfan sulfate	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
4,4'-DDT	ND	1.6	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Methoxychlor	ND	. 8.1	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Toxaphene	ND	25	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Technical Chlordane	ND	25	μg/Kg-dry	1	3/4/2011 4:21:00 PM
Surr: Tetrachloro-m-xylene	82.7	48-141	%REC	1	3/4/2011 4:21:00 PM
Surr: Decachlorobiphenyl	82.5	37-157	%REC	1	3/4/2011 4:21:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-1-0.5-FD

Lab Order:

1102053

Collection Date: 2/17/2011 2:15:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Lab ID:

1102053-02A

Matrix: SOIL

Analyses	Result	RL	Qual Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE PESTICIDES		SW8081A			Analyst: KA
alpha-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
beta-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
delta-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
gamma-BHC	, ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Heptachlor	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Aldrin	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Heptachlor epoxide	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Endosulfan I	ND	0.81	µg/Kg-dry	1	3/4/2011 4:48:00 PM
alpha-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
gamma-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Dieldrin	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
4,4'-DDE	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Endrin	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Endosulfan II	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
4,4'-DDD	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Endrin aldehyde	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Endrin ketone	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Endosulfan sulfate	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
4,4'-DDT	ND	1.6	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Methoxychlor	ND	8.1	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Toxaphene	ND	25	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Technical Chlordane	ND	25	μg/Kg-dry	1	3/4/2011 4:48:00 PM
Surr: Tetrachloro-m-xylene	83.0	48-141	%REC	1	3/4/2011 4:48:00 PM
Surr: Decachlorobiphenyl	83.2	37-157	%REC	1	3/4/2011 4:48:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

1102053

Client Sample ID: TB-SB-02-0.9

Lab Order: 11

Collection Date: 2/17/2011 2:51:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-03A

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE PESTICIDES		SW8081A			Analyst: KA
alpha-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
beta-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
delta-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
gamma-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Heptachlor	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Aldrin	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Heptachlor epoxide	ND	. 0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Endosulfan I	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
alpha-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
gamma-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Dieldrin	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
4,4'-DDE	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Endrin	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Endosulfan II	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
4,4'-DDD	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Endrin aldehyde	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Endrin ketone	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Endosulfan sulfate	ND	1.6	µg/Kg-dry	1	3/4/2011 5:15:00 PM
4,4'-DDT	ND	1.6	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Methoxychlor	ND	8.1	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Toxaphene	ND	25	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Technical Chlordane	ND	25	μg/Kg-dry	1	3/4/2011 5:15:00 PM
Surr: Tetrachloro-m-xylene	77.4	48-141	%REC	1	3/4/2011 5:15:00 PM
Surr: Decachlorobiphenyl	80.2	37-157	%REC	1	3/4/2011 5:15:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-03-0.6

Lab Order:

1102053

Collection Date: 2/17/2011 3:21:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-04A

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: KA
alpha-BHC	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
beta-BHC	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
delta-BHC	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
gamma-BHC	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Heptachlor	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Aldrin	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Heptachlor epoxide	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Endosulfan I	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
alpha-Chlordane	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
gamma-Chlordane	ND	0.81		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Dieldrin	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
4,4'-DDE	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Endrin	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Endosulfan II	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
4,4'-DDD	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Endrin aldehyde	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Endrin ketone	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Endosulfan sulfate	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
4,4'-DDT	ND	1.6		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Methoxychlor	ND	8.1		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Toxaphene	ND	25		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Technical Chlordane	ND	25		μg/Kg-dry	1	3/4/2011 6:37:00 PM
Surr: Tetrachloro-m-xylene	78.9	48-141		%REC	1	3/4/2011 6:37:00 PM
Surr: Decachlorobiphenyl	84.4	37-157		%REC	1	3/4/2011 6:37:00 PM

**Date:** 07-Mar-11

CLIENT:

Stone Environmental, Inc.

1102053

Client Sample ID: TB-SB-04-0.6

Lab Order: 1

Collection Date: 2/17/2011 3:48:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID: 1102053-05A

Analyses	Result	RL (	Qual Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE P	ESTICIDES	SW8081A			Analyst: KA
alpha-BHC	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
beta-BHC	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
delta-BHC	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
gamma-BHC	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Heptachlor	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Aldrin	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Heptachlor epoxide	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Endosulfan I	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
alpha-Chlordane	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
gamma-Chlordane	ND	0.80	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Dieldrin	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
4,4'-DDE	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Endrin	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Endosulfan II	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
4,4´-DDD	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Endrin aldehyde	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Endrin ketone	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Endosulfan sulfate	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
4,4'-DDT	ND	1.6	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Methoxychlor	ND	8.0	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Toxaphene	ND	25	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Technical Chlordane	ND	25	μg/Kg-dry	1	3/4/2011 7:04:00 PM
Surr: Tetrachloro-m-xylene	77.0	48-141	%REC	1	3/4/2011 7:04:00 PM
Surr: Decachlorobiphenyl	71.5	37-157	%REC	1	3/4/2011 7:04:00 PM

Date: 07-Mar-11

**CLIENT:** 

Stone Environmental, Inc.

Client Sample ID: TB-SB-5-0.5

Lab Order:

1102053

Collection Date: 2/17/2011 4:18:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-06A

Analyses	Result	RL	Qual U	Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE PESTICIDES		SW8081A				Analyst: KA
alpha-BHC	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
beta-BHC	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
delta-BHC	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
gamma-BHC	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Heptachlor	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Aldrin	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Heptachlor epoxide	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Endosulfan I	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
alpha-Chiordane	ND	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
gamma-Chlordane	NĎ	0.80	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Dieldrin	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
4,4'-DDE	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Endrin	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Endosulfan II	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
4,4´-DDD	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Endrin aldehyde	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Endrin ketone	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Endosulfan sulfate	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
4,4'-DDT	ND	1.6	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Methoxychlor	ND	8.0	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Toxaphene	ND	25	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Technical Chlordane	ND	25	μ	ıg/Kg-dry	1	3/4/2011 7:31:00 PM
Surr: Tetrachloro-m-xylene	75.9	48-141	9	%REC	1	3/4/2011 7:31:00 PM
Surr: Decachlorobiphenyl	72.7	37-157	9	%REC	1	3/4/2011 7:31:00 PM

Date: 07-Mar-11

CLIENT:

Stone Environmental, Inc.

Client Sample ID: TB-SB-6-0.7

Lab Order:

1102053

Collection Date: 2/17/2011 4:40:00 PM

Project:

092224-R Duxbury State Farm Phase II ESA

Matrix: SOIL

Lab ID:

1102053-07A

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
EPA 8081A ORGANOCHLORINE PESTICIDES		SW8081A			Analyst: KA
alpha-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
beta-BHC	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
delta-BHC	ND	0.81	µg/Kg-dry	1	3/4/2011 7:58:00 PM
gamma-BHC	ND	0.81	µg/Kg-dry	1	3/4/2011 7:58:00 PM
Heptachlor	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Aldrin	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Heptachlor epoxide	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Endosulfan I	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
alpha-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
gamma-Chlordane	ND	0.81	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Dieldrin	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
4,4'-DDE	ND	1.6	µg/Kg-dry	1	3/4/2011 7:58:00 PM
Endrin	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Endosulfan II	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
4,4'-DDD	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Endrin aldehyde	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Endrin ketone	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Endosulfan sulfate	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
4,4'-DDT	ND	1.6	μg/Kg-dry	1	3/4/2011 7:58:00 PM
Methoxychlor	ND	8.1	µg/Kg-dry	1	3/4/2011 7:58:00 PM
Toxaphene	ND	25	µg/Kg-dry	1	3/4/2011 7:58:00 PM
Technical Chlordane	ND	25	µg/Kg-dry	1	3/4/2011 7:58:00 PM
Surr: Tetrachloro-m-xylene	71.9	48-141	%REC	1	3/4/2011 7:58:00 PM
Surr: Decachlorobiphenyl	67.9	37-157	%REC	1	3/4/2011 7:58:00 PM

# APPENDIX D: COSTS FOR DISPOSAL OF HAZARDOUS WASTES

# **Precision Industrial Maintenance**

12 Mill Street, Barre, VT. 05641 Phone: (802) 479-0046 Fax:(802) 479-0048 jguzelak@precisionindustrial.info

Dan Voisin Stone Environmental, Inc. 535 Stone Cutters Way Montpelier, VT 05602 March 3, 2011

Re: Duxbury State Farm lab pack disposal

Mr. Voisin,

Precision Industrial Maintenance is pleased to present this quote for the packaging and disposal of listed materials from the Duxbury State Farm, Duxbury, VT.

-PCO4LP (Non-Reg Sludges)

\$250 / 55g

-RO1 (Paint and Solvent Sludges)

\$150 / 5g:\$250 / 30g

-LPEST (Pesticide Liquids)

\$2 / lb.: \$325 min / 55g: \$215 min / 30g

-STOXC2 (Dimethyl Hydantoin-Based)

\$875 / 30 G DM: \$1150 / 55g

-AA (Acid Solids)

\$115 / 5g

-PCO2 (Non Haz Solids, Non Petroleum)

\$115 / 30g

-UIK(Solvent Labpack)

\$ 115 / 5g

-Trash Disposal

\$ 150

-Container prices:

\$ 63.00 / 55g \$ 63.00 / 30g \$ 10.00 / 5g

-Labor:

\$ 52.00 / hr

-PPE (Level C)

\$ 85.00 / tech

-Vehicle

\$188.00 / day

Minimum Total Cost estimate = \$ 3565.00 (based on minimum size single container per waste stream by consolidation, (2) technicians for (1) day).

These costs are based on the assumption that the identifiable contents of the drums fall within grouping requirements. Off-specifications will be determined by end facility analysis, and will be passed on to the client.

To accept this quote, please sign /date below, and return	via fax at (802) 479-0048.
Signature:	Date:
Thank you in for integrating Precision Industrial Mainte transport and disposal needs. Please feel free to call me	•
Sincerely,	
Joe Guzelak Project Manager	