O'Reilly, Talbot & Okun
[A S S O C I A T E S]

EnvironmentalSafetyHealthGeotechnical

ENGINEERING

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October 25, 2010
File No. J22-23-02

Prepared For:

Town of Acton
472 Main Street
Acton, Massachusetts 01720

Attn: Mr. Roland Bartl

Soil and Sediment Sampling Program
Caouette Property
Stow and Maple Streets
Acton, Massachusetts

Prepared By:

O'Reilly, Talbot & Okun Associates, Inc.
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Westborough, Massachusetts 01581

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[A S S O C I A T E S]

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J0022-23-02
October 25, 2010

Mr. Roland Bartl
Planning Director
Town of Acton
472 Main Street
Acton, Massachusetts 01720

Re: Caouette Property - Soil and Sediment Sampling Program
Stow and Maple Streets
Acton, Massachusetts

Dear Mr. Bartl:

Attached is our updated report describing soil and sediment sampling and analysis performed at the above referenced property. This report includes the information from our September 29, 2010 report and the results of additional sampling conducted on October 4, 2010. The last section of this report includes a preliminary engineer's estimate of probable remediation costs.

As described in our September 29, 2010 report, we identified two areas of greater than 40 mg/kg arsenic in surface soils (0-1 foot depth) that may represent imminent hazard conditions as defined in the Massachusetts Contingency Plan. As a result of the October 4, 2010 sampling, an additional area of soil with arsenic greater than 40 mg/kg was identified. DEP has been notified of these conditions and the three areas are now fenced.

Should you have any questions regarding the report, please do not hesitate to call.

Very truly yours,
O'Reilly, Talbot & Okun Associates, Inc.

James D. Okun, LSP
~~Prin~~cipal

Bruce H. Nickelsen, LSP
Associate

1.0 INTRODUCTION

This report presents the results of additional soil and sediment sampling performed at the Caouette Property located off Stow and Maple Streets, adjacent to the former MBTA property in West Acton.

Following the issuance of our September 29, 2010 report, the Town of Acton requested O'Reilly, Talbot & Okun Associates, Inc. (OTO) to undertake additional soil sampling and analysis to better define an area of shallow soil contamination at the property. This report has been updated to include the information from this additional testing.

2.0 BACKGROUND

In March, 2010 O'Reilly, Talbot & Okun Associates, Inc. (OTO) completed a Phase I Environmental Site Assessment of two adjoining parcels located at 2 Stow Street and 90 Martin Street (Figure 1 – Site Locus). Our report found that an area along the northeastern portion of the Site had been used for industrial purposes by the "Morocco Factory" in the late 1800's and early 1900's. Historic maps were used to place the approximate building outlines on our Site Plan, which coincided with foundations at the Site. The Morocco Factory produced what were described as high grade soft leathers starting in approximately 1892. Our review indicated that "Morocco leather" was typically red, and could have been tanned through the use of either vegetable products or chromium. Following the Morocco Factory, the facility was occupied by an ice cream pail manufacturer. The Moore & Burgess Company (a fabric strip manufacturer) occupied the facility from 1908 through 1917. The buildings remained vacant until around 1930, when they were demolished. A former locomotive house and turntable (or roundhouse) building were located off-site, adjacent to the factory buildings in what we understand to be a former MBTA property now owned by the Town of Acton. The former historical industrial uses of the northeastern portion of the Site from 1892 through 1917 were identified as a Recognized Environmental Condition (REC) as that term is defined in the ASTM Environmental Site Asessement Standard. OTO recommended that to further evaluate possible impacts to Site soil and/or groundwater associated with this REC, a subsurface exploration program with testing of soil and groundwater should be performed in the vicinity of the former buildings.

In April and May, 2010, Groundwater & Environmental Services, Inc. (GES) of Westford, Massachusetts completed a Phase II Environmental Site Assessment of the property, which included a subsurface investigation program focusing on the former Morocco Factory area. The Phase II report was submitted to the town on June 7, 2010. The Phase II report described the following investigations:

1. Installation of four groundwater monitoring wells with collection of eight soil samples for analysis;
2. Collection of seven shallow soil samples for analysis;

3. Collection of six sediment[1] samples for analysis from four locations; and
4. Collection of four groundwater samples from the four groundwater monitoring wells for analysis.

The soil and sediment samples were analyzed for polycyclic aromatic hydrocarbons (PAHs) and the metals arsenic, chromium, lead and zinc. Groundwater from the four monitoring wells was analyzed for Volatile Organic Compounds (VOCs) and the dissolved metals arsenic, chromium, lead and zinc. The results of the soil and sediment sampling are summarized in Tables 1 and 2. As shown in Table 1, a number of PAHs and the metals arsenic, total chromium[2] and lead were detected in the shallow soil samples at concentrations greater than applicable RCS-1 reportable concentrations. The elevated PAHs were detected within the footprint of the former Site building. The elevated metals were within the former building foundation and in the vicinity of what is shown as a former coal pile on the historic maps.

As shown in Table 2, chromium was detected above the RCS-1 reporting standard in sediment, and above Massachusetts Department of Environmental Protection (DEP) freshwater sediment screening criteria for chromium and lead. One PAH was detected above the sediment screening criteria in one sediment sample (SD-4), although the detection limits for the PAH analyses were above a number of the criteria (see Table 2). Note that exceedances of sediment screening criteria do not by themselves trigger an obligation to notify DEP, although they do need to be addressed before a permanent solution can be achieved.

VOCs and metals were not detected in the four groundwater samples at concentrations above the applicable RCGW-2 reporting standard. Only the VOC naphthalene and the metal zinc were detected (in one and two groundwater samples respectively) at concentrations less than the RCGW-2 standard. Based on relative groundwater elevations, the groundwater flow direction at the Site was inferred to be towards the southeast and Mill Pond.

3.0 OTO SUBSURFACE INVESTIGATION PROGRAM

During the OTO's initial visit to the Site to select sample locations, it appeared that some of the sample locations used by GES were not located properly on their Site Plan. These monitoring well, sediment and soil sample locations were re-mapped onto OTO's Site Plan by our field use of tape measurements and are shown in Figure 2. It now appears that GES monitoring well MW-4 is located on property formerly owned by the MBTA and now owned by the Town; the Acton Engineering Department confirmed this finding. After confirming the location of MW-4 on Town-owned property, the Town notified DEP of the reportable condition identified by

[1] GES described samples collected adjacent to the Mill Pond (SD-1 through SD-4 locations) as "sediment". While this is a fine point of environmental science, soil at these locations is probably more accurately described as "wetland soil". In this report we continued use of the word "sediment" to describe this material for consistency.

[2] Per the Massachusetts Contingency Plan, total chromium is assumed to all be in the more toxic hexavalent form unless testing is done to prove otherwise. OTO's retest of these areas detected no hexavalent chromium, so the higher reporting standard (1,000 mg/kg) applies.

GES in the shallow soil sample from MW-4; and DEP has assigned Release Tracking Number (RTN) 2-17998 to that reported release.

Based on the results of the Phase II GES investigations the following soil sampling and analyses was performed by OTO:

1. Collection of additional shallow soil samples around the previously detected PAH detections to advance the evaluation of PAHs within the shallow soils at the Site;
2. Analysis of one soil sample with previously detected elevated PAHs for Extractable Petroleum Hydrocarbons (EPH);
3. Analysis of two soil samples from the area with PAHs by Scanning Electron Microscopy (SEM) to evaluate the possible presence of coal or wood ash;
4. Collection of a soil sample from 4 to 5 feet below grade at the MW-1 location for hexavalent chromium analysis;
5. Collection and analysis of shallow soil samples for lead and arsenic around previously detected lead and arsenic detections to help evaluate the extent of these metals in shallow soils;

And the following additional explorations and analyses were performed by OTO for sediment.

6. Sediment location SD-4 (0 to 2 feet below grade) was resampled and analyzed for PAHs, with lower detection limits to evaluate whether PAHs exceeded freshwater sediment screening criteria;
7. Shallow sediment locations SD-1, SD-3 and SD-4 were retested for hexavalent chromium; and
8. Shallow sediment location SD-4 and areas around it were retested for lead.

Soil and sediment samples were collected by OTO on September 1 and 2, 2010; samples were submitted to Alpha Laboratories (Alpha) of Westborough, Massachusetts. The soil sample for SEM analysis was submitted to SEMTech Solutions of North Billerica, Massachusetts. The Alpha laboratory reports and SEMTech laboratory report are attached in Appendices A and B respectively. The results of the Alpha analyses are summarized in Tables 3, 4 and 5.

As described in the following section, OTO's soil testing identified shallow soil locations with concentrations of arsenic, lead and PAHs greater than the MCP RCS-1 criteria. To better define these areas of elevated arsenic and lead concentrations, OTO was requested to collect an additional 20 shallow (0-1 foot) soil samples. To assess whether soil removed from the Site as part of remediation would be considered a hazardous waste, OTO analyzed three soil samples by the Toxicity Characteristic Leaching Procedure (TCLP) for lead and arsenic.

4.0 RESULTS OF ANALYSES

The following discussion presents the results of chemical analysis and preliminary delineations of the extent of contaminated soils. Possible sources of the detected contamination include

previous activities on the property (e.g. activities associated with the former Morocco Factory, other successor uses of the property, or the use of agricultural chemicals on the property) and/or (for certain constituents) previous activities associated with the historical uses of the adjacent railroad property near its property line with the subject property. Delineations of the extent of contamination are preliminary and confirmation of the extent is required to serve as a basis for final planning.

4.1 INITIAL SOIL TESTING

The goal of our initial sampling and analysis program was to better define areas of soil contamination identified by GES. Our results indicated the following:

1. PAHs are present at concentrations above the MCP S-1, GW-2 and GW-3 Method 1 standards in shallow soils (approximately 0 to 2 feet below grade) within and near the footprint of the former Morocco Factory building. This is illustrated on Figure 5, which shows color coded soil sample locations (in green) where laboratory results indicate concentrations of PAHs above method 1 standards. These data are summarized on Table 3. Review of lead analyses (Tables 1 and 4) indicate elevated lead is co-located with the elevated PAHs;
2. Arsenic is present at concentrations above the S-1, GW-2 and GW-3 Method 1 standards in shallow soils at the east end of the area of exploration (MW-3) and in the vicinity of what was identified as the former "coal pile" on historic maps (Table 4). This is illustrated on Figure 4, which shows color coded soil sample locations (in red) where laboratory results indicate concentrations of arsenic above the Method 1 standard of 20 mg/kg;
3. Testing did not identify hexavalent chromium in Site soils (Table 4); as a result, we have concluded that chromium is not a Contaminant of Concern for Site soils.

Our review of the SEMTech report indicates that while coal ash, wood ash and coal were all present in the two tested soil samples, coal tar was also present. The presence of coal tar means that in our opinion the notification exemption for coal ash, wood ash and coal should not be used at the Site.

Based on the results of this testing, we identified two areas that were fenced as Immediate Response Actions to limit access to arsenic containing soil following DEP notification. As discussed below, a third area with elevated arsenic concentrations was identified from the October 4, 2010 sampling and this area is also now fenced.

4.2 SUBSEQUENT SOIL SAMPLING TO ASSESS EXTENT OF IMPACT

Following the receipt of the results described in Section 4.1, the Town requested OTO to conduct additional sampling and analysis to better define the extent of the contaminated shallow soils. This subsequent phase of soil testing took place on October 4, 2010. The 20 additional soil samples were designated as SS-11 through SS-30. The locations and test results for these

samples are shown on Figure 2.1, the laboratory report is included in Appendix C, and the results are summarized in Table 6.

At the location of the former small out-building at sample SS-25, arsenic was detected at 200 mg/kg, which exceeds the imminent hazard criteria. After OTO reported the results of this testing, the third area of elevated arsenic in shallow soils was fenced as well[3].

The samples collected from the farm field area (represented by samples SS-11 through SS-23) did not have concentrations greater than the RCS-1 criteria. Two other areas with elevated concentrations of arsenic and/or lead were identified. The first of these was within the arms of the former small "L" shaped building (sample SS-30) and the other was within the foundation perimeter of the largest of the former buildings (samples SS-27 and SS-28).

4.3 TCLP TESTING OF IMPACTED SOIL

To evaluate if the arsenic or lead in Site soil would causes the soil to be characteristically hazardous pursuant to the Massachusetts Hazardous Waste Regulations (310 CMR 30.000), we requested our contract laboratories to prepare and analyze three composite samples of soil for TCLP testing. Each of the individual samples included in the composite contained lead and/or arsenic at a concentration equal to or greater than 100 mg/kg. Note that Alpha Analytical Laboratories analyzed two of these samples (report in and Appendix A) and Contest Analytical Laboratories analyzed one of the samples (report in Appendix C).

The results of the TCLP testing are summarized on Table 7. The three samples did not contain concentrations of extractable arsenic or lead high enough for the soil to be classified as a characteristically hazardous waste. Therefore when generated the waste from this area would not be considered hazardous.

4.4 SEDIMENT

To conduct a preliminary evaluation of possible impacts to sediment, we compared the concentrations detected to DEP's Freshwater Sediment Screening Criteria and to the MCP S-1 soil criteria; a summary of this comparison is shown on Tables 2 and 5. The following summarize our conclusions from this comparison.

1. A single PAH constituent (fluorene) was detected in one sediment sample (SD-4) at a concentration above Freshwater Sediment Screening Criteria (Table 2), but well below the MCP S-1 standards. This location is the one closest sediment sample to the railroad tracks and past rail road operations may have impacted sediment in this area.
2. Hexavalent chromium was not detected in Site sediment (Table 5). In our opinion chromium is not a Contaminant of Concern for Site sediment;

[3] Initially, blaze orange construction/snow fencing was installed with steel stakes. At DEP's request, this fencing is being upgraded to five foot temporary steel fencing.

3. Retesting of sediment location SD-4 did not identify lead concentrations above Method 1 S-1 standards or the sediment screening criteria (Table 5). In our opinion lead is not a Contaminant of Concern for Site sediment.
4. At this time we do not foresee the need for remediation in the pond, although additional ecological risk characterization will need to be part of the MCP Site closure process.

4.5 PRELIMINARY ESTIMATES OF PROBABLE REMEDIATION COSTS

The cost estimates presented in this section should be considered preliminary; additional information will be needed to refine them. Our preliminary estimates of impacted soil volumes are based on limited testing on the Stow/Maple Street property; although these concentrations may well extend onto the former MBTA/future rail trail property. The estimates of probable remediation cost were developed based on the assumption that concentrations of contaminants at the property will be reduced by removal of contaminated soil such that a permanent solution may be achieved without the application of an Activity and Use Limitation[4]. While there may be less expensive options (such as keeping the impacted soil on the Site under a protective soil layer and imposing an Activity and Use Limitation of the affected areas), we have prepared these preliminary estimates as likely upper-bound estimates of probable remediation cost.

The area of the former Morocco Factory known to be impacted with PAHs and lead is approximately 3,400 square feet (40 by 85 feet - Figure 3). An assumed two foot thickness of impacted soil yields a volume of 250 cubic yards. At 1.5 tons per cubic yard approximately 380 tons of PAH impacted soils would be generated through its excavation.

The three areas of the Site known from the initial testing to be impacted with arsenic total approximately 2,500 square feet. A presumed two foot thickness of contaminated soil yields a volume of 185 cubic yards. At 1.5 tons per cubic yard approximately 280 tons of arsenic impacted soils would be generated through remediation.

We contacted ESMI of Loudon, New Hampshire regarding the potential disposal of this contaminated soil at their facility. Since our subsequent test results indicate the soil is not a characteristically hazardous waste[5], it is our opinion that it should meet their acceptance criteria. Trucking to and disposal at this facility is expected to cost about $50 per ton.

In addition to the transportation and disposal fee, you should assume an additional approximately $50 per ton for Site preparation, excavation and restoration, so that a cost of $100 per ton for the total 660 tons ($66,000) is our preliminary estimate for the excavation and off-site disposal the impacted soil.

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[4] An Activity and Use Limitation (or AUL) is a notice registered on the deed for the property which includes specific descriptions of activities that are permitted and activities that are not permitted on the property. AULs are also referred to as institutional controls.

[5] See Table 7 for a summary of the results of TCLP testing to asses if the Site soil is characteristically hazardous.

Based on the results of the subsequent soil testing (described in Section 4.2 of this report), three additional areas were identified where shallow soil contains elevated concentrations of arsenic and/or lead. Based on field observations and the test results from adjacent areas, we are assuming that each of these locations of elevated concentrations has an area of 10 yards by 10 yards and is 2.0 feet deep. This would result in an additional 200 cubic yards (or 300 tons) of additional soil to be removed from the Site. At a unit removal cost of $100/ton, this would increase the remediation cost by $30,000.

In addition to contractor remediation probable costs, an additional approximately $35,000 would be needed to cover confirmation testing, report preparation and other LSP related costs. These estimated costs are summarized in Table 8.

5.0 LIMITATIONS

Our report has been performed subject to the following limitations:

1. The observations presented in this report were made under the conditions described herein. The conclusions presented are based solely upon the services described, and not on scientific tasks or procedures beyond the scope of the project. The work described in this report was carried out in accordance with the contract Terms and Conditions.
2. In preparing the report O'Reilly, Talbot, Okun & Associates, Inc. relied on certain information provided by federal, state and local officials and other parties referenced herein, and on information contained in the files of state or local regulatory agencies at the time of the file review. Although there may have been some degree of overlap in the information provided by these sources, O'Reilly, Talbot, Okun & Associates, Inc. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this assessment.
3. Observations were made of the Site and of the structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, we render no opinion as to the presence of hazardous materials or oil, or to the presence of indirect information relating to hazardous materials or oil in that portion of the Site. In addition, we render no opinion as to the presence of hazardous materials or oil, where direct observations of portions of the Site were obstructed by objects or coverings on or over these surfaces.
4. The purpose of this Report was to assess the physical characteristics of the Site with respect to the presence of hazardous material or oil in soil or groundwater at the Site. No specific attempt was made to check on the compliance of present or past owners or operators of the Site with federal, state, or local laws and regulations, environmental or otherwise.
5. Cost estimates were developed for material costs which were deemed to be potentially applicable at the Site. These estimates are preliminary. They are based upon published information and/or our experience at other sites. Actual costs may vary.

TABLES

Table 1
Soil Analytical Results- Collected by GES
Polycyclic Aromatic Hydrocarbons and Metals
Concentrations in mg/kg
Stow/Maple Street Site
Acton, MA

Sample No.:	MassDEP	Reportable	Meth 1 Stds		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7
Depth (feet):	Ash Fill	Conc.	S-1 /	S-1 /	(0-2)	(4-5)	(0-2)	(5-7.5)	(0-2)	(2-4)	(0-2)	(5-7.5)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Date Collected:	Background	RCS-1	GW-2	GW-3	4/29/10	4/29/10	4/29/10	4/29/10	4/29/10	4/29/10	4/29/10	4/29/10	4/30/10	4/30/10	4/30/10	4/30/10	4/30/10	4/30/10	4/30/10
Collected by:					GES	GES	GES	GES	GES	GES	GES	GES	GES	GES	GES	GES	GES	GES	GES
PID Reading (ppmv):	NA	NA	NA	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
EPH Fractions																			
C9-C18 Aliphatics	NA	1,000	1,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C19-C36 Aliphatics	NA	3,000	3,000	3,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C11-C22 Aromatics	NA	1,000	1,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAH Compounds																			
Naphthalene	1	4	40	500	0.319	<0.370	<0.290	<0.310	<0.290	<0.350	**54.5**	0.401	<0.310	0.813	<0.360	<0.340	<0.260	<0.380	<0.330
2-Methylnaphthalene	1	0.7	80	300	0.392	<0.370	<0.290	<0.310	<0.290	<0.350	**29.3**	<0.270	<0.310	<0.390	<0.360	<0.340	<0.260	<0.380	<0.330
Acenaphthylene	1	1	600	10	<0.310	<0.370	<0.290	<0.310	<0.290	<0.350	**3.8**	<0.270	<0.310	**1.80**	0.459	<0.340	<0.260	<0.380	<0.330
Acenaphthene	2	4	1,000	1,000	<0.310	<0.370	<0.290	<0.310	<0.290	<0.350	**57.1**	0.370	<0.310	0.968	<0.360	<0.340	<0.260	<0.380	<0.330
Fluorene	2	1,000	1,000	1,000	<0.310	<0.370	<0.290	<0.310	<0.290	<0.350	84.4	0.364	<0.310	1.370	<0.360	<0.340	<0.260	<0.380	<0.330
Phenanthrene	20	10	500	500	1.180	<0.370	<0.290	<0.310	<0.290	<0.350	**650.0**	2.970	<0.310	**18.80**	5.190	1.260	<0.260	<0.380	<0.330
Anthracene	4	1,000	1,000	1,000	<0.310	<0.370	<0.290	<0.310	<0.290	<0.350	172.0	0.711	<0.310	4.760	1.20	<0.340	<0.260	<0.380	<0.330
Fluoranthene	10	1,000	1,000	1,000	1.080	<0.370	<0.290	<0.310	0.531	<0.350	651.0	2.770	<0.310	35.70	11.0	1.30	<0.260	<0.380	<0.330
Pyrene	20	1,000	1,000	1,000	1.160	<0.370	<0.290	<0.310	0.451	<0.350	477.0	2.600	<0.310	30.50	8.970	1.140	<0.260	<0.380	<0.330
Benzo(a)anthracene	9	7	7	7	0.622	<0.370	<0.290	<0.310	<0.290	<0.350	**257.0**	1.230	<0.310	**15.40**	4.460	0.525	<0.260	<0.380	<0.330
Chrysene	7	70	70	70	0.926	<0.370	<0.290	<0.310	0.325	<0.350	**232.0**	1.150	<0.310	14.10	4.160	0.470	<0.260	<0.380	<0.330
Benzo(b)fluoranthene	8	7	7	7	0.786	<0.370	<0.290	<0.310	0.333	<0.350	**161.0**	0.788	<0.310	**13.60**	3.620	<0.340	<0.260	<0.380	<0.330
Benzo(k)fluoranthene	4	70	70	70	0.663	<0.370	<0.290	<0.310	<0.290	<0.350	**154.0**	0.835	<0.310	6.540	3.090	0.352	<0.260	<0.380	<0.330
Benzo(a)pyrene	7	2	2	2	0.407	<0.370	<0.290	<0.310	<0.290	<0.350	**194.0**	0.985	<0.310	**11.80**	**3.790**	0.406	<0.260	<0.380	<0.330
Indeno(1,2,3-cd)pyrene	3	7	7	7	0.359	<0.370	<0.290	<0.310	0.498	<0.350	**102.0**	0.528	<0.310	**8.410**	2.740	<0.340	<0.260	<0.380	<0.330
Dibenzo(a,h)anthracene	1	0.7	0.7	0.7	<0.310	<0.370	<0.290	<0.310	<0.290	<0.350	**25.1**	<0.270	<0.310	**2.580**	<0.360	<0.340	<0.260	<0.380	<0.330
Benzo(g,h,i)perylene	3	1,000	1,000	1,000	0.365	<0.370	<0.290	<0.310	0.834	<0.350	105.0	0.600	<0.310	8.830	3.270	<0.340	<0.260	<0.380	<0.330
Metals																			
Arsenic	20	20	20	20	**48.6**	5.2	12.3	5.2	**46.4**	9.9	**20.6**	4.2	5.7	8.9	6.0	3.6	3.2	6.7	7.0
Chromium (III)	40	1,000	1,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI or total)*	40	30	30	30	11.6	**31.8**	9.6	13.2	25.5	20.6	19.6	14.2	15.0	22.5	18.1	13.3	11.3	9.0	4.6
Lead	600	300	300	300	139	14.3	171	2.2	164	78.4	**361**	4.6	70.0	**935**	**462**	11.3	6.1	60.5	32.9
Zinc	300	2,500	2,500	2,500	22.5	34.7	25.8	27.7	79.1	52.0	66.6	28.6	76.7	215	137	40.9	16.3	107	20.0

NOTES:

1. Concentrations in mg/kg (parts per million) on a dry weight basis."PID"=Photoionization detector soil headspace measurement in parts per million by volume.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RC-S" = Reportable concentration from 310 CMR 40.1600.
4. MCP Method 1 soil standards from 310 CMR 40.0975(6).
5. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
6. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
7. Values shown in **bold** exceed Method 1 standards.
8. "---" indicates not analyzed for this parameter.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 2
Sediment/Wetland Soils Analytical Results - Collected by GES and OTO
Polycylic Aromatic Hydrocarbons (PAHs) and Metals
Concentrations in mg/kg
Stow/Maple Street Site
Acton, MA

Sample No.:	MassDEP	Reportable	Meth. 1 Stds.		Freshwater	SD-1	SD-2	SD-2	SD-3	SD-3	SD-4	SD-4
Depth (feet):	Ash Fill	Conc.	S-1 /	S-1 /	Sediment	(0-2)	(0-2)	(2-4)	(0-2)	(2-4)	(0-2)	(0-2)
Date Collected:	Background	RCS-1	GW-2	GW-3	Screening	4/30/10	4/30/10	4/30/10	4/30/10	4/30/10	4/30/10	9/1/10
Collected by:					Criteria	GES	GES	GES	GES	GES	GES	OTO
PID Reading (ppmv):	NA	NA	NA	NA	NA	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**
PAH Compounds												
Naphthalene	1	4	40	500	0.180	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	<0.140
2-Methylnaphthalene	1	0.7	80	300	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	<0.140
Acenaphthylene	1	1	600	10	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	0.150
Acenaphthene	2	4	1,000	1,000	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	<0.140
Fluorene	2	1,000	1,000	1,000	0.077	<0.700	<0.360	<0.320	<0.410	<0.340	**0.991**	**<0.140**
Phenanthrene	20	10	500	500	0.200	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**0.350**
Anthracene	4	1,000	1,000	1,000	0.057	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**0.150**
Fluoranthene	10	1,000	1,000	1,000	0.420	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**1.100**
Pyrene	20	1,000	1,000	1,000	0.200	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**0.810**
Benzo(a)anthracene	9	7	7	7	0.110	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**0.500**
Chrysene	7	70	70	70	0.170	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**0.320**
Benzo(b)fluoranthene	8	7	7	7	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	0.300
Benzo(k)fluoranthene	4	70	70	70	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	0.270
Benzo(a)pyrene	7	2	2	2	0.150	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**0.410**
Indeno(1,2,3-cd)pyrene	3	7	7	7	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	0.270
Dibenzo(a,h)anthracene	1	0.7	0.7	0.7	0.033	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	**<0.140**
Benzo(g,h,i)perylene	3	1,000	1,000	1,000	NS	<0.700	<0.360	<0.320	<0.410	<0.340	<0.850	0.290
Metals												
Arsenic	20	20	20	20	33	6.9	5.3	5.8	6.5	7.6	15.4	NA
Chromium (III)	40	1,000	1,000	1,000	NS	NA	NA	NA	NA	NA	NA	17
Chromium (VI or total)*	40	30	30	30	110	**141**	14.3	15.5	**55.1**	17.8	**70.6**	17
Lead	600	300	300	300	130	60.6	7.0	3.9	17.9	3.1	**156**	44
Zinc	300	2,500	2,500	2,500	460	28.1	19.5	15.5	23.5	19.1	189	NA
TOC	None	None	None	None	None	NA	NA	NA	NA	NA	NA	0.178%

NOTES:
1. Concentrations in mg/kg (parts per million) on a dry weight basis."PID"=Photoionization detector soil headspace measurement in parts per million by volume.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RC-S" = Reportable concentration from 310 CMR 40.1600.MCP Method 1 soil standards from 310 CMR 40.0975(6).
4. Ash background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
5. Sediment screening values from Janyuary 2006 Technical Update.
6. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
7. Values shown in **bold** exceed Method 1 standards.
8. "NA" indicates not applicable."NS" indicates no screening criteria established for this compound.

Table 3
Soil and Wetland Soils Analytical Results
Extractable Petroleum Hydrocarbons & Polynuclear Aromatic Hydrocarbons (EPH/PAHs)
Concentrations in mg/kg
Stow/Maple Street Site
Acton, MA

Sample No.:	MassDEP	Reportable	Meth 1 Stds		SS-2	SD-4	MW-4-S	MW-4-W	SS-8	SS-9	SS-3-N	SS-3-W	SS-3-S	SS-3-E	SS-2-N	SS-2-S	SS-2-E	SS-10
Depth (feet):	Ash Fill	Conc.	S-1 /	S-1 /	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Date Collected:	Background	RCS-1	GW-2	GW-3	1-Sep-10	1-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10
Collected by:					OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO
EPH Fractions																		
C9-C18 Aliphatics	NA	1,000	1,000	1,000	<19.3	--	--	--	--	--	--	--	--	--	--	--	--	--
C19-C36 Aliphatics	NA	3,000	3,000	3,000	<19.3	--	--	--	--	--	--	--	--	--	--	--	--	--
C11-C22 Aromatics	NA	1,000	1,000	1,000	656	--	--	--	--	--	--	--	--	--	--	--	--	--
PAH Compounds																		
Naphthalene	1	4	40	500	3.13	<0.140	0.85	28.0	4.5	4.9	9.9	2.4	<0.9	5.0	19.0	<0.98	7.3	<0.38
2-Methylnaphthalene	1	0.7	80	300	1.96	<0.140	<0.780	14.0	3.1	4.3	5.4	0.89	<0.9	2.6	7.2	<0.98	2.7	<0.38
Acenaphthylene	1	1	600	10	1.14	0.15	<0.780	**17.0**	2.4	5.3	9.8	6.8	<0.9	6.8	**32.0**	1.0	5.9	<0.38
Acenaphthene	2	4	1,000	1,000	6.57	<0.140	1.2	37.0	9.7	14.0	18.0	2.8	<0.9	<8.7	17.0	<0.98	6.9	<0.38
Fluorene	2	1,000	1,000	1,000	5.91	<0.140	1.6	38.0	8.6	13.0	18.0	3.4	<0.9	8.0	22.0	<0.98	8.0	<0.38
Phenanthrene	20	10	500	500	89.6	0.35	14.0	440.0	110.0	190.0	190.0	4.8	1.6	110.0	280.0	6.8	82.0	<0.38
Anthracene	4	1,000	1,000	1,000	13.6	0.15	3.4	120.0	21.0	33.0	47.0	14.0	<0.9	20.0	66.0	2.0	22.0	<0.38
Fluoranthene	10	1,000	1,000	1,000	96.0	1.1	**13.0**	480.0	110.0	220.0	220.0	9.5	3.4	72.0	380.0	11.0	92.0	<0.38
Pyrene	20	1,000	1,000	1,000	87.4	0.81	11.0	390.0	120.0	250.0	200.0	81.0	2.9	110.0	320.0	8.9	71.0	<0.38
Benzo(a)anthracene	9	7	7	7	**30.0**	0.5	5.3	**180.0**	**45.0**	**92.0**	**90.0**	**40.0**	1.6	**48.0**	**150.0**	4.9	**38.0**	<0.38
Chrysene	7	70	70	70	32.9	0.32	4.9	**160.0**	48.0	**110.0**	**90.0**	37.0	1.7	51.0	**140.0**	4.9	38.0	<0.38
Benzo(b)fluoranthene	8	7	7	7	**24.7**	0.3	5.6	**200.0**	**47.0**	**89.0**	**100.0**	**44.0**	1.9	**34.0**	**160.0**	5.5	**47.0**	<0.38
Benzo(k)fluoranthene	4	70	70	70	16.6	0.27	2.4	44.0	16.0	26.0	20.0	13.0	<0.9	14.0	39.0	2.0	15.0	<0.38
Benzo(a)pyrene	7	2	2	2	**24.3**	0.41	**4.6**	**160.0**	**38.0**	**78.0**	**81.0**	**34.0**	1.4	**42.0**	**130.0**	**4.1**	**34.0**	<0.38
Indeno(1,2,3-cd)pyrene	3	7	7	7	**15.1**	0.27	**3.2**	**120.0**	**20.0**	**51.0**	**58.0**	**22.0**	1.2	**25.0**	**98.0**	3.4	**28.0**	<0.38
Dibenzo(a,h)anthracene	1	0.7	0.7	0.7	**3.30**	<0.140	0.64	**27.0**	**4.5**	**13.0**	**10.0**	**4.8**	<0.54	**5.6**	**24.0**	**0.76**	5.6	<0.23
Benzo(g,h,i)perylene	3	1,000	1,000	1,000	13.2	0.29	2.9	98.0	18.0	47.0	32.0	18.0	0.96	22.0	85.0	2.9	**23.0**	<0.38

NOTES:

1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RC-S" = Reportable concentration from 310 CMR 40.1600.
4. MCP Method 1 soil standards from 310 CMR 40.0975(6).
5. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
6. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
7. Values shown in **bold** exceed Method 1 standards.
8. "--" indicates not analyzed for this parameter.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 4
Soil Analytical Results
Metals Concentrations in mg/kg
Stow/Maple Street Site
Acton, MA

Sample No.:	MassDEP	Reportable	Meth 1 Stds		MW-4-S	MW-4-W	SS-8	SS-9	MW-3	MW-3-S	MW-3-E	MW-3-N	MW-3-W	SS-3-N
Depth (feet):	Ash Fill	Conc.	S-1 /	S-1 /	(0-2)	(0-2)	(0-2)	(0-2)	(0-1)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Date Collected:	Background	RCS-1	GW-2	GW-3	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10
Collected by:					OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO
Metals														
Arsenic	20	20	20	20	5.3	**24**	--	--	**140**	11	**140**	12	17	--
Chromium (III)	40	1,000	1,000	1,000	--	--	--	--	--	--	--	--	--	--
Chromium (VI)*	40	30	30	30	--	--	--	--	--	--	--	--	--	--
Chromium (total)*	40	30	30	30	--	--	--	--	--	--	--	--	--	--
Lead	600	300	300	300	120	**470**	260	**380**	--	--	--	--	--	**1,800**
Zinc	300	2,500	2,500	2,500	--	--	--	--	--	--	--	--	--	--

NOTES:

1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RC-S" = Reportable concentration from 310 CMR 40.1600.
4. MCP Method 1 soil standards from 310 CMR 40.0975(6).
5. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
6. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
7. Values shown in **bold** exceed Method 1 standards.
8. "--" indicates not analyzed for this parameter.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 4 - Continued
Soil Analytical Results
Metals Concentrations in mg/kg
Stow/Maple Street Site
Acton, MA

Sample No.:	MassDEP	Reportable	Meth 1 Stds		SS-3-W	SS-3-S	SS-3-E	SS-2-N	SS-2-S	SS-2-E	MW-1	MW-1	MW-1-N	MW-1-S	MW-1-W	SS-10
Depth (feet):	Ash Fill	Conc.	S-1 /	S-1 /	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-1)	(4-5)	(0-2)	(0-2)	(0-2)	(0-2)
Date Collected:	Background	RCS-1	GW-2	GW-3	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	1-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10	2-Sep-10
Collected by:					OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO
Metals																
Arsenic	20	20	20	20	--	--	--	--	--	--	**60**	--	**50**	**39**	**30**	--
Chromium (III)	40	1,000	1,000	1,000	--	--	--	--	--	--	--	--	--	--	--	--
Chromium (VI)*	40	30	30	30	--	--	--	--	--	--	--	<0.95	--	--	--	--
Chromium (total)*	40	30	30	30	--	--	--	--	--	--	--	**39**	--	--	--	--
Lead	600	300	300	300	**490**	230	**360**	**1,000**	**1,000**	**830**	--	--	--	--	--	96
Zinc	300	2,500	2,500	2,500	--	--	--	--	--	--	--	--	--	--	--	--

NOTES:

1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RC-S" = Reportable concentration from 310 CMR 40.1600.
4. MCP Method 1 soil standards from 310 CMR 40.0975(6).
5. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
6. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
7. Values shown in **bold** exceed Method 1 standards.
8. "--" indicates not analyzed for this parameter.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 5
Sediment/ Wetland Soil Analytical Results
Metals Concentrations in mg/kg
Stow/Maple Street Site
Acton, MA

Sample No.:	MassDEP	Sediment	Meth 1 Stds		SD - 1	SD-1-N	SD-1-S	SD-1-E	SD-1-W	SD-3	SD-4	SD-4-N	SD-4-S	SD-4-W
Depth (feet):	Ash Fill	Screening	S-1 /	S-1 /	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Date Collected:	Background	Criteria	GW-2	GW-3	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10	1-Sep-10
Collected by:					OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO	OTO
Metals														
Arsenic	20	33	20	20	--	--	--	--	--	--	--	--	--	--
Chromium (III)	40	110	1,000	1,000	--	--	--	--	--	--	--	--	--	--
Chromium (VI)*	40	110	30	30	<1.1	--	--	--	--	<1.2	<1.7	--	--	--
Chromium (total)*	40	110	30	30	29	20	28	**66**	16	15	17	--	--	--
Lead	600	130	300	300	--	--	--	--	--	--	44	48	69	23
Zinc	300	460	2,500	2,500	--	--	--	--	--	--	--	--	--	--

NOTES:

1. Concentrations in mg/kg (parts per million) on a dry weight basis.
2. "<" indicates not detected; value is sample-specific quantitation limit.
3. "RC-S" = Reportable concentration from 310 CMR 40.1600.
4. MCP Method 1 soil standards from 310 CMR 40.0975(6).
5. Background values from MassDEP "Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil", May 23, 2002.
6. Only analytes detected in at least one sample are shown; refer to laboratory reports for full analyte listing.
7. Values shown in **bold** exceed Method 1 standards.
8. "--" indicates not analyzed for this parameter.

* Per the 4/06 MCP, chromium is assumed to be hexavalent unless testing is done to prove otherwise.

Table 6
Analytical Results of Supplemental Shallow Soil Sampling and Analysis
(Total Metal Concentrations in mg/Kg)

Sample	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20
Depth (feet)	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Total Arsenic	7	7.6	6.9	5.6	8	6.8	13	8.1	6.3	8.7
Total Lead	50	62	14	17	47	20	21	120	190	130

Sample	SS-21	SS-22	SS-23	SS-24	SS-25	SS-26	SS-27	SS-28	SS-29	SS-30
Depth (feet)	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Total Arsenic	7	12	13	5.9	**200**	11	14	9	**21**	**29**
Total Lead	75	230	230	51	**530**	49	**5700**	**750**	140	**3200**

Notes:
1. Bolded values exceed MCP S-1 Method 1 Standards.
2. Sample locations shown on Figure 2.1

Table 7
Analytical Results of TCLP Testing
(Extractable Metal Concentrations in mg/l)

Sample	Composite 1	Composite 2	Composite 3	TCLP Criteria
Arsenic	< 1.0	< 1.0	< 0.01	5
Lead	< 0.5	0.71	1.2	5

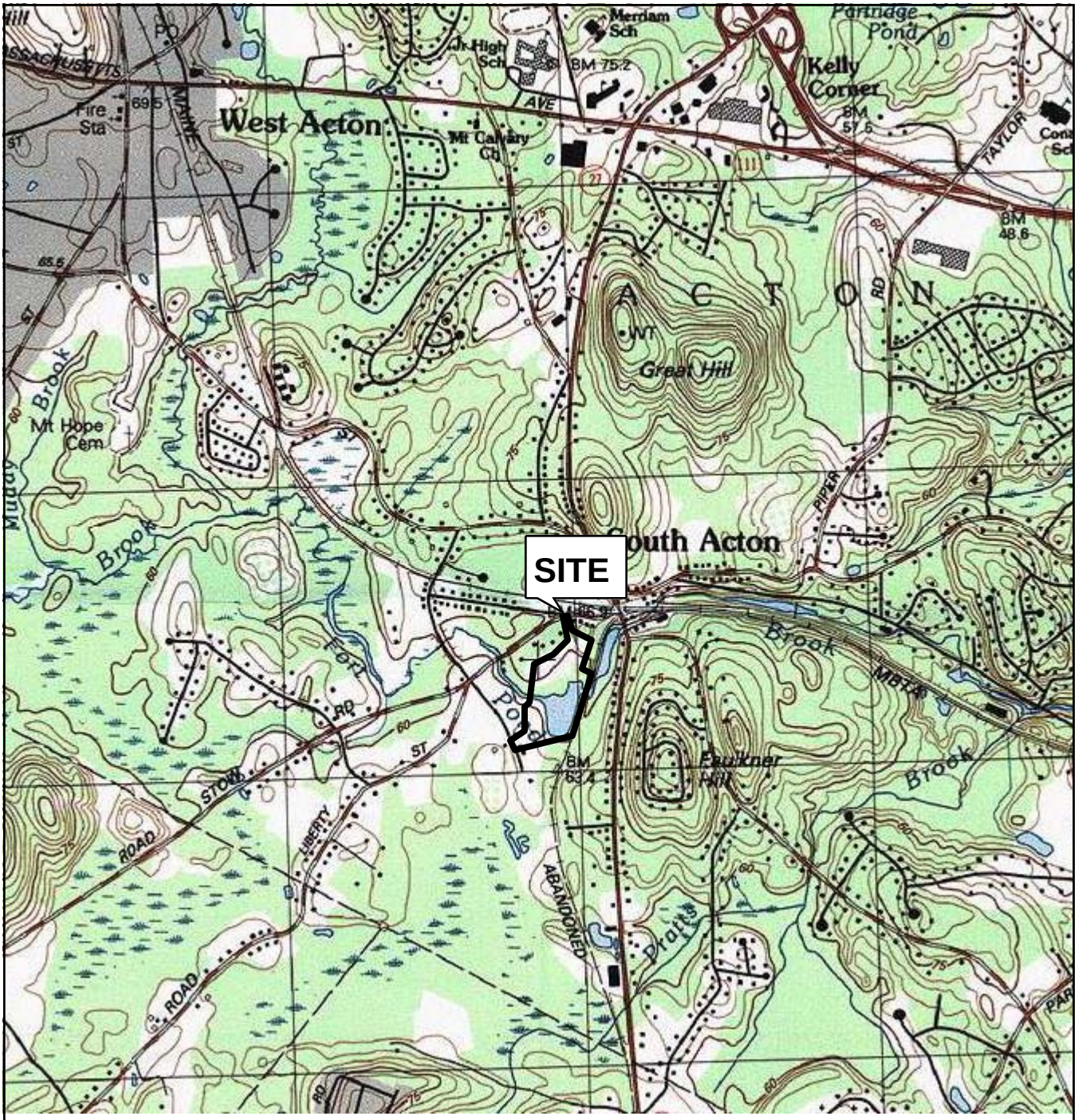
Notes:
1. Values greater than TCLP criteria indicate that a waste made up of this material may be a hazardous waste.

Table 8
Estimates of Probable Remediation Costs

Item	Estimated Cost
1) Excavation, Transportation and Disposal 380 tons of PAH Soils	$38,000
2) Excavation, Transportation and Disposal 280 tons of arsenic soils	$28,000
3) Excavation, Transportation and Disposal 300 tons arsenic/lead soil	$30,000
4) Testing, Engineering and LSP Fee	$35,000
Total	$131,000

Notes:
1. Estimated costs should be considered approximate and not actual prices to complete the tasks identified.

FIGURES



O'Reilly, Talbot & Okun

[A S S O C I A T E S]

ENGINEERING

2 Stow Street & 90 Martin Street Properties
Acton, Massachusetts

SITE LOCUS

March, 2010 Figure 1

STONEFIELD FARM

MARTIN STREET

RESIDENTIAL

RESIDENCE

FARMLAND

90 MARTIN ST. PARCEL

RESIDENTIAL

FARMLAND

GARAGE
(FORMER ICE HOUSE)

MILL POND

SEE FIGURES 3 – 5 FOR
SOIL SAMPLE LOCATIONS

FARMLAND

2 STOW ST. PARCEL

FARMLAND

RESIDENTIAL

STOW STREET

RESIDENTIAL

MAPLE STREET

FORMER MOORE & BURGESS CO.
AND MOROCCO FACTORY

FARMLAND

FORMER
LOCOMOTIVE
HOUSE

FORMER COAL PILE

FORMER TURNTABLE
(ROUNDHOUSE)

FORMER B&M RAILROAD

MILL POND

N

o.r.o.

LEGEND:

PROPERTY LINE

ABUTTING PROPERTY LINE

NOTES:

SITE PLAN DEVELOPED FROM A 9/14/09 PLOT PLAN OF THE PROPERTY BY FORESITE ENGINEERING, DATED 9/14/09; FROM A PROGRESS PRINT OF THE PROPERTY BY STAMSKI AND MCNARY, INC., DATED 5/19/10; FROM ONLINE ASSESSORS MAPS, FROM HISTORIC SANBORN FIRE INSURANCE MAPS AND FROM TAPED FIELD MEASUREMENTS.

DESIGNED BY: BHN
CHECKED BY: BHN
DRAWN BY: APR
DATE: OCTOBER 2010

SCALE IN FEET
1"= 120'
0' 60' 120' 240'

CAOUETTE PROPERTY
90 MARTIN & 2 STOW STREETS
ACTON, MASSACHUSETTS

SITE PLAN

PROJECT No.
0022–23–02

FIGURE No.
2

Cadd FILE No. J0022–23–01, CAOUETTE PROPERTY, STOW & MARTIN STREETS, ACTON, MA

SS-11
SS-12
SS-13
SS-14
SS-15
SS-16
SS-17
SS-18
SS-19
SS-20
SS-21
SS-22
SS-23
SD-1-W
SD-1
SD-1-S
SD-1-N
SD-1-E
MW-3-W
MW-3-S
MW-3
MW-3-N
MW-3-E
SS-24
SS-25
SS-5
SD-2
SS-26
APPROXIMATE BOUNDARIES OF FORMER MOROCCO FACTORY / MOORE & BURGESS WEBBING COMPANY
SS-1
SS-29
MW-2
SS-30
SS-27
SS-28
FENCED AREAS SURROUNDING ELEVATED CONCENTRATIONS OF ARSENIC IN SOIL
MW-4-W
SS-4
MW-4
MW-4-S
SD-3
SS-6
SS-10
SS-3-W
SS-3-S
SS-3
SS-8
SS-3-N
SS-3-E
FORMER LOCOMOTIVE HOUSE
SS-2
SS-2-S
SS-2-N
SS-9
SS-2-E
SS-7
MW-1-W
MW-1-S
MW-1
MW-1-N
SD-4-W
SD-4
SD-4-S
SD-4-N
FORMER COAL PILE

LEGEND:

- PROPERTY LINE
- MONITORING WELL INSTALLED BY GES
- SOIL SAMPLES COLLECTED BY GES
- WETLAND SOIL SAMPLE COLLECTED BY GES
- SOIL SAMPLES COLLECTED BY OTO
- WETLAND SOIL SAMPLE COLLECTED BY OTO

NOTES:
SITE PLAN DEVELOPED FROM A 9/14/09 PLOT PLAN OF THE PROPERTY BY FORESITE ENGINEERING, DATED 9/14/09; FROM A PROGRESS PRINT OF THE PROPERTY BY STAMSKI AND MCNARY, INC., DATED 5/19/10; FROM ONLINE ASSESSORS MAPS, FROM HISTORIC SANBORN FIRE INSURANCE MAPS AND FROM TAPED FIELD MEASUREMENTS.

DESIGNED BY: BHN
CHECKED BY: BHN
DRAWN BY: APR
DATE: OCTOBER 2010

SCALE IN FEET
1" = 30'
0' 15' 30' 60'

CAOUETTE PROPERTY
90 MARTIN & 2 STOW STREETS
ACTON, MASSACHUSETTS

SAMPLE LOCATION PLAN WITH FENCED AREAS SHOWN

PROJECT No.
0022-23-02

FIGURE No.
3

Cadd FILE No. J0022-23-01, CAOUETTE PROPERTY, STOW & MARTIN STREETS, ACTON, MA

Cadd FILE No. J0022-23-01, CAOUETTE PROPERTY, STOW & MARTIN STREETS, ACTON, MA

LEGEND:

PROPERTY LINE

MONITORING WELL INSTALLED BY GES, VALUES IN RED INDICATES ARSENIC AND/OR LEAD EXCEEDS METHOD 1 S-1/GW-2 GW-3 SOIL STANDARDS.

SOIL SAMPLES COLLECTED BY GES, VALUES IN RED INDICATES ARSENIC AND/OR LEAD EXCEEDS METHOD 1 S-1/GW-2 GW-3 SOIL STANDARDS.

WETLAND SOIL SAMPLE COLLECTED BY GES

SOIL SAMPLES COLLECTED BY OTO, VALUES IN RED INDICATES ARSENIC AND/OR LEAD EXCEEDS METHOD 1 S-1/GW-2 GW-3 SOIL STANDARDS.

WETLAND SOIL SAMPLE COLLECTED BY OTO

7.0 TOTAL ARSENIC CONCENTRATION (SURFICIAL SOILS) IN mg/kg (PPM). IF NO VALUE IS SHOWN, SAMPLE WAS NOT ANALYZED FOR ARSENIC.

293 TOTAL LEAD CONCENTRATION (SURFICIAL SOILS) IN mg/kg (PPM). IF NO VALUE IS SHOWN, SAMPLE WAS NOT ANALYZED FOR LEAD.

SD-1-W
SD-1
SD-1-S 6.9 60.6
SD-1-N
SD-1-E

SD-2 5.3 7.0

SD-3 6.5 17.9

SD-4-S 69
SD-4-W 23
SD-4 15.4 156
SD-4-N 48

SS-5 3.2 6.1

SS-11 7.0 50
SS-12 7.6 62
SS-13 6.9 14
SS-14 5.6 17
SS-15 8.0 47
SS-16 6.8 20
SS-17 13 21
SS-18 8.1 120
SS-19 6.3 190
SS-20 8.7 130
SS-21 7.0 75
SS-22 12 230
SS-23 13 230
SS-24 5.9 51
SS-25 200 530
SS-26 11 49
SS-27 14 5700
SS-28 9.0 750
SS-29 21 140
SS-30 29 3200
SS-1 5.7 70.0
SS-2-S 8.9
SS-2-E 830
SS-2-N 935 1,000
SS-3-S 230
SS-3 6.0 462
SS-3-E 360
SS-3-N 1,800
SS-3-W 490
SS-4 3.6 11.3
SS-6 6.7 60.5
SS-7 7.0 32.9
SS-8 260
SS-9 380
SS-10 96

MW-1-S 39
MW-1 60 139
MW-1-W 30
MW-1-N 50
MW-2 12.3 171
MW-3 140 164
MW-3-S 11
MW-3-W 17
MW-3-N 12
MW-3-E 140
MW-4 361
MW-4-S 5.3 120
MW-4-W 24 470

20.6

1,000

FORMER COAL PILE

FORMER LOCOMOTIVE HOUSE

APPROXIMATE BOUNDARIES OF FORMER MOROCCO FACTORY / MOORE & BURGESS WEBBING COMPANY

N.T.S.

FIGURE No. 4	PROJECT No. 0022-23-02	CAOUETTE PROPERTY 90 MARTIN & 2 STOW STREETS ACTON, MASSACHUSETTS	
		SAMPLE LOCATIONS SHOWING ARSENIC AND LEAD RESULTS	SCALE IN FEET 1"= 30' 0' 15' 30' 60'

DESIGNED BY: BHN DRAWN BY: APR
CHECKED BY: BHN DATE: OCTOBER 2010

SD-1-W
SD-1
SD-1-S
SD-1-N
SD-1-E
SS-21
SS-22
SS-23
MW-3-W
SS-24
MW-3-S
MW-3
MW-3-N
MW-3-E
SS-5
SS-25
SS-26
APPROXIMATE BOUNDARIES OF FORMER MOROCCO FACTORY / MOORE & BURGESS WEBBING COMPANY
SS-1
SD-2
SS-29
MW-2
SS-30
SS-27
SS-28
MW-4-W
ESTIMATED AREA OF PAH IMPACTED SOILS
SS-4
MW-4
MW-4-S
SD-3
SS-3-W
SS-6
SS-10
SS-3-S
SS-8
SS-3
SS-3-N
SS-3-E
FORMER LOCOMOTIVE HOUSE
SS-2-S
SS-2
SS-2-N
SS-9
SS-2-E
SS-7
MW-1-W
MW-1-S
MW-1
MW-1-N
SD-4-W
SD-4
SD-4-S
SD-4-N
FORMER COAL PILE

LEGEND:

- PROPERTY LINE
- MONITORING WELL INSTALLED BY GES, VALUES IN GREEN INDICATE PAHS EXCEED METHOD 1 S-1/GW-2 GW-3 SOIL STANDARDS.
- SOIL SAMPLES COLLECTED BY GES, VALUES IN GREEN INDICATE PAHS EXCEED METHOD 1 S-1/GW-2 GW-3 SOIL STANDARDS.
- WETLAND SOIL SAMPLE COLLECTED BY GES
- SOIL SAMPLES COLLECTED BY OTO, VALUES IN GREEN INDICATE PAHS EXCEED METHOD 1 S-1/GW-2 GW-3 SOIL STANDARDS.
- WETLAND SOIL SAMPLE COLLECTED BY OTO

DRAWN BY: APR
DATE: OCTOBER 2010
DESIGNED BY: BHN
CHECKED BY: BHN

SCALE IN FEET
1" = 20'
0' 10' 20' 40'

CAOUETTE PROPERTY
90 MARTIN & 2 STOW STREETS
ACTON, MASSACHUSETTS

SAMPLE LOCATIONS SHOWING PAH EXCEEDANCES

PROJECT No.
0022-23-01

FIGURE No.
5

Cadd FILE No. J0022-23-01, CAOUETTE PROPERTY, STOW & MARTIN STREETS, ACTON, MA

APPENDIX A

ANALYTICAL REPORT

Lab Number:	L1013542
Client:	O'Reilly, Talbot & Okun Associates 19 West Main Street Westboro, MA 01581
ATTN:	Bruce Nickelsen
Phone:	(508) 366-6409
Project Name:	STOW ST
Project Number:	0022-23-02
Report Date:	09/10/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1013542-01	MW-4 (0-2)	ACTON, MA	09/01/10 12:00
L1013542-02	SS-2 (0-2)	ACTON, MA	09/01/10 12:15
L1013542-03	MW-1 (4-5)	ACTON, MA	09/01/10 12:45

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013542
Report Date: 09/10/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	NO
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

At the client's request, sample "MW-4 (0-2)" was placed on hold.

Sample Receipt

In reference to question A:

The analysis of Hexavalent Chromium was not performed from a separate container that remained unopened until the alkaline digestion commenced.

In reference to question H:

Matrix Spikes were not submitted for the analyses of Metals and Hexavalent Chromium.

Project Name:	STOW ST	**Lab Number:**	L1013542
Project Number:	0022-23-02	**Report Date:**	09/10/10

Case Narrative (continued)

EPH

L1013542-02 has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the elevated concentrations of target compounds in the sample.

L1013542-02 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The surrogate recovery for L1013542-02 is outside the acceptance criteria for o-Terphenyl (307%); however, the sample was not re-extracted due to coelution with obvious interferences. A copy of the chromatogram is included as an attachment to this report. The results are not considered to be biased.

Metals

LCS/LCSD SRM Lot# ERA D067-540

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

Chromium, Hexavalent

LCS/LCSD SRM Lot#: ERA D062-921

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/10/10

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013542
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID:	L1013542-02	Date Collected:	09/01/10 12:15
Client ID:	SS-2 (0-2)	Date Received:	09/01/10
Sample Location:	ACTON, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	98,EPH-04-1.1	Extraction Date:	09/07/10 17:55
Analytical Date:	09/08/10 23:21	Cleanup Method1:	EPH-04-1
Analyst:	MW	Cleanup Date1:	09/08/10
Percent Solids:	68%		

Quality Control Information

Condition of sample received:	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Sample Extraction method:	Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	ND		mg/kg	19.3	--	2
C19-C36 Aliphatics	ND		mg/kg	19.3	--	2
Naphthalene	3.13		mg/kg	0.966	--	2
2-Methylnaphthalene	1.96		mg/kg	0.966	--	2
Acenaphthylene	1.14		mg/kg	0.966	--	2
Acenaphthene	6.57		mg/kg	0.966	--	2
Fluorene	5.91		mg/kg	0.966	--	2
Phenanthrene	83.6	E	mg/kg	0.966	--	2
Anthracene	13.6		mg/kg	0.966	--	2
Fluoranthene	87.3	E	mg/kg	0.966	--	2
Pyrene	78.4	E	mg/kg	0.966	--	2
Benzo(a)anthracene	30.0		mg/kg	0.966	--	2
Chrysene	32.9		mg/kg	0.966	--	2
Benzo(b)fluoranthene	24.7		mg/kg	0.966	--	2
Benzo(k)fluoranthene	16.6		mg/kg	0.966	--	2
Benzo(a)pyrene	24.3		mg/kg	0.966	--	2
Indeno(1,2,3-cd)Pyrene	15.1		mg/kg	0.966	--	2
Dibenzo(a,h)anthracene	3.30		mg/kg	0.966	--	2
Benzo(ghi)perylene	13.2		mg/kg	0.966	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	73		40-140
o-Terphenyl	**307**	Q	40-140
2-Fluorobiphenyl	89		40-140
2-Bromonaphthalene	89		40-140

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013542
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID:	L1013542-02	D	Date Collected:	09/01/10 12:15
Client ID:	SS-2 (0-2)		Date Received:	09/01/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	98,EPH-04-1.1		Extraction Date:	09/07/10 17:55
Analytical Date:	09/09/10 17:03		Cleanup Method1:	EPH-04-1
Analyst:	MW		Cleanup Date1:	09/08/10
Percent Solids:	68%			

Quality Control Information

Condition of sample received:	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Sample Extraction method:	Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C11-C22 Aromatics	1140		mg/kg	96.6	--	10
C11-C22 Aromatics, Adjusted	656		mg/kg	96.6	--	10
Phenanthrene	89.6		mg/kg	4.83	--	10
Fluoranthene	96.0		mg/kg	4.83	--	10
Pyrene	87.4		mg/kg	4.83	--	10

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 98,EPH-04-1.1
Analytical Date: 09/08/10 22:34
Analyst: MW

Extraction Method: EPA 3546
Extraction Date: 09/07/10 17:55
Cleanup Method1: EPH-04-1
Cleanup Date1: 09/08/10

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 02 Batch: WG431276-1					
C9-C18 Aliphatics	ND		mg/kg	6.67	--
C19-C36 Aliphatics	ND		mg/kg	6.67	--
C11-C22 Aromatics	ND		mg/kg	6.67	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.67	--
Naphthalene	ND		mg/kg	0.333	--
2-Methylnaphthalene	ND		mg/kg	0.333	--
Acenaphthylene	ND		mg/kg	0.333	--
Acenaphthene	ND		mg/kg	0.333	--
Fluorene	ND		mg/kg	0.333	--
Phenanthrene	ND		mg/kg	0.333	--
Anthracene	ND		mg/kg	0.333	--
Fluoranthene	ND		mg/kg	0.333	--
Pyrene	ND		mg/kg	0.333	--
Benzo(a)anthracene	ND		mg/kg	0.333	--
Chrysene	ND		mg/kg	0.333	--
Benzo(b)fluoranthene	ND		mg/kg	0.333	--
Benzo(k)fluoranthene	ND		mg/kg	0.333	--
Benzo(a)pyrene	ND		mg/kg	0.333	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.333	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.333	--
Benzo(ghi)perylene	ND		mg/kg	0.333	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	78		40-140
o-Terphenyl	98		40-140
2-Fluorobiphenyl	91		40-140
2-Bromonaphthalene	102		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013542

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02 Batch: WG431276-2 WG431276-3								
C9-C18 Aliphatics	72		82		40-140	13		25
C19-C36 Aliphatics	89		96		40-140	8		25
C11-C22 Aromatics	84		89		40-140	6		25
Naphthalene	76		92		40-140	19		25
2-Methylnaphthalene	80		97		40-140	19		25
Acenaphthylene	74		93		40-140	23		25
Acenaphthene	78		92		40-140	16		25
Fluorene	78		87		40-140	11		25
Phenanthrene	83		93		40-140	11		25
Anthracene	78		88		40-140	12		25
Fluoranthene	81		86		40-140	6		25
Pyrene	80		88		40-140	10		25
Benzo(a)anthracene	76		79		40-140	4		25
Chrysene	78		82		40-140	5		25
Benzo(b)fluoranthene	75		76		40-140	1		25
Benzo(k)fluoranthene	77		80		40-140	4		25
Benzo(a)pyrene	68		74		40-140	8		25
Indeno(1,2,3-cd)Pyrene	74		76		40-140	3		25
Dibenzo(a,h)anthracene	72		73		40-140	1		25
Benzo(ghi)perylene	72		75		40-140	4		25
Nonane (C9)	60		70		30-140	15		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013542

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 02 Batch: WG431276-2 WG431276-3								
Decane (C10)	69		80		40-140	15		25
Dodecane (C12)	75		86		40-140	14		25
Tetradecane (C14)	79		90		40-140	13		25
Hexadecane (C16)	84		94		40-140	11		25
Octadecane (C18)	89		96		40-140	8		25
Nonadecane (C19)	91		98		40-140	7		25
Eicosane (C20)	90		96		40-140	6		25
Docosane (C22)	90		97		40-140	7		25
Tetracosane (C24)	92		98		40-140	6		25
Hexacosane (C26)	91		97		40-140	6		25
Octacosane (C28)	89		95		40-140	7		25
Triacontane (C30)	92		98		40-140	6		25
Hexatriacontane (C36)	88		95		40-140	8		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	83		82		40-140
o-Terphenyl	86		83		40-140
2-Fluorobiphenyl	78		79		40-140
2-Bromonaphthalene	85		81		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

METALS

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013542
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013542-03
Client ID: MW-1 (4-5)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 84%

Date Collected: 09/01/10 12:45
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	39		mg/kg	0.47	--	1	09/07/10 14:30	09/08/10 16:56	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013542
Report Date: 09/10/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 03 Batch: WG431310-1										
Chromium, Total	ND		mg/kg	0.40	--	1	09/07/10 14:30	09/08/10 10:16	97,6010B	MG

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013542

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 03 Batch: WG431310-2 WG431310-3								
Chromium, Total	95		95		80-120	0		30

INORGANICS
&
MISCELLANEOUS

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013542-02
Client ID: SS-2 (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 12:15
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	68		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013542-03
Client ID: MW-1 (4-5)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 12:45
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/kg	0.95	--	1	09/07/10 18:00	09/09/10 16:00	97,7196A	JT
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW
pH	4.4		SU	-	NA	1	-	09/01/10 18:26	1,9045C	JW
Oxidation/Reduction Potential	340		mv	10	NA	1	-	09/01/10 21:06	68,1498	JW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab for sample(s): 03 Batch: WG431323-1										
Chromium, Hexavalent	ND		mg/kg	0.80	--	1	09/07/10 18:00	09/09/10 16:00	97,7196A	JT

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013542

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG430625-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG430626-1								
Oxidation/Reduction Potential	101		-			-		
MCP General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG431323-2 WG431323-3								
Chromium, Hexavalent	91		89		71-130	2		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG430625-2 QC Sample: L1013537-01 Client ID: DUP Sample						
pH	11	11.2	SU	2		5
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG430626-2 QC Sample: L1013537-01 Client ID: DUP Sample						
Oxidation/Reduction Potential	100	100	mv	0		
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG430683-1 QC Sample: L1012962-18 Client ID: DUP Sample						
Solids, Total	78	77	%	1		20
MCP General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG431323-4 QC Sample: L1013542-03 Client ID: MW-1 (4-5)						
Chromium, Hexavalent	ND	ND	mg/kg	NC		35

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013542
Report Date: 09/10/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1013542-01A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	HOLD(14)
L1013542-02A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	TS(7),EPH-DELUX-10(14)
L1013542-03A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180)
L1013542-03B	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	ORP-9045(1),MCP-HEXCR7196-10(30),TS(7),PH-9045(1)

*Values in parentheses indicate holding time in days

Project Name:	STOW ST	**Lab Number:**	L1013542
Project Number:	0022-23-02	**Report Date:**	09/10/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	STOW ST	**Lab Number:**	L1013542
Project Number:	0022-23-02	**Report Date:**	09/10/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	STOW ST	**Lab Number:**	L1013542
Project Number:	0022-23-02	**Report Date:**	09/10/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

68 Annual Book of ASTM (American Society for Testing and Materials) Standards following extraction by SW-846 EPA Method 9045C under the requirements of MADEP BWSC, WSC-CAM-VIB. August 2004.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Serial No:09101010:24

Date Rec'd in Lab: 9/1/10

ALPHA Job #: L1013542

Client Information

Client: O'Reilly Talbot & Okun
Address: 19 W. Main St. #205
Westboro MA 01581
Phone: 508-366-6409
Fax: 508-366-9826
Email: nickelsen@oto-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Bruce Nickelsen
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 9/9/10 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:
Bill to Springfield

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
MA MCP	S-1

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: EPH deluxe; total chromium; hexavalent chromium

SAMPLE HANDLING
Filtration
☐ Done ☒ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	EPH deluxe	total chromium	hexavalent chromium	Sample Specific Comments	TOTAL # BOTTLES
13542 1	MW-4 (0-2)	9/1/10	12:00	S	BHN	X				1
2	SS-2 (0-2)	9/1/10	12:15	S	BHN	X				1
3	MW-1 (4-5)	9/1/10	12:45	S	BHN		X	X		2

Container Type	A	A
Preservative	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

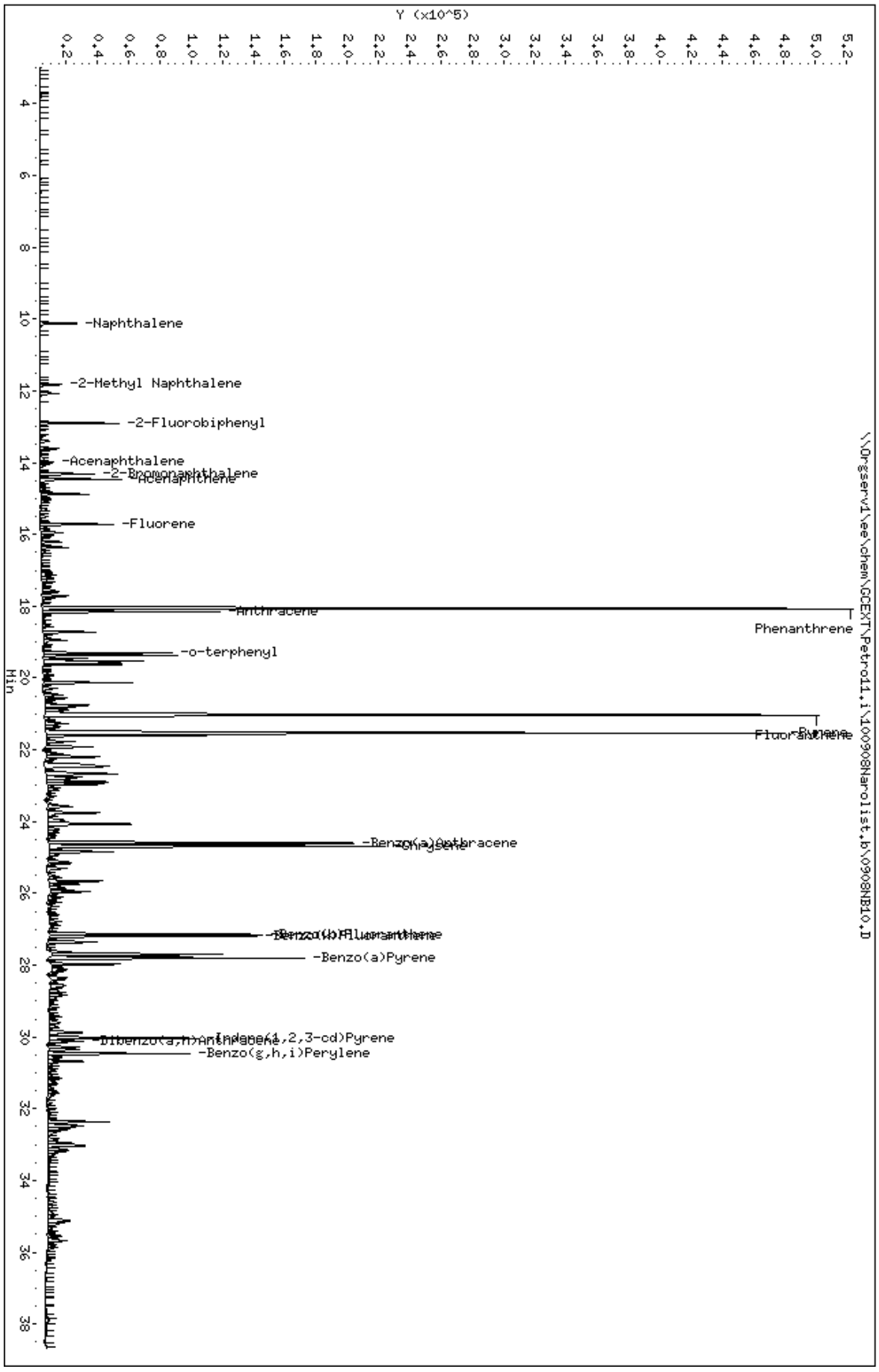
Relinquished By:	Date/Time	Received By:	Date/Time
	9/1/10 17:20		9/1/10 17:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

Data File: \\Orgserv1\ee\chem\GCEXT\Petro11.i\100908Narolist.b\0908NB10.D
Date : 08-SEP-2010 23:21
Client ID:
Sample Info: 11013542-02,42, fv2
Column phase:

Instrument: Petro11.i
Operator: mw
Column diameter: 0.53



ANALYTICAL REPORT

Lab Number:	L1013543
Client:	O'Reilly, Talbot & Okun Associates 19 West Main Street Westboro, MA 01581
ATTN:	Bruce Nickelsen
Phone:	(508) 366-6409
Project Name:	STOW ST
Project Number:	0022-23-02
Report Date:	09/10/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1013543-01	OTO-SD-1 (0-2)	ACTON, MA	09/01/10 11:55
L1013543-02	OTO-SD-1-N (0-2)	ACTON, MA	09/01/10 12:08
L1013543-03	OTO-SD-1-S (0-2)	ACTON, MA	09/01/10 12:16
L1013543-04	OTO-SD-1-E (0-2)	ACTON, MA	09/01/10 12:30
L1013543-05	OTO-SD-1-W (0-2)	ACTON, MA	09/01/10 12:23
L1013543-06	OTO-SD-3- (0-2)	ACTON, MA	09/01/10 13:31
L1013543-07	OTO-SD-4- (0-2)	ACTON, MA	09/01/10 13:45
L1013543-08	OTO-SD-4-N (0-2)	ACTON, MA	09/01/10 14:13
L1013543-09	OTO-SD-4-S (0-2)	ACTON, MA	09/01/10 14:15
L1013543-10	OTO-SD-4-E (0-2)	ACTON, MA	09/01/10 14:28
L1013543-11	OTO-SD-4-W (0-2)	ACTON, MA	09/01/10 14:35

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	NO
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

The results of the Total Organic Carbon analysis will be issued under separate cover.

At the client's request, sample L1013543-10 was placed on hold.

Sample Receipt

In reference to question A:

The analysis of Hexavalent Chromium was not performed from a separate container that remained unopened until the alkaline digestion commenced.

In reference to question H:

Matrix Spikes were not submitted for the analyses of Metals and Hexavalent Chromium.

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Case Narrative (continued)

Semivolatile Organics - SIM

L1013543-07 has elevated detection limits due to the dilution required by the sample matrix.

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

Metals

LCS/LCSD SRM Lot# ERA D067-540

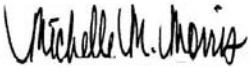
In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

Chromium, Hexavalent

LCS/LCSD SRM Lot#: ERA D062-921

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 09/10/10

ORGANICS

SEMIVOLATILES

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID:	L1013543-07	D	Date Collected:	09/01/10 13:45
Client ID:	OTO-SD-4- (0-2)		Date Received:	09/01/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C-SIM		Extraction Date:	09/08/10 08:39
Analytical Date:	09/09/10 18:34			
Analyst:	JC			
Percent Solids:	48%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	5
Fluoranthene	1100		ug/kg	140	--	5
Naphthalene	ND		ug/kg	140	--	5
Benzo(a)anthracene	500		ug/kg	140	--	5
Benzo(a)pyrene	410		ug/kg	140	--	5
Benzo(b)fluoranthene	300		ug/kg	140	--	5
Benzo(k)fluoranthene	270		ug/kg	140	--	5
Chrysene	320		ug/kg	140	--	5
Acenaphthylene	150		ug/kg	140	--	5
Anthracene	150		ug/kg	140	--	5
Benzo(ghi)perylene	290		ug/kg	140	--	5
Fluorene	ND		ug/kg	140	--	5
Phenanthrene	350		ug/kg	140	--	5
Dibenzo(a,h)anthracene	ND		ug/kg	140	--	5
Indeno(1,2,3-cd)Pyrene	270		ug/kg	140	--	5
Pyrene	810		ug/kg	140	--	5
2-Methylnaphthalene	ND		ug/kg	140	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	58		30-130
2-Fluorobiphenyl	57		30-130
4-Terphenyl-d14	76		30-130

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270C-SIM
Analytical Date: 09/09/10 17:00
Analyst: JC

Extraction Method: EPA 3546
Extraction Date: 09/08/10 08:39

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 07 Batch: WG431343-1					
Acenaphthene	ND		ug/kg	13	--
Fluoranthene	ND		ug/kg	13	--
Naphthalene	ND		ug/kg	13	--
Benzo(a)anthracene	ND		ug/kg	13	--
Benzo(a)pyrene	ND		ug/kg	13	--
Benzo(b)fluoranthene	ND		ug/kg	13	--
Benzo(k)fluoranthene	ND		ug/kg	13	--
Chrysene	ND		ug/kg	13	--
Acenaphthylene	ND		ug/kg	13	--
Anthracene	ND		ug/kg	13	--
Benzo(ghi)perylene	ND		ug/kg	13	--
Fluorene	ND		ug/kg	13	--
Phenanthrene	ND		ug/kg	13	--
Dibenzo(a,h)anthracene	ND		ug/kg	13	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	13	--
Pyrene	ND		ug/kg	13	--
2-Methylnaphthalene	ND		ug/kg	13	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	68		30-130
2-Fluorobiphenyl	68		30-130
4-Terphenyl-d14	98		30-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 07 Batch: WG431343-2 WG431343-3								
Acenaphthene	83		71		40-140	16		30
Fluoranthene	108		92		40-140	16		30
Naphthalene	84		73		40-140	14		30
Benzo(a)anthracene	96		83		40-140	15		30
Benzo(a)pyrene	78		67		40-140	15		30
Benzo(b)fluoranthene	107		95		40-140	12		30
Benzo(k)fluoranthene	114		96		40-140	17		30
Chrysene	88		76		40-140	15		30
Acenaphthylene	88		76		40-140	15		30
Anthracene	123		109		40-140	12		30
Benzo(ghi)perylene	87		74		40-140	16		30
Fluorene	104		90		40-140	14		30
Phenanthrene	91		78		40-140	15		30
Dibenzo(a,h)anthracene	97		83		40-140	16		30
Indeno(1,2,3-cd)Pyrene	98		83		40-140	17		30
Pyrene	110		93		40-140	17		30
2-Methylnaphthalene	96		83		40-140	15		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013543

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 07 Batch: WG431343-2 WG431343-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	79		72		30-130
2-Fluorobiphenyl	87		80		30-130
4-Terphenyl-d14	102		92		30-130

METALS

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-01
Client ID: OTO-SD-1 (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 72%

Date Collected: 09/01/10 11:55
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	29		mg/kg	0.55	--	1	09/07/10 14:30	09/08/10 16:59	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Lab Number: L1013543
Project Number: 0022-23-02
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-02
Client ID: OTO-SD-1-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 71%

Date Collected: 09/01/10 12:08
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	20		mg/kg	0.54	--	1	09/07/10 14:30	09/08/10 17:09	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-03
Client ID: OTO-SD-1-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 69%

Date Collected: 09/01/10 12:16
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	28		mg/kg	0.59	--	1	09/07/10 14:30	09/08/10 17:13	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-04
Client ID: OTO-SD-1-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 48%

Date Collected: 09/01/10 12:30
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	66		mg/kg	0.82	--	1	09/07/10 14:30	09/08/10 17:16	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Lab Number: L1013543
Project Number: 0022-23-02
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-05
Client ID: OTO-SD-1-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 75%

Date Collected: 09/01/10 12:23
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	16		mg/kg	0.54	--	1	09/07/10 14:30	09/08/10 17:20	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-06
Client ID: OTO-SD-3- (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 64%

Date Collected: 09/01/10 13:31
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	15		mg/kg	0.61	--	1	09/07/10 14:30	09/08/10 17:23	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-07
Client ID: OTO-SD-4- (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 48%

Date Collected: 09/01/10 13:45
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Chromium, Total	17		mg/kg	0.84	--	1	09/07/10 14:30	09/08/10 17:27	EPA 3050B	97,6010B	MG
Lead, Total	44		mg/kg	4.2	--	1	09/07/10 14:30	09/08/10 17:27	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-08
Client ID: OTO-SD-4-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 57%

Date Collected: 09/01/10 14:13
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	48		mg/kg	3.4	--	1	09/07/10 14:30	09/08/10 17:30	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-09
Client ID: OTO-SD-4-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 52%

Date Collected: 09/01/10 14:15
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	69		mg/kg	3.8	--	1	09/07/10 14:30	09/08/10 17:34	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-11
Client ID: OTO-SD-4-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 62%

Date Collected: 09/01/10 14:35
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	23		mg/kg	3.2	--	1	09/07/10 14:30	09/08/10 17:41	EPA 3050B	97,6010B	MG

Project Name: STOW ST
Project Number: 0022-23-02
Lab Number: L1013543
Report Date: 09/10/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-09,11 Batch: WG431310-1										
Chromium, Total	ND		mg/kg	0.40	--	1	09/07/10 14:30	09/08/10 10:16	97,6010B	MG
Lead, Total	ND		mg/kg	2.0	--	1	09/07/10 14:30	09/08/10 10:16	97,6010B	MG

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013543

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01-09,11 Batch: WG431310-2 WG431310-3								
Chromium, Total	95		95		80-119	0		30
Lead, Total	97		97		81-119	0		30

INORGANICS
&
MISCELLANEOUS

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-01
Client ID: OTO-SD-1 (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 11:55
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/kg	1.1	--	1	09/07/10 18:00	09/09/10 16:00	97,7196A	JT
General Chemistry - Westborough Lab										
Solids, Total	72		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW
pH	5.5		SU	-	NA	1	-	09/01/10 18:26	1,9045C	JW
Oxidation/Reduction Potential	270		mv	10	NA	1	-	09/01/10 21:06	68,1498	JW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-02
Client ID: OTO-SD-1-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 12:08
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	71		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-03
Client ID: OTO-SD-1-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 12:16
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	69		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-04
Client ID: OTO-SD-1-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 12:30
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	48		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-05
Client ID: OTO-SD-1-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 12:23
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-06
Client ID: OTO-SD-3- (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 13:31
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/kg	1.2	--	1	09/07/10 18:00	09/09/10 16:00	97,7196A	JT
General Chemistry - Westborough Lab										
Solids, Total	64		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW
pH	5.3		SU	-	NA	1	-	09/01/10 18:26	1,9045C	JW
Oxidation/Reduction Potential	310		mv	10	NA	1	-	09/01/10 21:06	68,1498	JW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-07
Client ID: OTO-SD-4- (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 13:45
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		mg/kg	1.7	--	1	09/07/10 18:00	09/09/10 16:00	97,7196A	JT
General Chemistry - Westborough Lab										
Solids, Total	48		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW
pH	5.2		SU	-	NA	1	-	09/01/10 18:26	1,9045C	JW
Oxidation/Reduction Potential	340		mv	10	NA	1	-	09/01/10 21:06	68,1498	JW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-08
Client ID: OTO-SD-4-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 14:13
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	57		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-09
Client ID: OTO-SD-4-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 14:15
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	52		%	0.10	NA	1	-	09/02/10 10:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

SAMPLE RESULTS

Lab ID: L1013543-11
Client ID: OTO-SD-4-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 14:35
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	62		%	0.10	NA	1	-	09/03/10 12:31	30,2540G	AW

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab for sample(s): 01,06-07 Batch: WG431323-1										
Chromium, Hexavalent	ND		mg/kg	0.80	--	1	09/07/10 18:00	09/09/10 16:00	97,7196A	JT

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST

Project Number: 0022-23-02

Lab Number: L1013543

Report Date: 09/10/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,06-07 Batch: WG430625-1								
pH	100		-		99-101	-		
General Chemistry - Westborough Lab Associated sample(s): 01,06-07 Batch: WG430626-1								
Oxidation/Reduction Potential	101		-			-		
MCP General Chemistry - Westborough Lab Associated sample(s): 01,06-07 Batch: WG431323-2 WG431323-3								
Chromium, Hexavalent	91		89		71-130	2		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,06-07 QC Batch ID: WG430625-2 QC Sample: L1013537-01 Client ID: DUP Sample						
pH	11	11.2	SU	2		5
General Chemistry - Westborough Lab Associated sample(s): 01,06-07 QC Batch ID: WG430626-2 QC Sample: L1013537-01 Client ID: DUP Sample						
Oxidation/Reduction Potential	100	100	mv	0		
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG430683-1 QC Sample: L1012962-18 Client ID: DUP Sample						
Solids, Total	78	77	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG430958-1 QC Sample: L1013572-27 Client ID: DUP Sample						
Solids, Total	92	93	%	1		20
MCP General Chemistry - Westborough Lab Associated sample(s): 01,06-07 QC Batch ID: WG431323-4 QC Sample: L1013542-03 Client ID: DUP Sample						
Chromium, Hexavalent	ND	ND	mg/kg	NC		35

Project Name: STOW ST
Project Number: 0022-23-02

Lab Number: L1013543
Report Date: 09/10/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1013543-01A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180)
L1013543-01B	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	ORP-9045(1),MCP-HEXCR7196-10(30),TS(7),PH-9045(1)
L1013543-02A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180),TS(7)
L1013543-03A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180),TS(7)
L1013543-04A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180),TS(7)
L1013543-05A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180),TS(7)
L1013543-06A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180)
L1013543-06B	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	ORP-9045(1),MCP-HEXCR7196-10(30),TS(7),PH-9045(1)
L1013543-07A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-CR-6010T-10(180),MCP-PB-6010T-10(180)
L1013543-07B	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	ORP-9045(1),MCP-HEXCR7196-10(30),TS(7),PH-9045(1)
L1013543-07C	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	MCP-8270SIM-10(14)
L1013543-08A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013543-09A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013543-10A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	HOLD(14)
L1013543-11A	Amber 120ml unpreserved	A	N/A	5.8	Y	Absent	TS(7),MCP-PB-6010T-10(180)

*Values in parentheses indicate holding time in days

Project Name:	STOW ST	**Lab Number:**	L1013543
Project Number:	0022-23-02	**Report Date:**	09/10/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	STOW ST	**Lab Number:**	L1013543
Project Number:	0022-23-02	**Report Date:**	09/10/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	STOW ST	**Lab Number:**	L1013543
Project Number:	0022-23-02	**Report Date:**	09/10/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

68 Annual Book of ASTM (American Society for Testing and Materials) Standards following extraction by SW-846 EPA Method 9045C under the requirements of MADEP BWSC, WSC-CAM-VIB. August 2004.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 9/1/10

ALPHA Job #: L1013543

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Serial No:09101019:25

Client Information

Client: O'Reilly Talbot & Okun
Address: 19 W. Main St. #205, Westboro MA 01581
Phone: 508-366-6409
Fax: 508-366-9826
Email: nickelsen@oto-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Bruce Nickelsen
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 9/9/10 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l. Deliverables

Billing Information

☒ Same as Client info PO #:
Bill to Springfield

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
MA MCP	S-1

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

SAMPLE HANDLING
Filtration
☐ Done ☒ Not needed ☐ Lab to do
Preservation
☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Chromium	Hex Chromium	Total Lead	8270 SIM	TOC	Sample Specific Comments	TOTAL # BOTTLES
13543 1	OTO-SD-1 (0-2)	9/1/10	11:55	SED	APR	X	X					2
2	OTO-SD-1-N (0-2)	9/1/10	12:08	SED	APR	X						1
3	OTO-SD-1-S (0-2)	9/1/10	12:16	SED	APR	X						1
4	OTO-SD-1-E (0-2)	9/1/10	12:30	SED	APR	X						1
5	OTO-SD-1-W (0-2)	9/1/10	12:23	SED	APR	X						1
6	OTO-SD-3-(0-2)	9/1/10	13:31	SED	APR	X	X					2
7	OTO-SD-4-(0-2)	9/1/10	13:45	SED	APR	X	X	X	X	X		4
8	OTO-SD-4-N (0-2)	9/1/10	14:13	SED	APR			X				1
9	OTO-SD-4-S (0-2)	9/1/10	14:15	SED	APR			X				1
10	OTO-SD-4-E (0-2)	9/1/10	14:28	SED	APR			X				1
	Container Type					A	A	A	A	A		
	Preservative					A	A	A	A	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/1/10 17:20		9/1/10 17:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Serial_No:09101019:25

Client Information

Client: O'Reilly Talbot & Okun
Address:
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.
Project Location: Acton, MA
Project #: 0022-23-02
Project Manager: Bruce Nickelsen
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 9/9/10 Time:

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 9/1/10

ALPHA Job #: L1013543

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client Info PO #:
Bill to Springfield

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: Total Lead	Sample Specific Comments	TOTAL # BOTTLES
13543 1	OTO-SD-4-W(0-2)	9/1/10	14:35	SED	APR	X		1

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type: A
Preservative: A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/1/10 17:20		9/1/10 1720

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

ANALYTICAL REPORT

Lab Number:	L1013546
Client:	O'Reilly, Talbot & Okun Associates 19 West Main Street Westboro, MA 01581
ATTN:	Bruce Nickelsen
Phone:	(508) 366-6409
Project Name:	STOW ST.
Project Number:	0022-23-02
Report Date:	09/17/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013546
Report Date: 09/17/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1013546-01	OTO-SD-4-(0-2)	ACTON, MA	09/01/10 13:45

Project Name: STOW ST. **Lab Number:** L1013546
Project Number: 0022-23-02 **Report Date:** 09/17/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cynthia McQueen

Title: Technical Director/Representative Date: 09/17/10

INORGANICS
&
MISCELLANEOUS

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013546
Report Date: 09/17/10

SAMPLE RESULTS

Lab ID: L1013546-01
Client ID: OTO-SD-4-(0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/01/10 13:45
Date Received: 09/01/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.178		%	0.010	--	1	-	09/17/10 06:00	1,9060	NR

Project Name: STOW ST.
Project Number: 0022-23-02
Lab Number: L1013546
Report Date: 09/17/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 01 Batch: WG431378-1									
Total Organic Carbon	ND		%	0.010	1	-	09/17/10 06:00	1,9060	NR

Project Name: STOW ST. **Lab Number:** L1013546

Project Number: 0022-23-02 **Report Date:** 09/17/10

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG431378-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon	113		75-125

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013546
Report Date: 09/17/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1013546-01A	Vial Large unpreserved	A	N/A	5.8	Y	Absent	A2-TOC-9060(28)

*Values in parentheses indicate holding time in days

Project Name:	STOW ST.	**Lab Number:**	L1013546
Project Number:	0022-23-02	**Report Date:**	09/17/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	STOW ST.	**Lab Number:**	L1013546
Project Number:	0022-23-02	**Report Date:**	09/17/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	STOW ST.	**Lab Number:**	L1013546
Project Number:	0022-23-02	**Report Date:**	09/17/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Certificate/Approval Program Summary

Last revised July 19, 2010 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 9/1/10

ALPHA Job #: L1013546

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Serial No: 09171011:11

Client Information

Client: O'Reilly Talbot & Okun
Address: 19 W. Main St. #205
Westboro MA 01581
Phone: 508-366-6409
Fax: 508-366-9826
Email: nickelsen@oto-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Grace Nickelsen
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #: Bill to Springfield

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
MA MCP	S-1

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: total chromium; hex chromium; total lead; 8270 SIM; TOC

SAMPLE HANDLING
Filtration
☐ Done ☒ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	total chromium	hex chromium	total lead	8270 SIM	TOC	Sample Specific Comments	TOTAL # BOTTLES
13546	OTO-SD-1 (0-2)	9/1/10	11:55	SED	APR	X	X					2
	OTO-SD-1-N (0-2)	9/1/10	12:08	SED	APR	X						1
	OTO-SD-1-S (0-2)	9/1/10	12:16	SED	APR	X						1
	OTO-SD-1-E (0-2)	9/1/10	12:30	SED	APR	X						1
	OTO-SD-1-W (0-2)	9/1/10	12:23	SED	APR	X						1
	OTO-SD-3-(0-2)	9/1/10	13:31	SED	APR	X	X					2
01	OTO-SD-4-(0-2)	9/1/10	13:45	SED	APR	X	X	X	X	X		4
	OTO-SD-4-N (0-2)	9/1/10	14:13	SED	APR			X				1
	OTO-SD-4-S (0-2)	9/1/10	14:15	SED	APR			X				1
	OTO-SD-4-E (0-2)	9/1/10	14:28	SED	APR			X				1

Container Type	A	A	A	A	A
Preservative	A	A	A	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/1/10 17:20		9/1/10 17:2

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's terms and conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/1/10 | ALPHA Job #: L1038546

Client Information

Client: O'Reilly Talbot & Okun

Address: 19 W. Main St. #805 Westboro MA 01581

Phone: 508-366-0400

Fax: 508-366-9826

e-mail: nickelsen@oto-envi.com

These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.

Project Location: Acton MA

Project #: 0022-23-02

Project Manager: Gene Nickelsen

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client Info PO #: Bill to Springfield

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
MA MCP	S-1

MA MCP PRESUMPTIVE CERTAINTY - CT REASONABLE CONFIDENCE PROTOCOLS

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: Total Chromium; Lay+ Chromium; 1,4-Dioxane; 8270 SIM; TOC

SAMPLE HANDLING

Filtration: ☐ Done ☒ Not needed ☐ Lab to do

Preservation: ☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Chromium	Lay+ Chromium	1,4-Dioxane	8270 SIM	TOC	Sample Specific Comments	TOTAL # BOTTLES
3546	OTO-SD-1 (0-2)	9/1/10	11:55	SED	APR	X	X					2
	OTO-SD-1-N (0-2)	9/1/10	12:08	SED	APR	X						1
	OTO-SD-1-S (0-2)	9/1/10	12:16	SED	APR	X						1
	OTO-SD-1-E (0-2)	9/1/10	12:30	SED	APR	X						1
	OTO-SD-1-W (0-2)	9/1/10	12:23	SED	APR	X						1
	OTO-SD-3-(0-2)	9/1/10	13:31	SED	APR	X	X					2
01	OTO-SD-4-(0-2)	9/1/10	13:45	SED	APR	X	X	X	X	X		4
	OTO-SD-4-N (0-2)	9/1/10	14:13	SED	APR			X				1
	OTO-SD-4-S (0-2)	9/1/10	14:15	SED	APR			X				1
	OTO-SD-4-E (0-2)	9/1/10	14:28	SED	APR			X				1

Container Type: A A A A A

Preservative: A A A A A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/1/10 17:20		9/1/10 17:2
P. Gilbert	9/2/10	P. Gilbert	9/2/10 9:20
	9/2/10 10:15		9/2/10 1015

FORM NO: 01-01 (rev. 14-OCT-07)

Serial No:09167 11:41

ANALYTICAL REPORT

Lab Number:	L1013666
Client:	O'Reilly, Talbot & Okun Associates 19 West Main Street Westboro, MA 01581
ATTN:	Bruce Nickelsen
Phone:	(508) 366-6409
Project Name:	STOW ST.
Project Number:	0022-23-02
Report Date:	09/13/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1013666-01	MW-4-S (0-2)	ACTON, MA	09/02/10 10:30
L1013666-02	MW-4-W (0-2)	ACTON, MA	09/02/10 10:45
L1013666-03	MW-4-E (0-2)	ACTON, MA	09/02/10 10:55
L1013666-04	SS-8 (0-2)	ACTON, MA	09/02/10 11:10
L1013666-05	SS-9 (0-2)	ACTON, MA	09/02/10 11:20
L1013666-06	MW-3 (0-1)	ACTON, MA	09/02/10 11:40
L1013666-07	MW-3-S (0-2)	ACTON, MA	09/02/10 11:45
L1013666-08	MW-3-E (0-2)	ACTON, MA	09/02/10 11:55
L1013666-09	MW-3-N (0-2)	ACTON, MA	09/02/10 12:01
L1013666-10	MW-3-W (0-2)	ACTON, MA	09/02/10 12:09
L1013666-11	SS-3-N (0-2)	ACTON, MA	09/02/10 12:25
L1013666-12	SS-3-W (0-2)	ACTON, MA	09/02/10 12:30
L1013666-13	SS-3-S (0-2)	ACTON, MA	09/02/10 12:43
L1013666-14	SS-3-E (0-2)	ACTON, MA	09/02/10 12:55
L1013666-15	SS-2-N (0-2)	ACTON, MA	09/02/10 13:10
L1013666-16	SS-2-S (0-2)	ACTON, MA	09/02/10 13:25
L1013666-17	SS-2-E (0-2)	ACTON, MA	09/02/10 13:40
L1013666-18	MW-1 (0-1)	ACTON, MA	09/02/10 14:05
L1013666-19	MW-1-E (0-2)	ACTON, MA	09/02/10 14:15
L1013666-20	MW-1-N (0-2)	ACTON, MA	09/02/10 14:30
L1013666-21	MW-1-S (0-2)	ACTON, MA	09/02/10 14:35
L1013666-22	MW-1-W (0-2)	ACTON, MA	09/02/10 14:40
L1013666-23	SS-10 (0-2)	ACTON, MA	09/02/10 14:45

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: STOW ST. **Lab Number:** L1013666
Project Number: 0022-23-02 **Report Date:** 09/13/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Sample Receipt

In reference to question H:

A Matrix Spike was not submitted for the analysis of Metals.

PAHs

L1013666-01, -13, and -16 have elevated detection limits due to the dilutions required by the sample matrices.

L1013666-02 and -05 have elevated detection limits due to the dilutions required by the matrix interferences encountered during the concentration of the samples and the analytical dilutions required by the sample matrices.

L1013666-04, -11, -12, and -14 have elevated detection limits due to the dilutions required by the elevated

Project Name:	STOW ST.	**Lab Number:**	L1013666
Project Number:	0022-23-02	**Report Date:**	09/13/10

Case Narrative (continued)

concentrations of target compounds in the samples.
L1013666-15 and -17 have elevated detection limits due to the dilutions required by the matrix interferences encountered during the concentration of the samples and the analytical dilutions required by the elevated concentrations of target compounds in the samples.
L1013666-02, -04, -05, -11, -12, -14, -15, and -17 were re-analyzed on dilution in order to quantitate the samples within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analyses were performed only for the compounds that exceeded the calibration range.
In reference to question G:
L1013666-02, -05, -15, and -17: One or more of the target analytes did not achieve the requested CAM reporting limits.
In reference to question H:
The surrogate recovery for L1013666-04 is outside the individual acceptance criteria for 4-Terphenyl-d14 (147%), but within the overall method allowances. The results of the original analysis are reported; however, all associated compounds are considered to have a potential bias.
The WG431692-2/-3 LCS/LCSD RPDs, associated with L1013666-01, -02, -04, -05, -11 through -17, and -23, are above the acceptance criteria for Acenaphthene (46%), Fluoranthene (40%), Naphthalene (48%), Benzo(a)anthracene (44%), Benzo(a)pyrene (44%), Benzo(b)fluoranthene (50%), Benzo(k)fluoranthene (39%), Chrysene (43%), Acenaphthylene (43%), Anthracene (42%), Benzo(ghi)perylene (43%), Fluorene (45%), Phenanthrene (41%), Dibenzo(a,h)anthracene (44%), Indeno(1,2,3-cd)Pyrene (47%), Pyrene (42%), and 2-Methylnaphthalene (49%); however, the individual LCS/LCSD recoveries are within method limits.
In reference to question I:
All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

Metals
LCS/LCSD SRM Lot#: ERA D067-540
L1013666-18 and -20 have elevated detection limits due to the dilutions performed because of suspected high concentrations of non-target analytes.

Project Name:	STOW ST.	**Lab Number:**	L1013666
Project Number:	0022-23-02	**Report Date:**	09/13/10

Case Narrative (continued)

L1013666-21, - 22, and -23 have elevated detection limits due to the dilutions required by the high concentrations of non-target analytes.

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 09/13/10

ORGANICS

SEMIVOLATILES

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-01	D	Date Collected:	09/02/10 10:30
Client ID:	MW-4-S (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 10:10			
Analyst:	HL			
Percent Solids:	83%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	1200		ug/kg	780	--	2
Fluoranthene	13000		ug/kg	780	--	2
Naphthalene	850		ug/kg	780	--	2
Benzo(a)anthracene	5300		ug/kg	780	--	2
Benzo(a)pyrene	4600		ug/kg	780	--	2
Benzo(b)fluoranthene	5600		ug/kg	780	--	2
Benzo(k)fluoranthene	2400		ug/kg	780	--	2
Chrysene	4900		ug/kg	780	--	2
Acenaphthylene	ND		ug/kg	780	--	2
Anthracene	3400		ug/kg	780	--	2
Benzo(ghi)perylene	2900		ug/kg	780	--	2
Fluorene	1600		ug/kg	780	--	2
Phenanthrene	14000		ug/kg	780	--	2
Dibenzo(a,h)anthracene	640		ug/kg	460	--	2
Indeno(1,2,3-cd)Pyrene	3200		ug/kg	780	--	2
Pyrene	11000		ug/kg	780	--	2
2-Methylnaphthalene	ND		ug/kg	780	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		30-130
2-Fluorobiphenyl	87		30-130
4-Terphenyl-d14	106		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-02	D2	Date Collected:	09/02/10 10:45
Client ID:	MW-4-W (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 15:53			
Analyst:	HL			
Percent Solids:	85%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	480000		ug/kg	30000	--	80
Benzo(a)anthracene	180000		ug/kg	30000	--	80
Benzo(a)pyrene	160000		ug/kg	30000	--	80
Benzo(b)fluoranthene	200000		ug/kg	30000	--	80
Chrysene	160000		ug/kg	30000	--	80
Anthracene	120000		ug/kg	30000	--	80
Benzo(ghi)perylene	98000		ug/kg	30000	--	80
Phenanthrene	440000		ug/kg	30000	--	80
Indeno(1,2,3-cd)Pyrene	120000		ug/kg	30000	--	80
Pyrene	390000		ug/kg	30000	--	80

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-02	D	Date Collected:	09/02/10 10:45
Client ID:	MW-4-W (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 10:35			
Analyst:	HL			
Percent Solids:	85%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	37000		ug/kg	1500	--	4
Fluoranthene	190000	E	ug/kg	1500	--	4
Naphthalene	28000		ug/kg	1500	--	4
Benzo(a)anthracene	140000	E	ug/kg	1500	--	4
Benzo(a)pyrene	140000	E	ug/kg	1500	--	4
Benzo(b)fluoranthene	180000	E	ug/kg	1500	--	4
Benzo(k)fluoranthene	44000		ug/kg	1500	--	4
Chrysene	120000	E	ug/kg	1500	--	4
Acenaphthylene	17000		ug/kg	1500	--	4
Anthracene	72000	E	ug/kg	1500	--	4
Benzo(ghi)perylene	98000	E	ug/kg	1500	--	4
Fluorene	38000		ug/kg	1500	--	4
Phenanthrene	190000	E	ug/kg	1500	--	4
Dibenzo(a,h)anthracene	27000		ug/kg	920	--	4
Indeno(1,2,3-cd)Pyrene	100000	E	ug/kg	1500	--	4
Pyrene	170000	E	ug/kg	1500	--	4
2-Methylnaphthalene	14000		ug/kg	1500	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	85		30-130
2-Fluorobiphenyl	86		30-130
4-Terphenyl-d14	113		30-130

Project Name: STOW ST.
Project Number: 0022-23-02
Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-04	D2	Date Collected:	09/02/10 11:10
Client ID:	SS-8 (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 16:18			
Analyst:	HL			
Percent Solids:	78%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	110000		ug/kg	8200	--	20
Benzo(a)anthracene	45000		ug/kg	8200	--	20
Benzo(a)pyrene	38000		ug/kg	8200	--	20
Benzo(b)fluoranthene	47000		ug/kg	8200	--	20
Chrysene	48000		ug/kg	8200	--	20
Phenanthrene	110000		ug/kg	8200	--	20
Pyrene	120000		ug/kg	8200	--	20

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-04	D	Date Collected:	09/02/10 11:10
Client ID:	SS-8 (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 11:00			
Analyst:	HL			
Percent Solids:	78%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	9700		ug/kg	820	--	2
Fluoranthene	96000	E	ug/kg	820	--	2
Naphthalene	4500		ug/kg	820	--	2
Benzo(a)anthracene	42000	E	ug/kg	820	--	2
Benzo(a)pyrene	37000	E	ug/kg	820	--	2
Benzo(b)fluoranthene	48000	E	ug/kg	820	--	2
Benzo(k)fluoranthene	16000		ug/kg	820	--	2
Chrysene	45000	E	ug/kg	820	--	2
Acenaphthylene	2400		ug/kg	820	--	2
Anthracene	21000		ug/kg	820	--	2
Benzo(ghi)perylene	18000		ug/kg	820	--	2
Fluorene	8600		ug/kg	820	--	2
Phenanthrene	84000	E	ug/kg	820	--	2
Dibenzo(a,h)anthracene	4500		ug/kg	490	--	2
Indeno(1,2,3-cd)Pyrene	20000		ug/kg	820	--	2
Pyrene	90000	E	ug/kg	820	--	2
2-Methylnaphthalene	3100		ug/kg	820	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	88		30-130
2-Fluorobiphenyl	98		30-130
4-Terphenyl-d14	**147**	Q	30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-05	D2	Date Collected:	09/02/10 11:20
Client ID:	SS-9 (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 16:43			
Analyst:	HL			
Percent Solids:	78%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	220000		ug/kg	16000	--	40
Benzo(a)anthracene	92000		ug/kg	16000	--	40
Benzo(a)pyrene	78000		ug/kg	16000	--	40
Benzo(b)fluoranthene	89000		ug/kg	16000	--	40
Chrysene	110000		ug/kg	16000	--	40
Phenanthrene	190000		ug/kg	16000	--	40
Pyrene	250000		ug/kg	16000	--	40

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-05	D	Date Collected:	09/02/10 11:20
Client ID:	SS-9 (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 11:25			
Analyst:	HL			
Percent Solids:	78%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	14000		ug/kg	1600	--	4
Fluoranthene	140000	E	ug/kg	1600	--	4
Naphthalene	4900		ug/kg	1600	--	4
Benzo(a)anthracene	89000	E	ug/kg	1600	--	4
Benzo(a)pyrene	74000	E	ug/kg	1600	--	4
Benzo(b)fluoranthene	96000	E	ug/kg	1600	--	4
Benzo(k)fluoranthene	26000		ug/kg	1600	--	4
Chrysene	88000	E	ug/kg	1600	--	4
Acenaphthylene	5300		ug/kg	1600	--	4
Anthracene	33000		ug/kg	1600	--	4
Benzo(ghi)perylene	47000		ug/kg	1600	--	4
Fluorene	13000		ug/kg	1600	--	4
Phenanthrene	140000	E	ug/kg	1600	--	4
Dibenzo(a,h)anthracene	13000		ug/kg	990	--	4
Indeno(1,2,3-cd)Pyrene	51000		ug/kg	1600	--	4
Pyrene	160000	E	ug/kg	1600	--	4
2-Methylnaphthalene	4300		ug/kg	1600	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		30-130
2-Fluorobiphenyl	98		30-130
4-Terphenyl-d14	105		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-11	D2	Date Collected:	09/02/10 12:25
Client ID:	SS-3-N (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 17:07			
Analyst:	HL			
Percent Solids:	79%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	220000		ug/kg	8100	--	20
Benzo(a)anthracene	90000		ug/kg	8100	--	20
Benzo(a)pyrene	81000		ug/kg	8100	--	20
Benzo(b)fluoranthene	100000		ug/kg	8100	--	20
Chrysene	90000		ug/kg	8100	--	20
Anthracene	47000		ug/kg	8100	--	20
Phenanthrene	190000		ug/kg	8100	--	20
Indeno(1,2,3-cd)Pyrene	58000		ug/kg	8100	--	20
Pyrene	200000		ug/kg	8100	--	20

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-11	D	Date Collected:	09/02/10 12:25
Client ID:	SS-3-N (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 11:50			
Analyst:	HL			
Percent Solids:	79%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	18000		ug/kg	810	--	2
Fluoranthene	140000	E	ug/kg	810	--	2
Naphthalene	9900		ug/kg	810	--	2
Benzo(a)anthracene	83000	E	ug/kg	810	--	2
Benzo(a)pyrene	72000	E	ug/kg	810	--	2
Benzo(b)fluoranthene	94000	E	ug/kg	810	--	2
Benzo(k)fluoranthene	20000		ug/kg	810	--	2
Chrysene	67000	E	ug/kg	810	--	2
Acenaphthylene	9800		ug/kg	810	--	2
Anthracene	42000	E	ug/kg	810	--	2
Benzo(ghi)perylene	32000		ug/kg	810	--	2
Fluorene	18000		ug/kg	810	--	2
Phenanthrene	150000	E	ug/kg	810	--	2
Dibenzo(a,h)anthracene	10000		ug/kg	480	--	2
Indeno(1,2,3-cd)Pyrene	38000	E	ug/kg	810	--	2
Pyrene	120000	E	ug/kg	810	--	2
2-Methylnaphthalene	5400		ug/kg	810	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	88		30-130
2-Fluorobiphenyl	91		30-130
4-Terphenyl-d14	104		30-130

Project Name: STOW ST.
Project Number: 0022-23-02
Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-12	D2	Date Collected:	09/02/10 12:30
Client ID:	SS-3-W (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 17:32			
Analyst:	HL			
Percent Solids:	75%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	95000		ug/kg	4400	--	10
Benzo(a)anthracene	40000		ug/kg	4400	--	10
Benzo(b)fluoranthene	44000		ug/kg	4400	--	10
Chrysene	37000		ug/kg	4400	--	10
Phenanthrene	48000		ug/kg	4400	--	10
Pyrene	81000		ug/kg	4400	--	10

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-12	D	Date Collected:	09/02/10 12:30
Client ID:	SS-3-W (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 12:15			
Analyst:	HL			
Percent Solids:	75%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	2800		ug/kg	880	--	2
Fluoranthene	74000	E	ug/kg	880	--	2
Naphthalene	2400		ug/kg	880	--	2
Benzo(a)anthracene	40000	E	ug/kg	880	--	2
Benzo(a)pyrene	34000		ug/kg	880	--	2
Benzo(b)fluoranthene	38000	E	ug/kg	880	--	2
Benzo(k)fluoranthene	13000		ug/kg	880	--	2
Chrysene	38000	E	ug/kg	880	--	2
Acenaphthylene	6800		ug/kg	880	--	2
Anthracene	14000		ug/kg	880	--	2
Benzo(ghi)perylene	18000		ug/kg	880	--	2
Fluorene	3400		ug/kg	880	--	2
Phenanthrene	44000	E	ug/kg	880	--	2
Dibenzo(a,h)anthracene	4800		ug/kg	520	--	2
Indeno(1,2,3-cd)Pyrene	22000		ug/kg	880	--	2
Pyrene	63000	E	ug/kg	880	--	2
2-Methylnaphthalene	890		ug/kg	880	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	71		30-130
2-Fluorobiphenyl	79		30-130
4-Terphenyl-d14	90		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-13	D	Date Collected:	09/02/10 12:43
Client ID:	SS-3-S (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 12:40			
Analyst:	HL			
Percent Solids:	72%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	ND		ug/kg	900	--	2
Fluoranthene	3400		ug/kg	900	--	2
Naphthalene	ND		ug/kg	900	--	2
Benzo(a)anthracene	1600		ug/kg	900	--	2
Benzo(a)pyrene	1400		ug/kg	900	--	2
Benzo(b)fluoranthene	1900		ug/kg	900	--	2
Benzo(k)fluoranthene	ND		ug/kg	900	--	2
Chrysene	1700		ug/kg	900	--	2
Acenaphthylene	ND		ug/kg	900	--	2
Anthracene	ND		ug/kg	900	--	2
Benzo(ghi)perylene	960		ug/kg	900	--	2
Fluorene	ND		ug/kg	900	--	2
Phenanthrene	1600		ug/kg	900	--	2
Dibenzo(a,h)anthracene	ND		ug/kg	540	--	2
Indeno(1,2,3-cd)Pyrene	1200		ug/kg	900	--	2
Pyrene	2900		ug/kg	900	--	2
2-Methylnaphthalene	ND		ug/kg	900	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	47		30-130
2-Fluorobiphenyl	82		30-130
4-Terphenyl-d14	91		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-14	D2	Date Collected:	09/02/10 12:55
Client ID:	SS-3-E (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/13/10 17:50			
Analyst:	HL			
Percent Solids:	74%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	ND		ug/kg	8700	--	20
Benzo(a)anthracene	48000		ug/kg	8700	--	20
Benzo(a)pyrene	42000		ug/kg	8700	--	20
Benzo(b)fluoranthene	34000		ug/kg	8700	--	20
Chrysene	51000		ug/kg	8700	--	20
Phenanthrene	110000		ug/kg	8700	--	20
Pyrene	110000		ug/kg	8700	--	20

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-14	D	Date Collected:	09/02/10 12:55
Client ID:	SS-3-E (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 13:24			
Analyst:	HL			
Percent Solids:	74%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	6500		ug/kg	870	--	2
Fluoranthene	72000	E	ug/kg	870	--	2
Naphthalene	5000		ug/kg	870	--	2
Benzo(a)anthracene	36000	E	ug/kg	870	--	2
Benzo(a)pyrene	36000	E	ug/kg	870	--	2
Benzo(b)fluoranthene	44000	E	ug/kg	870	--	2
Benzo(k)fluoranthene	14000		ug/kg	870	--	2
Chrysene	37000	E	ug/kg	870	--	2
Acenaphthylene	6800		ug/kg	870	--	2
Anthracene	20000		ug/kg	870	--	2
Benzo(ghi)perylene	22000		ug/kg	870	--	2
Fluorene	8000		ug/kg	870	--	2
Phenanthrene	69000	E	ug/kg	870	--	2
Dibenzo(a,h)anthracene	5600		ug/kg	520	--	2
Indeno(1,2,3-cd)Pyrene	25000		ug/kg	870	--	2
Pyrene	69000	E	ug/kg	870	--	2
2-Methylnaphthalene	2600		ug/kg	870	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		30-130
2-Fluorobiphenyl	87		30-130
4-Terphenyl-d14	90		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-15	D2	Date Collected:	09/02/10 13:10
Client ID:	SS-2-N (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 17:57			
Analyst:	HL			
Percent Solids:	67%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	380000		ug/kg	20000	--	40
Benzo(a)anthracene	150000		ug/kg	20000	--	40
Benzo(a)pyrene	130000		ug/kg	20000	--	40
Benzo(b)fluoranthene	160000		ug/kg	20000	--	40
Chrysene	140000		ug/kg	20000	--	40
Benzo(ghi)perylene	85000		ug/kg	20000	--	40
Phenanthrene	280000		ug/kg	20000	--	40
Indeno(1,2,3-cd)Pyrene	98000		ug/kg	20000	--	40
Pyrene	320000		ug/kg	20000	--	40

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-15	D	Date Collected:	09/02/10 13:10
Client ID:	SS-2-N (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 13:49			
Analyst:	HL			
Percent Solids:	67%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	17000		ug/kg	2000	--	4
Fluoranthene	270000	E	ug/kg	2000	--	4
Naphthalene	19000		ug/kg	2000	--	4
Benzo(a)anthracene	140000	E	ug/kg	2000	--	4
Benzo(a)pyrene	130000	E	ug/kg	2000	--	4
Benzo(b)fluoranthene	200000	E	ug/kg	2000	--	4
Benzo(k)fluoranthene	39000		ug/kg	2000	--	4
Chrysene	120000	E	ug/kg	2000	--	4
Acenaphthylene	32000		ug/kg	2000	--	4
Anthracene	66000		ug/kg	2000	--	4
Benzo(ghi)perylene	95000	E	ug/kg	2000	--	4
Fluorene	22000		ug/kg	2000	--	4
Phenanthrene	210000	E	ug/kg	2000	--	4
Dibenzo(a,h)anthracene	24000		ug/kg	1200	--	4
Indeno(1,2,3-cd)Pyrene	100000	E	ug/kg	2000	--	4
Pyrene	210000	E	ug/kg	2000	--	4
2-Methylnaphthalene	7200		ug/kg	2000	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		30-130
2-Fluorobiphenyl	91		30-130
4-Terphenyl-d14	103		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-16	D	Date Collected:	09/02/10 13:25
Client ID:	SS-2-S (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 14:14			
Analyst:	HL			
Percent Solids:	66%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	ND		ug/kg	980	--	2
Fluoranthene	11000		ug/kg	980	--	2
Naphthalene	ND		ug/kg	980	--	2
Benzo(a)anthracene	4900		ug/kg	980	--	2
Benzo(a)pyrene	4100		ug/kg	980	--	2
Benzo(b)fluoranthene	5500		ug/kg	980	--	2
Benzo(k)fluoranthene	2000		ug/kg	980	--	2
Chrysene	4900		ug/kg	980	--	2
Acenaphthylene	1000		ug/kg	980	--	2
Anthracene	2000		ug/kg	980	--	2
Benzo(ghi)perylene	2900		ug/kg	980	--	2
Fluorene	ND		ug/kg	980	--	2
Phenanthrene	6800		ug/kg	980	--	2
Dibenzo(a,h)anthracene	760		ug/kg	590	--	2
Indeno(1,2,3-cd)Pyrene	3400		ug/kg	980	--	2
Pyrene	8900		ug/kg	980	--	2
2-Methylnaphthalene	ND		ug/kg	980	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	68		30-130
2-Fluorobiphenyl	75		30-130
4-Terphenyl-d14	85		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-17	D2	Date Collected:	09/02/10 13:40
Client ID:	SS-2-E (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 15:28			
Analyst:	HL			
Percent Solids:	61%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Fluoranthene	92000		ug/kg	4300	--	8

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-17	D	Date Collected:	09/02/10 13:40
Client ID:	SS-2-E (0-2)		Date Received:	09/02/10
Sample Location:	ACTON, MA		Field Prep:	Not Specified
Matrix:	Soil		Extraction Method:	EPA 3546
Analytical Method:	97,8270C		Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 14:38			
Analyst:	HL			
Percent Solids:	61%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	6900		ug/kg	2100	--	4
Fluoranthene	88000	E	ug/kg	2100	--	4
Naphthalene	7300		ug/kg	2100	--	4
Benzo(a)anthracene	38000		ug/kg	2100	--	4
Benzo(a)pyrene	34000		ug/kg	2100	--	4
Benzo(b)fluoranthene	47000		ug/kg	2100	--	4
Benzo(k)fluoranthene	15000		ug/kg	2100	--	4
Chrysene	38000		ug/kg	2100	--	4
Acenaphthylene	5900		ug/kg	2100	--	4
Anthracene	22000		ug/kg	2100	--	4
Benzo(ghi)perylene	23000		ug/kg	2100	--	4
Fluorene	8000		ug/kg	2100	--	4
Phenanthrene	82000		ug/kg	2100	--	4
Dibenzo(a,h)anthracene	5600		ug/kg	1300	--	4
Indeno(1,2,3-cd)Pyrene	28000		ug/kg	2100	--	4
Pyrene	71000		ug/kg	2100	--	4
2-Methylnaphthalene	2700		ug/kg	2100	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		30-130
2-Fluorobiphenyl	83		30-130
4-Terphenyl-d14	85		30-130

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

SAMPLE RESULTS

Lab ID:	L1013666-23	Date Collected:	09/02/10 14:45
Client ID:	SS-10 (0-2)	Date Received:	09/02/10
Sample Location:	ACTON, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	97,8270C	Extraction Date:	09/09/10 17:45
Analytical Date:	09/10/10 15:03		
Analyst:	HL		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP PAHs - Westborough Lab						
Acenaphthene	ND		ug/kg	380	--	1
Fluoranthene	ND		ug/kg	380	--	1
Naphthalene	ND		ug/kg	380	--	1
Benzo(a)anthracene	ND		ug/kg	380	--	1
Benzo(a)pyrene	ND		ug/kg	380	--	1
Benzo(b)fluoranthene	ND		ug/kg	380	--	1
Benzo(k)fluoranthene	ND		ug/kg	380	--	1
Chrysene	ND		ug/kg	380	--	1
Acenaphthylene	ND		ug/kg	380	--	1
Anthracene	ND		ug/kg	380	--	1
Benzo(ghi)perylene	ND		ug/kg	380	--	1
Fluorene	ND		ug/kg	380	--	1
Phenanthrene	ND		ug/kg	380	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	230	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	380	--	1
Pyrene	ND		ug/kg	380	--	1
2-Methylnaphthalene	ND		ug/kg	380	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	64		30-130
2-Fluorobiphenyl	79		30-130
4-Terphenyl-d14	89		30-130

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270C
Analytical Date: 09/10/10 12:30
Analyst: HL

Extraction Method: EPA 3546
Extraction Date: 09/09/10 17:45

Parameter	Result	Qualifier	Units	RL	MDL
MCP PAHs - Westborough Lab for sample(s): 01-02,04-05,11-17,23 Batch: WG431692-1					
Acenaphthene	ND		ug/kg	330	--
Fluoranthene	ND		ug/kg	330	--
Naphthalene	ND		ug/kg	330	--
Benzo(a)anthracene	ND		ug/kg	330	--
Benzo(a)pyrene	ND		ug/kg	330	--
Benzo(b)fluoranthene	ND		ug/kg	330	--
Benzo(k)fluoranthene	ND		ug/kg	330	--
Chrysene	ND		ug/kg	330	--
Acenaphthylene	ND		ug/kg	330	--
Anthracene	ND		ug/kg	330	--
Benzo(ghi)perylene	ND		ug/kg	330	--
Fluorene	ND		ug/kg	330	--
Phenanthrene	ND		ug/kg	330	--
Dibenzo(a,h)anthracene	ND		ug/kg	200	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	330	--
Pyrene	ND		ug/kg	330	--
2-Methylnaphthalene	ND		ug/kg	330	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	55		30-130
2-Fluorobiphenyl	59		30-130
4-Terphenyl-d14	70		30-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST.

Project Number: 0022-23-02

Lab Number: L1013666

Report Date: 09/13/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP PAHs - Westborough Lab Associated sample(s): 01-02,04-05,11-17,23 Batch: WG431692-2 WG431692-3								
Acenaphthene	66		105		40-140	**46**	Q	30
Fluoranthene	74		111		40-140	**40**	Q	30
Naphthalene	62		101		40-140	**48**	Q	30
Benzo(a)anthracene	71		111		40-140	**44**	Q	30
Benzo(a)pyrene	62		97		40-140	**44**	Q	30
Benzo(b)fluoranthene	65		108		40-140	**50**	Q	30
Benzo(k)fluoranthene	79		117		40-140	**39**	Q	30
Chrysene	70		108		40-140	**43**	Q	30
Acenaphthylene	64		99		40-140	**43**	Q	30
Anthracene	72		110		40-140	**42**	Q	30
Benzo(ghi)perylene	74		114		40-140	**43**	Q	30
Fluorene	69		109		40-140	**45**	Q	30
Phenanthrene	71		108		40-140	**41**	Q	30
Dibenzo(a,h)anthracene	74		116		40-140	**44**	Q	30
Indeno(1,2,3-cd)Pyrene	72		116		40-140	**47**	Q	30
Pyrene	68		104		40-140	**42**	Q	30
2-Methylnaphthalene	59		97		40-140	**49**	Q	30

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST.

Project Number: 0022-23-02

Lab Number: L1013666

Report Date: 09/13/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP PAHs - Westborough Lab Associated sample(s): 01-02,04-05,11-17,23 Batch: WG431692-2 WG431692-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	62		101		30-130
2-Fluorobiphenyl	66		101		30-130
4-Terphenyl-d14	71		103		30-130

METALS

Project Name: STOW ST.
Project Number: 0022-23-02
Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-01
Client ID: MW-4-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 83%

Date Collected: 09/02/10 10:30
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	5.3		mg/kg	0.47	--	1	09/08/10 16:20	09/09/10 18:11	EPA 3050B	97,6010B	AI
Lead, Total	120		mg/kg	2.4	--	1	09/08/10 16:20	09/09/10 18:11	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-02
Client ID: MW-4-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 85%

Date Collected: 09/02/10 10:45
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	24		mg/kg	0.48	--	1	09/08/10 16:20	09/09/10 18:18	EPA 3050B	97,6010B	AI
Lead, Total	470		mg/kg	2.4	--	1	09/08/10 16:20	09/09/10 18:18	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-04
Client ID: SS-8 (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 78%

Date Collected: 09/02/10 11:10
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	260		mg/kg	2.6	--	1	09/08/10 16:20	09/09/10 18:31	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-05
Client ID: SS-9 (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 78%

Date Collected: 09/02/10 11:20
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	380		mg/kg	2.5	--	1	09/08/10 16:20	09/09/10 18:34	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-06
Client ID: MW-3 (0-1)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 77%

Date Collected: 09/02/10 11:40
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	140		mg/kg	0.52	--	1	09/08/10 16:20	09/09/10 18:37	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-07
Client ID: MW-3-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 82%

Date Collected: 09/02/10 11:45
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	11		mg/kg	0.49	--	1	09/08/10 16:20	09/09/10 18:41	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-08
Client ID: MW-3-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 85%

Date Collected: 09/02/10 11:55
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	140		mg/kg	0.46	--	1	09/08/10 16:20	09/09/10 18:44	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-09
Client ID: MW-3-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 84%

Date Collected: 09/02/10 12:01
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	12		mg/kg	0.46	--	1	09/08/10 16:20	09/09/10 18:47	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-10
Client ID: MW-3-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 85%

Date Collected: 09/02/10 12:09
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	17		mg/kg	0.46	--	1	09/08/10 16:20	09/09/10 18:50	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-11
Client ID: SS-3-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 79%

Date Collected: 09/02/10 12:25
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	1800		mg/kg	2.5	--	1	09/08/10 16:20	09/09/10 18:54	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-12
Client ID: SS-3-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 75%

Date Collected: 09/02/10 12:30
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	490		mg/kg	2.7	--	1	09/08/10 16:20	09/09/10 18:57	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-13
Client ID: SS-3-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 72%

Date Collected: 09/02/10 12:43
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	230		mg/kg	2.8	--	1	09/08/10 16:20	09/09/10 19:00	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-14
Client ID: SS-3-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 74%

Date Collected: 09/02/10 12:55
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	360		mg/kg	2.7	--	1	09/08/10 16:20	09/09/10 19:10	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-15
Client ID: SS-2-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 67%

Date Collected: 09/02/10 13:10
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	1000		mg/kg	3.0	--	1	09/08/10 16:20	09/09/10 19:13	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-16
Client ID: SS-2-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 66%

Date Collected: 09/02/10 13:25
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	1000		mg/kg	3.1	--	1	09/08/10 16:20	09/09/10 19:16	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-17
Client ID: SS-2-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 61%

Date Collected: 09/02/10 13:40
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	830		mg/kg	3.3	--	1	09/08/10 16:20	09/09/10 19:20	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-18
Client ID: MW-1 (0-1)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 88%

Date Collected: 09/02/10 14:05
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	60		mg/kg	2.3	--	5	09/08/10 16:20	09/09/10 19:23	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-20
Client ID: MW-1-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 90%

Date Collected: 09/02/10 14:30
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	50		mg/kg	4.5	--	5	09/08/10 16:20	09/09/10 19:26	EPA 3050B	97,6010B	AI

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-21
Client ID: MW-1-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 90%

Date Collected: 09/02/10 14:35
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	39		mg/kg	4.5	--	5	09/08/10 14:20	09/09/10 14:14	EPA 3050B	97,6010B	MG

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-22
Client ID: MW-1-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 91%

Date Collected: 09/02/10 14:40
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	30		mg/kg	4.4	--	5	09/08/10 14:20	09/09/10 14:24	EPA 3050B	97,6010B	MG

Project Name: STOW ST.
Lab Number: L1013666
Project Number: 0022-23-02
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-23
Client ID: SS-10 (0-2)
Sample Location: ACTON, MA
Matrix: Soil
Percent Solids: 84%

Date Collected: 09/02/10 14:45
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Lead, Total	96		mg/kg	12	--	5	09/08/10 14:20	09/09/10 14:28	EPA 3050B	97,6010B	MG

Project Name: STOW ST. **Lab Number:** L1013666

Project Number: 0022-23-02 **Report Date:** 09/13/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 21-23 Batch: WG431439-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	09/08/10 14:20	09/09/10 13:43	97,6010B	MG
Lead, Total	ND		mg/kg	2.0	--	1	09/08/10 14:20	09/09/10 13:43	97,6010B	MG

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-02,04-18,20 Batch: WG431538-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	09/08/10 16:20	09/09/10 18:02	97,6010B	AI
Lead, Total	ND		mg/kg	2.0	--	1	09/08/10 16:20	09/09/10 18:02	97,6010B	AI

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST.

Project Number: 0022-23-02

Lab Number: L1013666

Report Date: 09/13/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 21-23 Batch: WG431439-2 WG431439-3								
Arsenic, Total	94		94		80-120	0		30
Lead, Total	97		97		80-120	0		30
MCP Total Metals - Westborough Lab Associated sample(s): 01-02,04-18,20 Batch: WG431538-2 WG431538-3								
Arsenic, Total	101		109		80-120	8		30
Lead, Total	97		111		80-120	13		30

INORGANICS
&
MISCELLANEOUS

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-01
Client ID: MW-4-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 10:30
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-02
Client ID: MW-4-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 10:45
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-04
Client ID: SS-8 (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 11:10
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-05
Client ID: SS-9 (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 11:20
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-06
Client ID: MW-3 (0-1)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 11:40
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-07
Client ID: MW-3-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 11:45
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-08
Client ID: MW-3-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 11:55
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-09
Client ID: MW-3-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 12:01
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-10
Client ID: MW-3-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 12:09
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-11
Client ID: SS-3-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 12:25
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-12
Client ID: SS-3-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 12:30
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-13
Client ID: SS-3-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 12:43
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-14
Client ID: SS-3-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 12:55
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-15
Client ID: SS-2-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 13:10
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	67		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-16
Client ID: SS-2-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 13:25
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	66		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-17
Client ID: SS-2-E (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 13:40
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	61		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-18
Client ID: MW-1 (0-1)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 14:05
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-20
Client ID: MW-1-N (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 14:30
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-21
Client ID: MW-1-S (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 14:35
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	09/03/10 18:15	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-22
Client ID: MW-1-W (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 14:40
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91		%	0.10	NA	1	-	09/03/10 18:46	30,2540G	AW

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

SAMPLE RESULTS

Lab ID: L1013666-23
Client ID: SS-10 (0-2)
Sample Location: ACTON, MA
Matrix: Soil

Date Collected: 09/02/10 14:45
Date Received: 09/02/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	09/03/10 18:46	30,2540G	AW

Lab Duplicate Analysis
Batch Quality Control

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-18,20-21 QC Batch ID: WG431016-1 QC Sample: L1013666-01 Client ID: MW-4-S (0-2)						
Solids, Total	83	82	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 22-23 QC Batch ID: WG431021-1 QC Sample: L1013666-22 Client ID: MW-1-W (0-2)						
Solids, Total	91	91	%	0		20

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1013666-01A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-01B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7),MCP-PB-6010T-10(180)
L1013666-02A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-02B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7),MCP-PB-6010T-10(180)
L1013666-03A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	HOLD(14)
L1013666-03B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	HOLD(14)
L1013666-04A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-04B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-05A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-05B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-06A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-07A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-08A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-09A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-10A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-11A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-11B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-12A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-12B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-13A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-13B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-14A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-14B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-15A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-15B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)

*Values in parentheses indicate holding time in days

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1013666
Report Date: 09/13/10

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1013666-16A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-16B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-17A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-17B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)
L1013666-18A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-19A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	HOLD(14)
L1013666-20A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-21A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-22A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-AS-6010T-10(180),TS(7)
L1013666-23A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-PAH-10(14)
L1013666-23B	Amber 250ml unpreserved	A	N/A	3	Y	Absent	TS(7),MCP-PB-6010T-10(180)

*Values in parentheses indicate holding time in days

Project Name:	STOW ST.	**Lab Number:**	L1013666
Project Number:	0022-23-02	**Report Date:**	09/13/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	STOW ST.	**Lab Number:**	L1013666
Project Number:	0022-23-02	**Report Date:**	09/13/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	STOW ST.	**Lab Number:**	L1013666
Project Number:	0022-23-02	**Report Date:**	09/13/10

REFERENCES

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 3

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10

ALPHA Job #: L1013666

Client Information

Client: O'Reilly Talbot + Okun
Address: 19 W. Main St. #205
Westboro MA 01581
Phone: 508 366-6409
Fax: 508 366-9826
Email: nickelsen@oto-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Bruce Nickelsen
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 9/10/10 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:
Bill to Springfield

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

SAMPLE HANDLING

Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs by 8270	total lead	total arsenic	Sample Specific Comments	TOTAL # BOTTLES
13666 1	MW-4-S(0-2)	9/2/10	10:30	soil	APR	X	X	X		2
2	MW-4-W(0-2)		10:45	soil	APR	X	X	X		2
3	MW-4-E(0-2)		10:55	soil	APR	X	X	X	HOLD - PR 9/13	2
4	SS-8(0-2)		11:10	soil	APR	X	X			2
5	SS-9(0-2)		11:20	soil	APR	X	X			1
6	MW-3(0-1)		11:40	soil	APR			X		1
7	MW-3-S(0-2)		11:45	soil	APR			X		1
8	MW-3-E(0-2)		11:55	soil	APR			X		1
9	MW-3-N(0-2)		12:01	soil	APR			X		1
10	MW-3-W(0-2)		12:09	soil	APR			X		1
	Container Type					A	A	A		
	Preservative					A	A	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/2/10 1630	Client	9/2/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 2 OF 3

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10

ALPHA Job #: L1013666

Client Information

Client: OTO

Address: Westboro MA 01581

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.

Project Location: Acton MA

Project #: 0022-23-02

Project Manager: Bruce Nickelsen

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 9/10/10 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #: Bill to Stantec

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

SAMPLE HANDLING

Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs by 8270	total lead	total arsenic	Sample Specific Comments	TOTAL # BOTTLES
13666 11	SS-3-N(0-2)	9/2/10	12:25	Soil	APR	X	X			2
12	SS-3-W(0-2)	9/2/10	12:30	Soil	APR	X	X			2
13	SS-3-S(0-2)	9/2/10	12:43	Soil	APR	X	X			2
14	SS-3-E(0-2)	9/2/10	12:55	Soil	APR	X	X			2
15	SS-2-N(0-2)	9/2/10	13:10	Soil	APR	X	X			2
16	SS-2-S(0-2)	9/2/10	13:25	Soil	APR	X	X			2
17	SS-2-E(0-2)	9/2/10	13:40	Soil	AR	X	X			2
18	MW-1(0-1)	9/2/10	14:05	Soil	APR			X		1
19	MW-1-E(0-2)	9/2/10	14:15	Soil	APR			X		1
20	MW-1-N(0-2)	9/2/10	14:30	Soil	APR			X		1
	Container Type					A	A	A		
	Preservative					A	A	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/2/10 1630		9/2/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 3 OF 3

ALPHA TECHNICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10

ALPHA Job #: L1013666

Client Information

Client: OTO

Address: Westboro MA 01581

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.

Project Location: Acton MA

Project #: 0002-03-02

Project Manager: Bruce Nickerson

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 9/10/10 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #: Bill to Stow/Mansfield

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS

- total arsenic
- PAHs by 8270
- total lead

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	total arsenic	PAHs by 8270	total lead	Sample Specific Comments	TOTAL # BOTTLES
13666 1	MW-1-S(0-2)	9/2/10	14:35	Soil	ARC	X				1
2	MW-1-W(0-2)	9/2/10	14:40	Soil	ARC	X				1
3	SS-10(0-2)	9/2/10	14:45	Soil	ARC		X	X		2

Container Type	A	A	A
Preservative	A	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/2/10 1630		9/2/10 1632

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

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CHAIN OF CUSTODY PAGE 2 OF 3

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10 | ALPHA Job #:

Client Information
Client: OTO
Address: Westboro MA 01581
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Shaw St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Bruce Nickelsen
ALPHA Quote #:

Turn-Around Time
☐ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☑ Same as Client info PO #: Bill to Sanofi

Regulatory Requirements/Report Limits
State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO
☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: PAHs by 8270	Total Lead	Total Solids	Sample Specific Comments	
	SS-3-N(0-2)	9/2/10	12:25	Soil	ARR	X	X			9
	SS-3-W(0-2)	9/2/10	12:30	Soil	ARR	X	X			2
	SS-3-S(0-2)	9/2/10	12:43	Soil	ARR	X	X			2
	SS-3-E(0-2)	9/2/10	12:55	Soil	ARR	X	X			2
	SS-2-N(0-2)	9/2/10	13:10	Soil	ARR	X	X			2
	SS-2-S(0-2)	9/2/10	13:25	Soil	ARR	X	X			2
	SS-2-E(0-2)	9/2/10	13:40	Soil	ARR	X	X			2
	MW-1(0-1)	9/2/10	14:15	Soil	ARR			X		1
	MW-1-E(0-2)	9/2/10	14:15	Soil	ARR			X	HOLD ARR	1
	MW-1-N(0-2)	9/2/10	14:30	Soil	ARR			X		1
					Container Type	A	A	A		
					Preservative	A	A	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/2/10 1630		9/2/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1015207
Client:	O'Reilly, Talbot & Okun Associates 19 West Main Street Westboro, MA 01581
ATTN:	Bruce Nickelsen
Phone:	(508) 366-6409
Project Name:	STOW ST.
Project Number:	0022-23-02
Report Date:	10/01/10

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1015207
Report Date: 10/01/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1015207-01	COMPOSITE 1	ACTON, MA	09/02/10 11:40
L1015207-02	COMPOSITE 2	ACTON, MA	09/02/10 10:30
L1015207-03	13666-06,08	ACTON, MA	09/02/10 11:40
L1015207-04	13666-01,02,04,05,11 THRU 17	ACTON, MA	09/02/10 10:30

Project Name: STOW ST. **Lab Number:** L1015207

Project Number: 0022-23-02 **Report Date:** 10/01/10

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: STOW ST. **Lab Number:** L1015207
Project Number: 0022-23-02 **Report Date:** 10/01/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

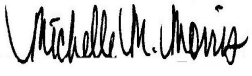
For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 10/01/10

METALS

Project Name: STOW ST.
Project Number: 0022-23-02
Lab Number: L1015207
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID: L1015207-01
Client ID: COMPOSITE 1
Sample Location: ACTON, MA
Matrix: Soil
Date Collected: 09/02/10 11:40
Date Received: 09/02/10
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 09/30/10 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	10/01/10 09:20	10/01/10 11:21	EPA 3015	1,6010B	MG
Lead, TCLP	ND		mg/l	0.50	--	1	10/01/10 09:20	10/01/10 11:21	EPA 3015	1,6010B	MG

Project Name: STOW ST.
Project Number: 0022-23-02
Lab Number: L1015207
Report Date: 10/01/10

SAMPLE RESULTS

Lab ID: L1015207-02
Client ID: COMPOSITE 2
Sample Location: ACTON, MA
Matrix: Soil
Date Collected: 09/02/10 10:30
Date Received: 09/02/10
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 09/30/10 16:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab											
Arsenic, TCLP	ND		mg/l	1.0	--	1	10/01/10 09:20	10/01/10 11:32	EPA 3015	1,6010B	MG
Lead, TCLP	0.71		mg/l	0.50	--	1	10/01/10 09:20	10/01/10 11:32	EPA 3015	1,6010B	MG

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1015207
Report Date: 10/01/10

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
TCLP Metals by EPA 1311 - Westborough Lab for sample(s): 01-02 Batch: WG435228-1										
Arsenic, TCLP	ND		mg/l	1.0	--	1	10/01/10 09:20	10/01/10 11:13	1,6010B	MG
Lead, TCLP	ND		mg/l	0.50	--	1	10/01/10 09:20	10/01/10 11:13	1,6010B	MG

Prep Information

Digestion Method: EPA 3015
TCLP Extraction Date: 09/30/10 16:30

Lab Control Sample Analysis

Batch Quality Control

Project Name: STOW ST.

Project Number: 0022-23-02

Lab Number: L1015207

Report Date: 10/01/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 Batch: WG435228-2								
Arsenic, TCLP	100		-		75-125	-		20
Lead, TCLP	100		-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1015207
Report Date: 10/01/10

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG435228-4 QC Sample: L1015207-01 Client ID: COMPOSITE 1												
Arsenic, TCLP	ND	10	11	110		-	-		75-125	-		20
Lead, TCLP	ND	10	10	100		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1015207
Report Date: 10/01/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
TCLP Metals by EPA 1311 - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG435228-3 QC Sample: L1015207-01 Client ID: COMPOSITE 1						
Arsenic, TCLP	ND	ND	mg/l	NC		20
Lead, TCLP	ND	ND	mg/l	NC		20

Project Name: STOW ST.
Project Number: 0022-23-02

Lab Number: L1015207
Report Date: 10/01/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1015207-01A	Amber 250ml unpreserved split	A	N/A	3	Y	Absent	-
L1015207-01B	Plastic 250ml HNO3 preserved spl	A	<2	3	Y	Absent	AS-CI(180),PB-CI(180)
L1015207-02A	Amber 250ml unpreserved split	A	N/A	3	Y	Absent	-
L1015207-02B	Plastic 250ml HNO3 preserved spl	A	<2	3	Y	Absent	AS-CI(180),PB-CI(180)
L1015207-03A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-03B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04A	Amber 120ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04B	Amber 120ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04C	Amber 120ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04D	Amber 120ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04E	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04F	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04G	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04H	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04I	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04J	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()
L1015207-04K	Amber 250ml unpreserved	A	N/A	3	Y	Absent	COMP-S()

*Values in parentheses indicate holding time in days

Project Name:	STOW ST.	**Lab Number:**	L1015207
Project Number:	0022-23-02	**Report Date:**	10/01/10

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

Report Format: Data Usability Report

Project Name:	STOW ST.	**Lab Number:**	L1015207
Project Number:	0022-23-02	**Report Date:**	10/01/10

Data Qualifiers

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	STOW ST.	**Lab Number:**	L1015207
Project Number:	0022-23-02	**Report Date:**	10/01/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised July 19, 2010 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))
Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)
Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)
Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME DRO, ME GRO, MA EPH, MA VPH.)
*Solid Waste/Soil (*Organic Parameters: ME DRO, ME GRO, MA EPH, MA VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water
Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)
(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate)
353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B.
Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)
(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), 314.0, 332.
Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; MF-SM9222D
Non-Potable Water
Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)
(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl, V,Zn,Ca,Mg,Na,K)
245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables, 600/4-81-045-PCB-Oil

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 120.1, 300.0, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)
Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, SM2120B, 2510B, 5310C, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)
Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7.)
Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 1312, 3540C, 3545, 3550B, 3580A, 5035L, 5035H, NJ OQA-QAM-025 Rev.7.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)
Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, LACHAT 10-117-07-1A or B, SM4500Cl-E, 4500F-C, SM15 426C, EPA 350.1, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, S\M3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, SM4500-CN-E LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B, 9010B, 9030B.)
Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Non-Potable Water (Organic Parameters: EPA 3510C, 5030B, 625, 624. 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)
Solid & Hazardous Waste (Inorganic Parameters: EPA 1010, 1030, 1311, 3050B, 3051, 6010B, EPA 7.3.3.2, EPA 7.3.4.2, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065. Organic Parameters: 3540C, 3545, 3580A, 5035, 8021B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 9251, 9038, 350.1, 353.2, 351.1, 120.1, 9050A , 410.4, 9060, 1664, 420.1, LACHAT 10-107-06-1-B, SM 4500CN-E, 4500H-B, 4500CL-E, 4500F-BC, 4500SO4-E, 426C, 4500NH3-B, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500Norg-C, 4500PE, 2510B, 5540C, 5220D, 5310C, 2540B, 2540C, 2540D, 510C, 4500S2-AD, 3005A, 3015, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8330, 625, 8082, 8151A, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9040B, 9045C, 9065, 420.1, 9012A, 6860, 1311, 1312, 3050B, 9030B, 3051, 9010B, 3540C, SM 510ABC, 4500CN-CE, 2540G, SW-846 7.3, Organic Parameters: EPA 8260B, 8270C, 8330, 8082, 8081A, 8151A, 3545, 3546, 3580, 5035, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Serial_No:10011017:07

CHAIN OF CUSTODY

PAGE_____ OF _____

ALPHA ANALYTICAL

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10

ALPHA Job #: L1015207

Client Information

Client: OTO

Address:

Phone:

Fax:

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.

Project Location: Acton, MA

Project #: 0022-23-02

Project Manager: Bruce Nickelson

ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)

Date Due: 10/1/10 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: TCLP As, Pb

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments	TOTAL # BOTTLES
15207.1	COMPOSITE 1	9/2/10	11:40	Soil		Composite of L1013666-06,08	
2	COMPOSITE 2	9/2/10	10:30	Soil		Composite of L1013666-01,02,03 -05,-11,12,13,14,15,16,17	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
			9/29/10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

L1015207

CHAIN OF CUSTODY

PAGE 1 OF 3

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10

ALPHA Job #: L1015207

Client Information

Client: O'Reilly Talbot + Okun
Address: 19 W. Main St. Floor 5
Westboro MA 01581
Phone: 508 366-6409
Fax: 508 366-9826
Email: nickelsen@oto-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Stow St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Brian Nickelsen
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 10/1/10 9 Hour Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client Info PO #: Bill to Stow Field

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All CAM methods for inorganic analyses require MS every 20 soil samples)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Analysis: 8 PAHs by 8270	7 PAHs by 8270	Total Arsenic	Composite to Create Sample L1015207-01	Composite to Create Sample L1015207-02	Sample Specific Comments	Total # Bottles
1015207-01	MW-4-S(0-2)	9/2/10	10:30	soil	APR	X	X	X	X			2
04	MW-4-W(0-2)		10:45	soil	APR	X	X	X	X			2
03	MW-4-E(0-2)		10:55	soil	APR	X	X	X			HOLD - PR 9/13	2
04	SS-8(0-2)		11:10	soil	APR	X	X			X		2
05	SS-9(0-2)		11:20	soil	APR	X	X			X		2
06	MW-3(0-1)		11:40	soil	APR		X	X	X			1
07	MW-3-S(0-2)		11:45	soil	APR			X				1
08	MW-3-E(0-2)		11:55	soil	APR			X	X			1
09	MW-3-N(0-2)		12:01	soil	APR			X				1
10	MW-3-W(0-2)		12:09	soil	APR			X				1
	Container Type					A	A	A				
	Preservative					A	A	A				

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/2/10 1630	Chemistry	9/2/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 2 OF 3

L1015207

ALPHA TIDAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 9/2/10 | ALPHA Job #: L1015207

Client Information
Client: OTO
Address: Westboro MA 01581
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Stow St.
Project Location: Acton MA
Project #: 0022-23-02
Project Manager: Bruce Nickerson
ALPHA Quote #:

Turn-Around Time
☐ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 10/1/10 9/10/10 Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☒ Same as Client info PO #: Bill to Stantec

Regulatory Requirements/Report Limits
State /Fed Program: MA MCP Criteria: S-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Analysis: TAL+TCL VOA	TAL+TCL SVOA	TAL+TCL Pest	Compositie to create Sample 15207-02	Sample Specific Comments	TOTAL # BOTTLES
15207-4	SS-3-N(0-2)	9/2/10	12:25	Soil	ARR	X	X		X		2
4	SS-3-W(0-2)	9/2/10	12:30	Soil	ARR	X	X		X		2
4	SS-3-S(0-2)	9/2/10	12:43	Soil	ARR	X	X		X		2
4	SS-3-E(0-2)	9/2/10	12:55	Soil	ARR	X	X		X		2
4	SS-2-N(0-2)	9/2/10	13:10	Soil	ARR	X	X		X		2
4	SS-2-S(0-2)	9/2/10	13:25	Soil	ARR	X	X		X		2
4	SS-2-E(0-2)	9/2/10	13:40	Soil	AR	X	X		X		2
	MW-1(0-1)	9/2/10	14:05	Soil	ARR			X			1
	MW-1-E(0-2)	9/2/10	14:15	Soil	ARR			X			1
	MW-1-N(0-2)	9/2/10	14:30	Soil	ARR			X			1

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type: A A A
Preservative: A A A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	9/2/10 1630		9/2/10 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 16-Jan-2010)

APPENDIX B

O'Reilly, Talbot & Okun Associates, Inc.
19 West Main Street, Suite 205
Westborough, MA 01581

Attention: Bruce Nickelsen
STS Job#: 1910
Billing Ref: Job# J22-23-02

Dear Bruce: September 11, 2010

Please find enclosed seven (7) PLM digital photomicrographs, seven (7) SEM digital photomicrographs and seven (7) EDS spectra from the submitted samples for coal/wood ash/coal flyash identification according to the "Methods for Evaluating Application of the Coal Ash and Wood Ash Exemption under the Massachusetts Contingency Plan" by stereomicroscopy, Polarized Light Microscopy (PLM) and Scanning Electron Microscopy/Energy Dispersive X-ray Spectrometry (SEM/EDS).

METHODS:

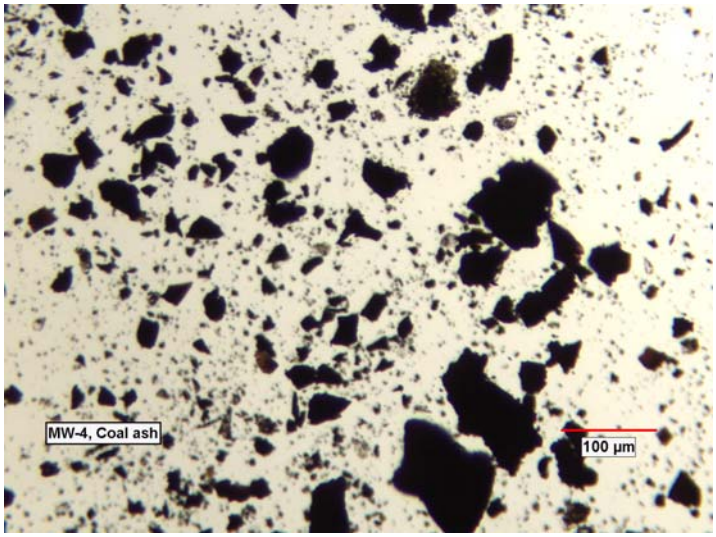
A major portion of the sample was dried in a Blue M Model OV-18SA drying oven at 90 degrees C for 2 hours in two 3-inch aluminum weighing dishes to remove any moisture. Numerous black grains, similar in appearance to coal, wood ash or coal flyash were removed and separated with tweezers under the examination of a Nikon stereomicroscope. A portion of the grains were mounted on double-sided tape on a ½ inch SEM stub. Another portion of the grains were ground into a fine powder with a mortar and pestle, then an aliquot was deposited in index of refraction liquid (n=1.605 Cargille Series E High Dispersion) on a glass slide for the PLM examination.

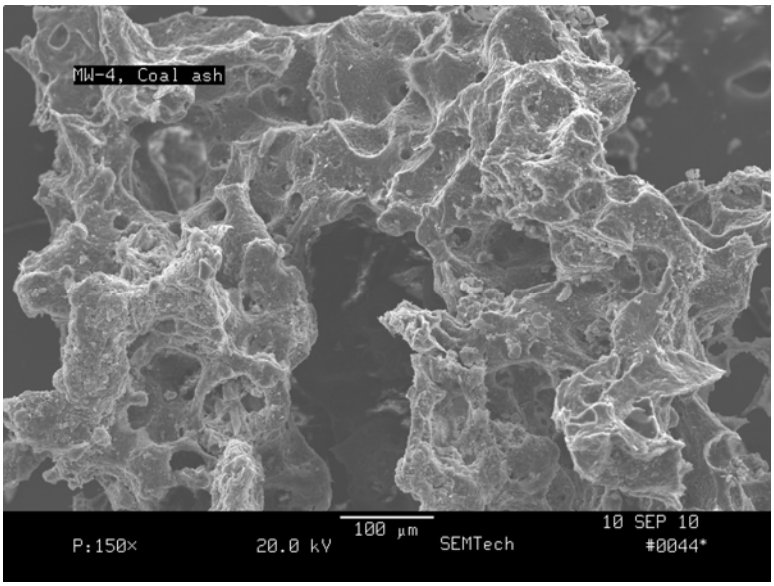
The SEM stubs were coated with graphite from an Edwards Vacuum Evaporator to eliminate charging in nonconductive samples. The samples were examined in an Amray 3300 FESEM (field emission scanning electron microscope) with energy dispersive x-ray spectroscopy (EDS) using a light element detector to determine the elemental composition of the samples. Digital photomicrographs were taken of the particles both by PLM and SEM/EDS in order to document the observations in this report.

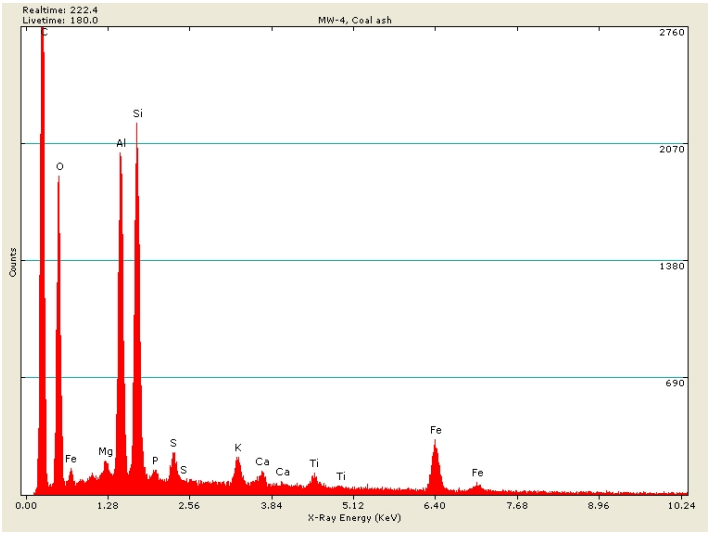
FINDINGS: MW-4, 0'-2':

Please refer to the PLM and SEM photomicrographs as well as the EDS spectra. Five particle types were identified in this sample for the coal ash analysis.

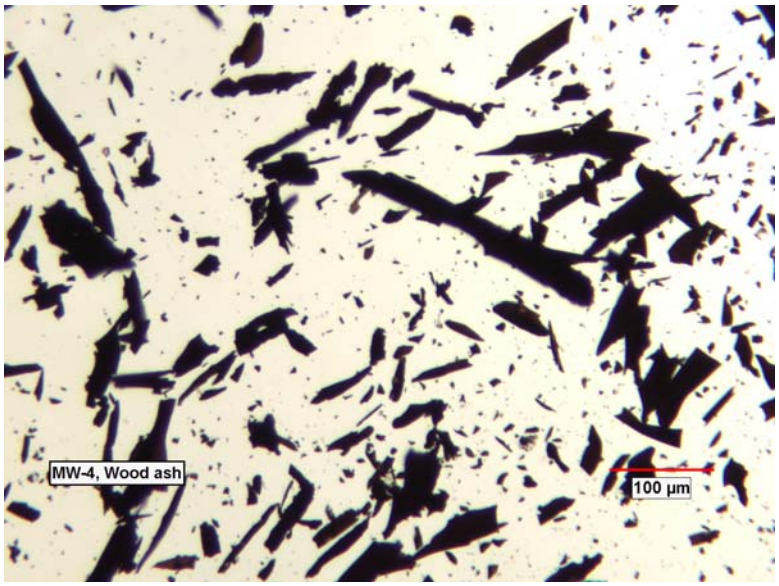
The first particle type consists of irregular curved gray-black opaque particles that did not dissolve in the index of refraction oil by PLM. SEM examination reveals the presence of pits, craters and puck marks on the exterior surface of the particles. The EDS spectrum exhibits a strong carbon peak, moderate concentrations of oxygen, aluminum and silicon, with lower amounts of magnesium, phosphorus, sulfur, potassium, calcium, titanium and iron. These characteristics and chemical ratios match coal ash. The high carbon content suggests that this coal ash was incompletely combusted at low temperatures.

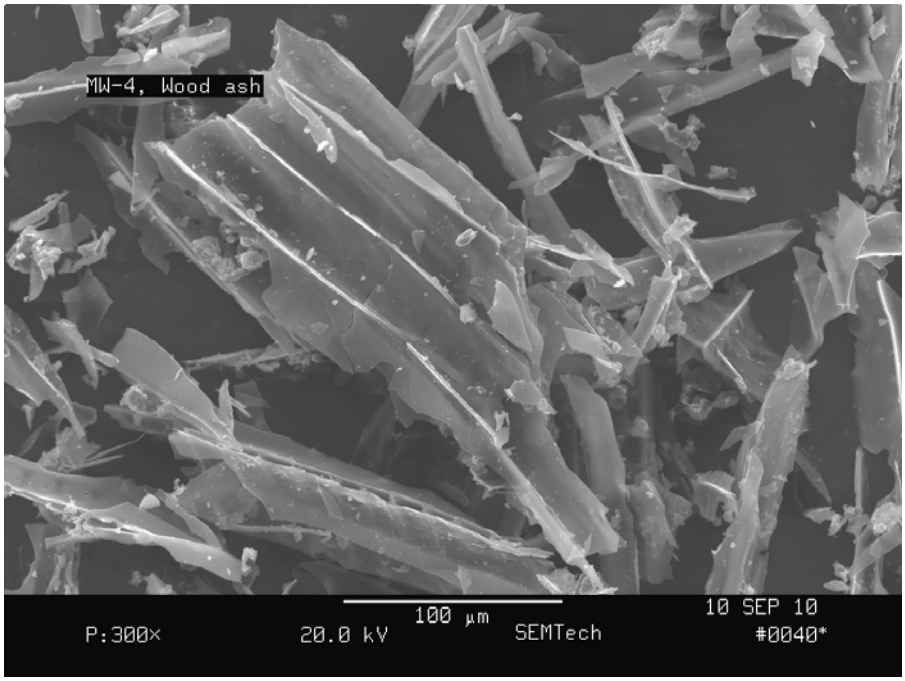

MW-4, Coal ash
100 µm

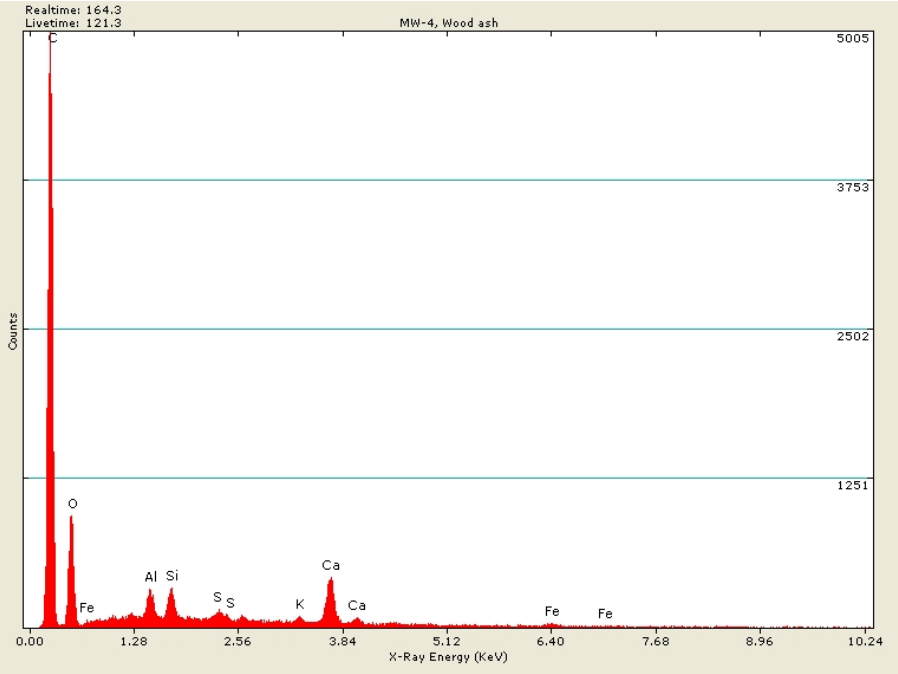

MW-4, Coal ash
100 µm
P:150×
20.0 kV
SEMTech
10 SEP 10
#0044*


Realtime: 222.4
Livetime: 180.0
MW-4, Coal ash
Counts
2760
2070
1380
690
C
O
Si
Al
Fe
Mg
P
S
S
K
Ca
Ca
Ti
Ti
Fe
Fe
0.00
1.28
2.56
3.84
5.12
6.40
7.68
8.96
10.24
X-Ray Energy (KeV)

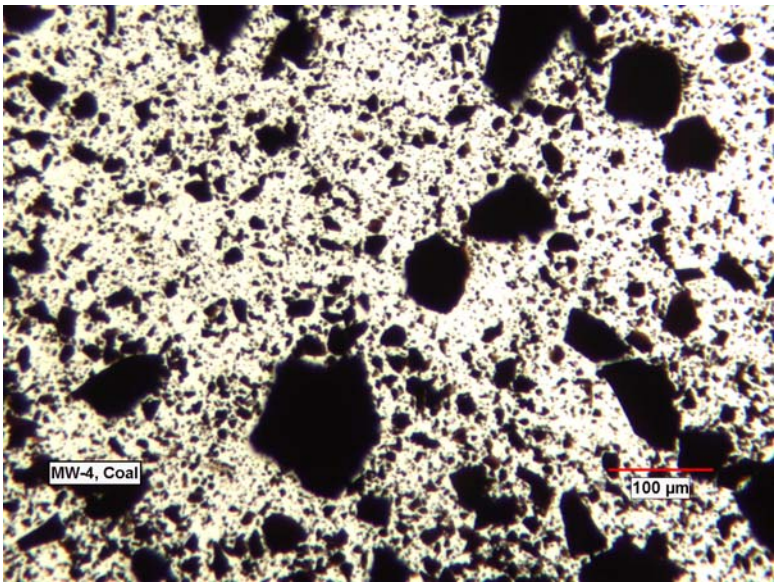
The second particle type exhibits irregularly shaped opaque fibers that did not dissolve in the aromatic oil. By SEM, these fibrous particles frequently show vessels and circular indents or chambers, indicating the cellular structure of the wood. The elemental composition of wood ash may be diverse, and usually depends upon what elements may have diffused into the wood from the surrounding environment. These wood ash fibers showed a very strong carbon peak, a low amount of oxygen, with minor concentrations of aluminum, silicon, sulfur, potassium, calcium and iron. The presence of calcium was due to the presence of calcium carbonate which was derived from the decomposition of calcium oxalate crystals in the bark. These characteristics and elemental ratios match wood ash.

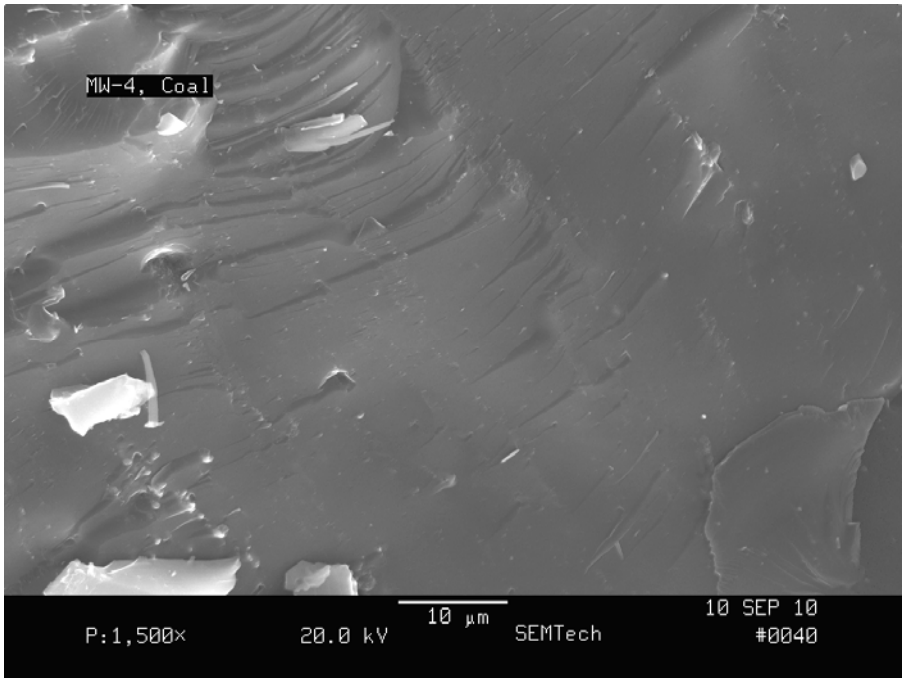


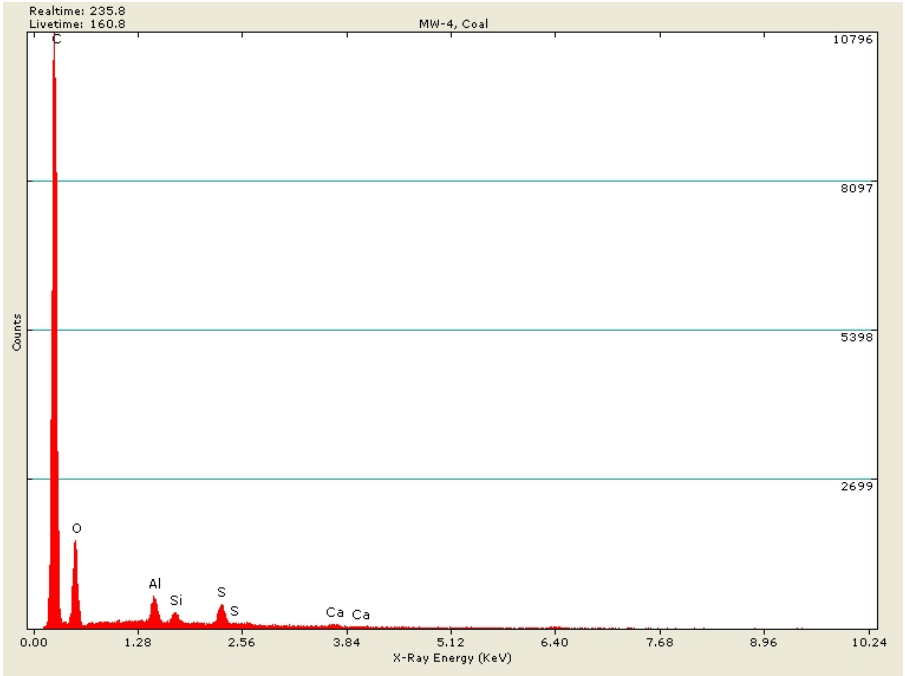




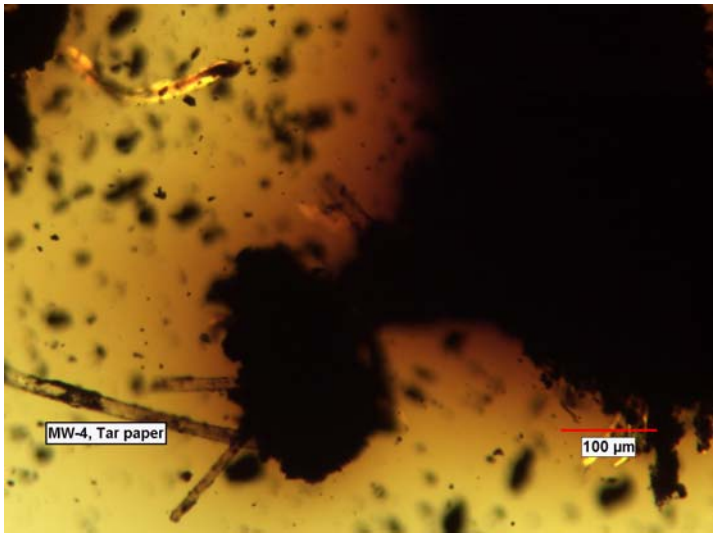
The third particle type appears as amber-brown irregular shaped opaque particles by PLM. The texture was soft when ground in the mortar and pestle. The grains do not dissolve in the index of refraction oil. SEM examination reveals smooth, sharp and curved surfaces which show parallel conchoidal fracture lines. The EDX spectrum demonstrates a very strong carbon peak, a lower amount of oxygen, with minor amounts of aluminum, silicon, sulfur and calcium. These characteristics and elemental ratios match bituminous coal.

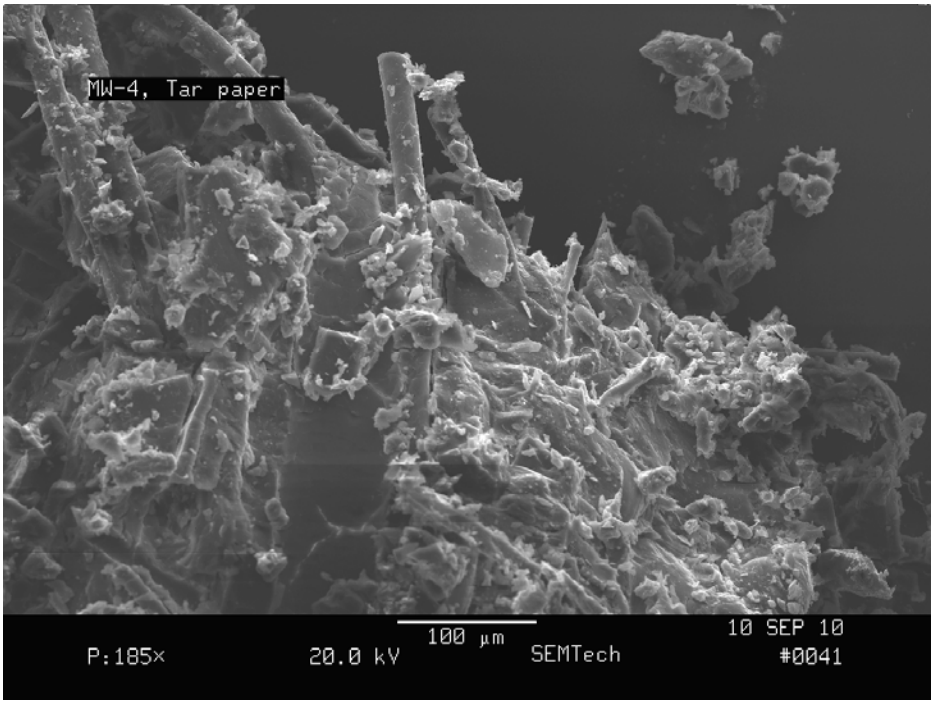


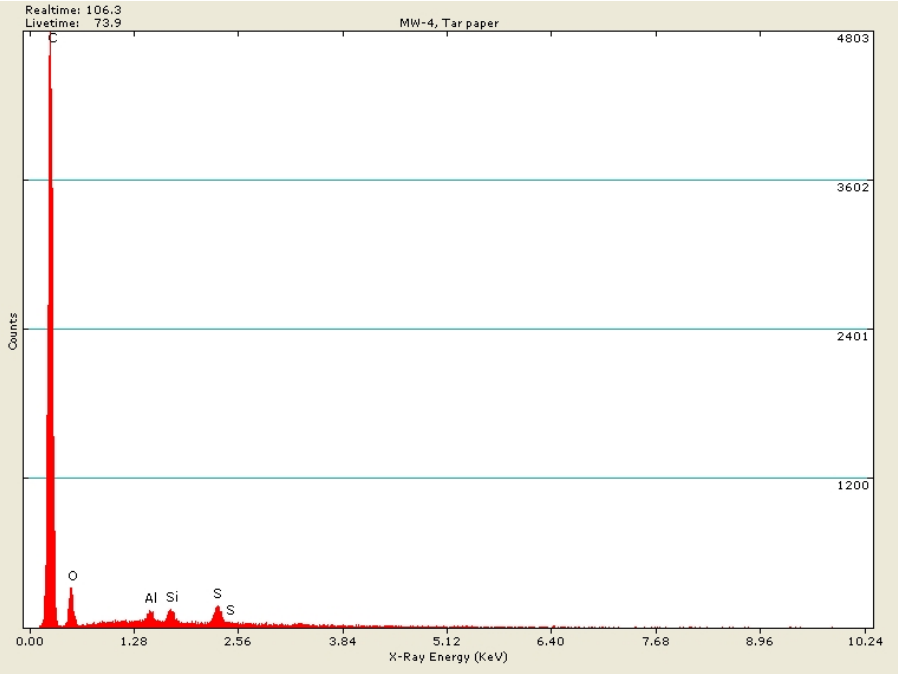

MW-4, Coal
P:1,500×
20.0 kV
10 µm
SEMTech
10 SEP 10
#0040


Realtime: 235.8
Livetime: 160.8
MW-4, Coal
C
O
Al
Si
S
S
Ca
Ca
10796
8097
5398
2699
Counts
0.00
1.28
2.56
3.84
5.12
6.40
7.68
8.96
10.24
X-Ray Energy (KeV)

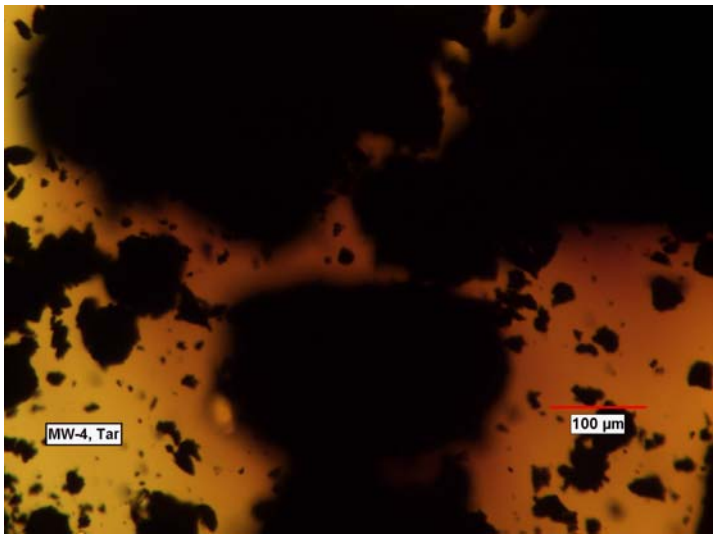
The fourth particle type consisted of tar-like paper. When snapped in half, some fine fibrous strands were emanating from each half. The matrix immediately started to dissolve to an orange/brown color in the index of refraction liquid under the PLM with cellulose-like fibers embedded in the matrix. The SEM examination also showed fibers embedded in the particle mass. The EDX spectrum consisted of a very strong carbon peak, with lower concentrations of oxygen, aluminum, silicon and sulfur. These characteristics and elemental ratios match a tar paper/felt material.

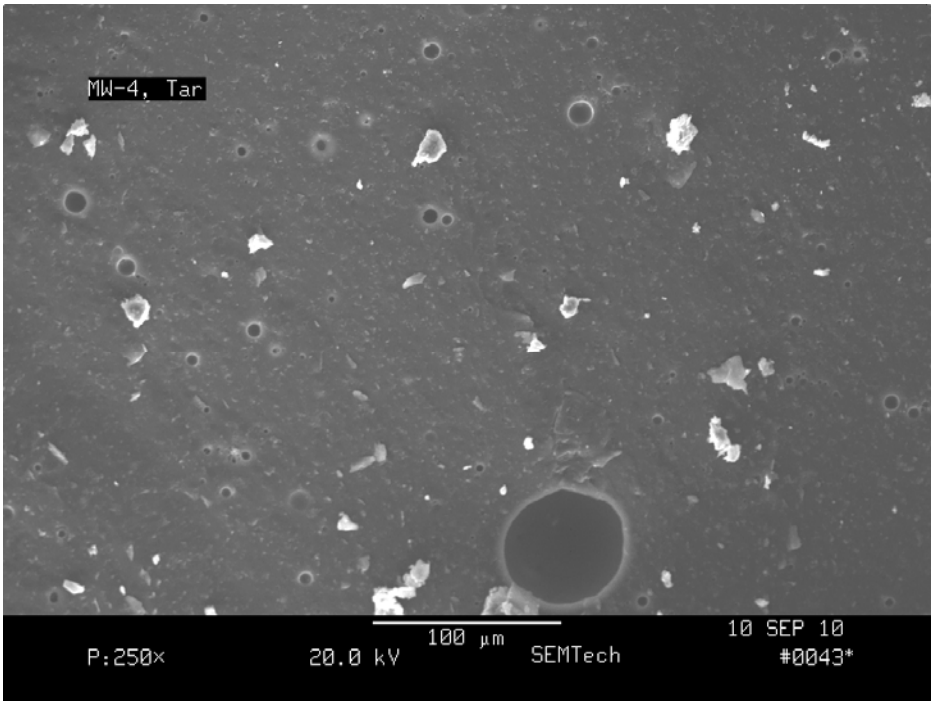


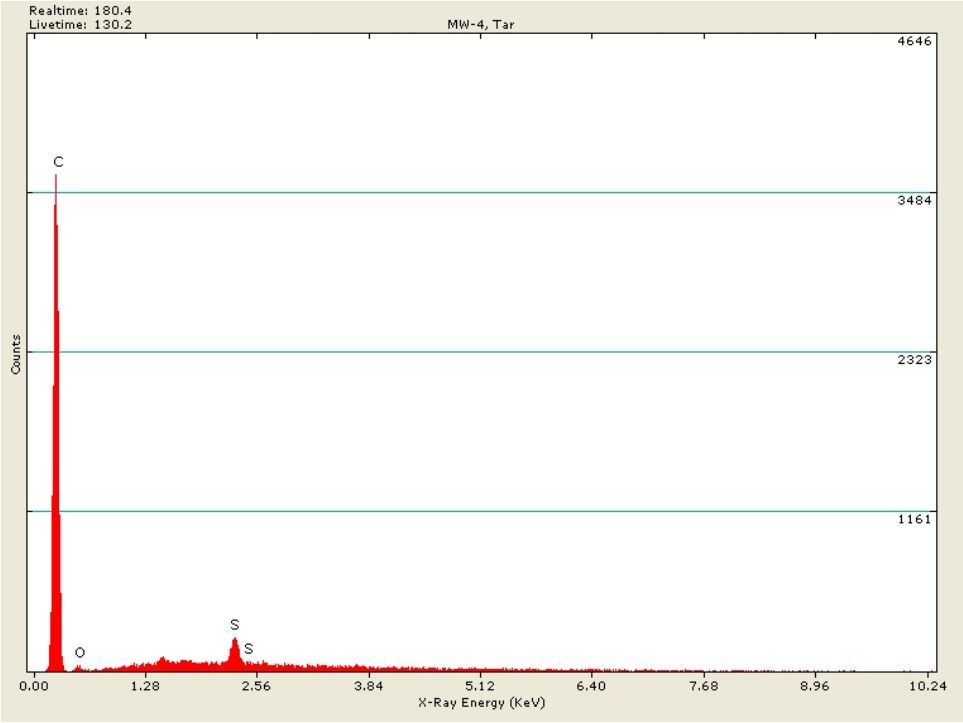




The fifth particle type demonstrated irregular opaque particles without any embedded internal particles which immediately started to dissolve to an orange/brown color in the index of refraction liquid under the PLM. The SEM examination of a cross-section of a circular globule showed a relatively smooth surface with numerous puck marks from the release of gas under pressure. The EDX spectrum consisted of a very strong carbon peak, with a low level of sulfur, and trace of oxygen. These characteristics and elemental ratios match tar, especially coal tar.

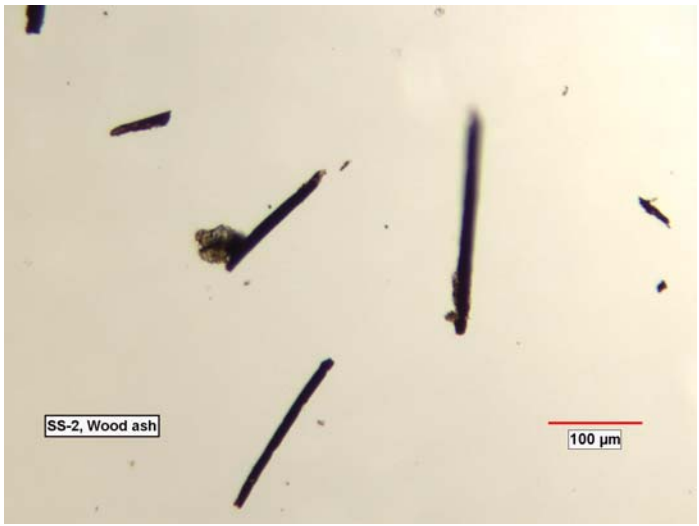


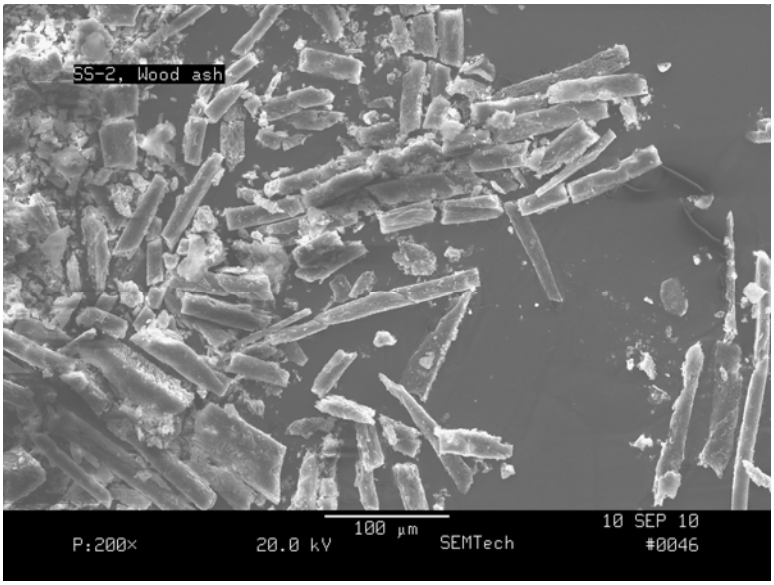

MW-4, Tar
100 µm
P:250×
20.0 kV
SEMTech
10 SEP 10
#0043*

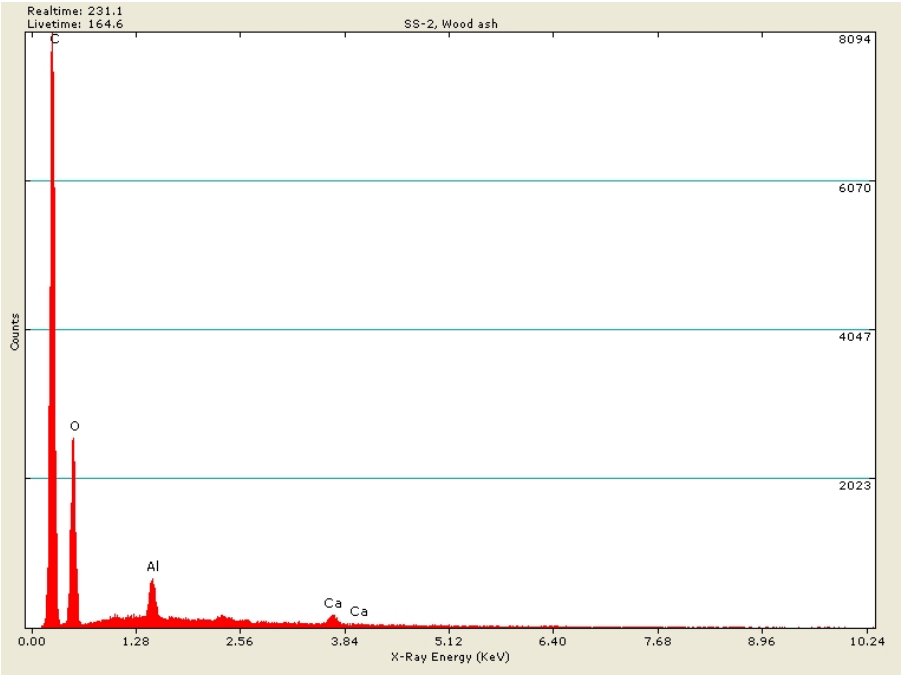

Realtime: 180.4
Livetime: 130.2
MW-4, Tar
4646
3484
2323
1161
Counts
C
O
S
S
0.00
1.28
2.56
3.84
5.12
6.40
7.68
8.96
10.24
X-Ray Energy (KeV)

SS-2, 0'-2':

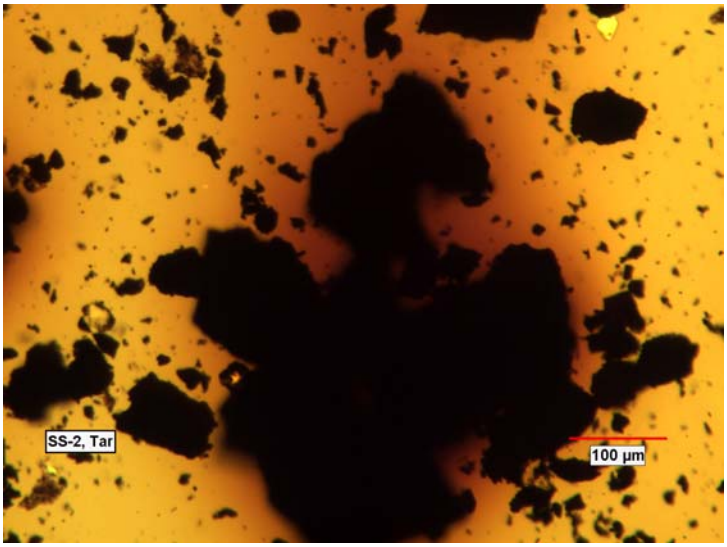
Two particle types were identified in this sample for the coal ash analysis. The first particle type exhibits irregularly shaped opaque fibers that did not dissolve in the aromatic oil. By SEM, these fibrous particles frequently show vessels and circular indents or chambers, indicating the cellular structure of the wood. These wood ash fibers showed a very strong carbon peak, a moderate amount of oxygen, with minor concentrations of aluminum and calcium. The presence of calcium was due to the presence of calcium carbonate which was derived from the decomposition of calcium oxalate crystals in the bark. These characteristics and elemental ratios match wood ash.

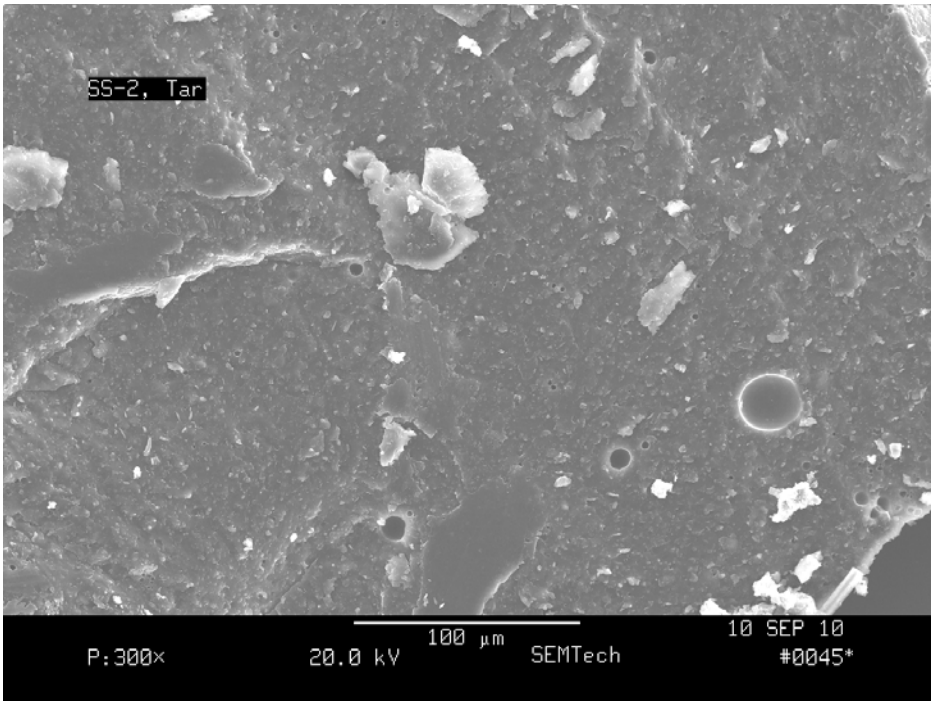


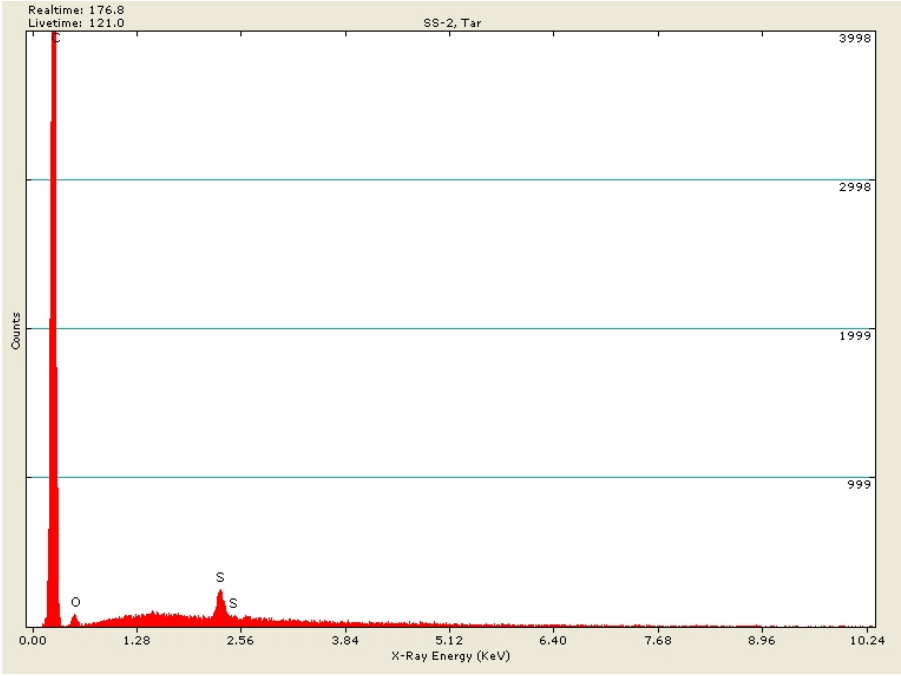




The second particle type demonstrated irregular opaque particles without any embedded internal particles which immediately started to dissolve to an orange/brown color in the index of refraction liquid under the PLM. The SEM examination of a cross-section of a circular globule showed a relatively smooth surface with numerous puck marks from the release of gas under pressure. The EDX spectrum consisted of a very strong carbon peak, with a low level of sulfur, and trace of oxygen. These characteristics and elemental ratios match tar, especially coal tar.




SS-2, Tar
100 µm
P:300×
20.0 kV
SEMTech
10 SEP 10
#0045*


Realtime: 176.8
Livetime: 121.0
SS-2, Tar
C
O
S
S
3998
2998
1999
999
Counts
0.00
1.28
2.56
3.84
5.12
6.40
7.68
8.96
10.24
X-Ray Energy (KeV)

DISCUSSION:

The EDS data, texture and morphology of the grains as seen by the PLM and SEM were consistent for a heavy concentration of coal ash, a trace amount of wood ash, a light to moderate concentration of bituminous coal, a light concentration of tar paper, and a heavy concentration of tar globules which were characteristic of coal tar in sample MW-4.

Sample SS-2 contained a trace of wood ash and a trace of tar, which was characteristic of coal tar.

Should you have further questions, or need additional information, please contact me at any time.

Sincerely,

Ernest T. Dobi, PhD.
Analytical Services Manager

APPENDIX C

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 5, 2010

Bruce Nickelsen
O'Reilly, Talbot & Okun-Westborough
19 West Main Street
Westborough, MA 01581

Project Location: Acton, MA
Client Job Number:
Project Number: 022-23-02
Laboratory Work Order Number: 10J0101

Enclosed are results of analyses for samples received by the laboratory on October 4, 2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Susan M. Burney
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

O'Reilly, Talbot & Okun-Westborough
19 West Main Street
Westborough, MA 01581
ATTN: Bruce Nickelsen

REPORT DATE: 10/5/2010

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 022-23-02

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 10J0101

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Acton, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SS-11	10J0101-01	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-12	10J0101-02	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-13	10J0101-03	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-14	10J0101-04	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-15	10J0101-05	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-16	10J0101-06	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-17	10J0101-07	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-18	10J0101-08	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-19	10J0101-09	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-20	10J0101-10	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-21	10J0101-11	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-22	10J0101-12	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-23	10J0101-13	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-24	10J0101-14	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-25	10J0101-15	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-26	10J0101-16	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-27	10J0101-17	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-28	10J0101-18	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	
SS-29	10J0101-19	Soil	(0-0.5ft)	SM 2540G	
				SW-846 6010B	
SS-30	10J0101-20	Soil	(0-1ft)	SM 2540G	
				SW-846 6010B	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only arsenic and lead results were requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-11 | Sampled: 10/4/2010 10:52

Sample ID: 10J0101-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	7.0	3.1	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 11:53	OP
Lead	50	0.94	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 11:53	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-11 | Sampled: 10/4/2010 10:52

Sample ID: 10J0101-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.8		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-12 | Sampled: 10/4/2010 10:58

Sample ID: 10J0101-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	7.6	3.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:46	OP
Lead	62	0.90	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:46	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-12 | Sampled: 10/4/2010 10:58

Sample ID: 10J0101-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.7		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-13 | Sampled: 10/4/2010 11:08

Sample ID: 10J0101-03

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	6.9	2.6	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:50	OP
Lead	14	0.77	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:50	OP

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-13 | Sampled: 10/4/2010 11:08

Sample ID: 10J0101-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.3		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-14 | Sampled: 10/4/2010 11:14

Sample ID: 10J0101-04

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	5.6	3.1	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:55	OP
Lead	17	0.92	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:55	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-14 | Sampled: 10/4/2010 11:14

Sample ID: 10J0101-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.2		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-15 | Sampled: 10/4/2010 11:20

Sample ID: 10J0101-05

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	8.0	3.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:59	OP
Lead	47	0.91	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 12:59	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-15 | Sampled: 10/4/2010 11:20

Sample ID: 10J0101-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.1		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-16 | Sampled: 10/4/2010 11:26

Sample ID: 10J0101-06

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	6.8	3.5	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:04	OP
Lead	20	1.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:04	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-16 | Sampled: 10/4/2010 11:26

Sample ID: 10J0101-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.8		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-17 | Sampled: 10/4/2010 11:34

Sample ID: 10J0101-07

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	13	3.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:08	OP
Lead	21	0.89	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:08	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-17 | Sampled: 10/4/2010 11:34

Sample ID: 10J0101-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.1		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-18 | Sampled: 10/4/2010 11:52

Sample ID: 10J0101-08

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	8.1	3.5	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:13	OP
Lead	120	1.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:13	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-18 | Sampled: 10/4/2010 11:52

Sample ID: 10J0101-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	77.8		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-19 | Sampled: 10/4/2010 11:57

Sample ID: 10J0101-09

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	6.3	3.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:18	OP
Lead	190	0.90	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:18	OP

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-19 | Sampled: 10/4/2010 11:57

Sample ID: 10J0101-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	81.1		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-20 | Sampled: 10/4/2010 12:02

Sample ID: 10J0101-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	8.7	3.3	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:22	OP
Lead	130	1.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:22	OP

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-20 | Sampled: 10/4/2010 12:02

Sample ID: 10J0101-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.0		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-21 | Sampled: 10/4/2010 12:19

Sample ID: 10J0101-11

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	7.0	3.2	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:27	OP
Lead	75	0.95	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:27	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-21 | Sampled: 10/4/2010 12:19

Sample ID: 10J0101-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.8		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-22 | Sampled: 10/4/2010 12:25

Sample ID: 10J0101-12

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	12	3.1	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:47	OP
Lead	230	0.94	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:47	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-22 | Sampled: 10/4/2010 12:25

Sample ID: 10J0101-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.6		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-23 | Sampled: 10/4/2010 12:59

Sample ID: 10J0101-13

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	13	3.2	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:51	OP
Lead	230	0.95	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:51	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-23 | Sampled: 10/4/2010 12:59

Sample ID: 10J0101-13

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	79.2		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-24 | Sampled: 10/4/2010 13:09

Sample ID: 10J0101-14

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	5.9	2.8	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:56	OP
Lead	51	0.84	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 13:56	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-24 | Sampled: 10/4/2010 13:09

Sample ID: 10J0101-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	86.8		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-25 | Sampled: 10/4/2010 13:15

Sample ID: 10J0101-15

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	200	3.4	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:00	OP
Lead	530	1.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:00	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-25 | Sampled: 10/4/2010 13:15

Sample ID: 10J0101-15

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	73.9		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

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Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-26 | Sampled: 10/4/2010 13:21

Sample ID: 10J0101-16

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	11	2.8	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:05	OP
Lead	49	0.84	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:05	OP

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-26 | Sampled: 10/4/2010 13:21

Sample ID: 10J0101-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	84.3		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-27 | Sampled: 10/4/2010 14:20

Sample ID: 10J0101-17

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	14	3.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:09	OP
Lead	5700	0.90	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:09	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-27 | Sampled: 10/4/2010 14:20

Sample ID: 10J0101-17

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	80.2		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-28 | Sampled: 10/4/2010 14:26

Sample ID: 10J0101-18

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	9.0	3.4	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:14	OP
Lead	750	1.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:14	OP

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-28 | Sampled: 10/4/2010 14:26

Sample ID: 10J0101-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	74.4		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-0.5ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-29 | Sampled: 10/4/2010 15:20

Sample ID: 10J0101-19

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	21	3.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:18	OP
Lead	140	0.91	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:18	OP

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-0.5ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-29 | Sampled: 10/4/2010 15:20

Sample ID: 10J0101-19

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.6		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-30 | Sampled: 10/4/2010 15:28

Sample ID: 10J0101-20

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	29	3.4	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:24	OP
Lead	3200	1.0	mg/Kg dry	1		SW-846 6010B	10/4/10	10/5/10 14:24	OP

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0101

Date Received: 10/4/2010

Field Sample #: SS-30 | Sampled: 10/4/2010 15:28

Sample ID: 10J0101-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	76.6		% Wt	1		SM 2540G	10/5/10	10/5/10 16:01	VAF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
10J0101-01 [SS-11]	B020155	10/05/10
10J0101-02 [SS-12]	B020155	10/05/10
10J0101-03 [SS-13]	B020155	10/05/10
10J0101-04 [SS-14]	B020155	10/05/10
10J0101-05 [SS-15]	B020155	10/05/10
10J0101-06 [SS-16]	B020155	10/05/10
10J0101-07 [SS-17]	B020155	10/05/10
10J0101-08 [SS-18]	B020155	10/05/10
10J0101-09 [SS-19]	B020155	10/05/10
10J0101-10 [SS-20]	B020155	10/05/10
10J0101-11 [SS-21]	B020155	10/05/10
10J0101-12 [SS-22]	B020155	10/05/10
10J0101-13 [SS-23]	B020155	10/05/10
10J0101-14 [SS-24]	B020155	10/05/10
10J0101-15 [SS-25]	B020155	10/05/10
10J0101-16 [SS-26]	B020155	10/05/10
10J0101-17 [SS-27]	B020155	10/05/10
10J0101-18 [SS-28]	B020155	10/05/10
10J0101-19 [SS-29]	B020155	10/05/10
10J0101-20 [SS-30]	B020155	10/05/10

Prep Method: SW-846 3050B-SW-846 6010B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
10J0101-01 [SS-11]	B020143	0.973	50.0	10/04/10
10J0101-02 [SS-12]	B020143	0.985	50.0	10/04/10
10J0101-03 [SS-13]	B020143	1.07	50.0	10/04/10
10J0101-04 [SS-14]	B020143	0.968	50.0	10/04/10
10J0101-05 [SS-15]	B020143	1.02	50.0	10/04/10
10J0101-06 [SS-16]	B020143	0.934	50.0	10/04/10
10J0101-07 [SS-17]	B020143	1.02	50.0	10/04/10
10J0101-08 [SS-18]	B020143	0.920	50.0	10/04/10
10J0101-09 [SS-19]	B020143	1.03	50.0	10/04/10
10J0101-10 [SS-20]	B020143	0.991	50.0	10/04/10
10J0101-11 [SS-21]	B020143	0.985	50.0	10/04/10
10J0101-12 [SS-22]	B020143	0.958	50.0	10/04/10
10J0101-13 [SS-23]	B020143	0.992	50.0	10/04/10
10J0101-14 [SS-24]	B020143	1.03	50.0	10/04/10
10J0101-15 [SS-25]	B020143	0.999	50.0	10/04/10
10J0101-16 [SS-26]	B020143	1.06	50.0	10/04/10
10J0101-17 [SS-27]	B020143	1.04	50.0	10/04/10
10J0101-18 [SS-28]	B020143	0.987	50.0	10/04/10
10J0101-19 [SS-29]	B020143	0.991	50.0	10/04/10
10J0101-20 [SS-30]	B020143	0.974	50.0	10/04/10

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B020143 - SW-846 3050B										
Blank (B020143-BLK1)				Prepared: 10/04/10 Analyzed: 10/05/10						
Arsenic	ND	2.5	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
LCS (B020143-BS1)				Prepared: 10/04/10 Analyzed: 10/05/10						
Arsenic	104	5.2	mg/Kg wet	111		93.8	81.6-118.4			
Lead	97.5	1.6	mg/Kg wet	111		87.8	79.1-120.3			
LCS (B020143-BS2)				Prepared: 10/04/10 Analyzed: 10/05/10						
Lead	0.732	0.76	mg/Kg wet	0.756		96.8	80-120			
LCS Dup (B020143-BSD1)				Prepared: 10/04/10 Analyzed: 10/05/10						
Arsenic	102	5.2	mg/Kg wet	111		92.0	81.6-118.4	2.02	30	
Lead	98.1	1.6	mg/Kg wet	111		88.4	79.1-120.3	0.632	30	
Duplicate (B020143-DUP1)		**Source: 10J0101-01**		Prepared: 10/04/10 Analyzed: 10/05/10						
Arsenic	6.64	3.2	mg/Kg dry		6.96			4.66	35	
Lead	49.2	0.95	mg/Kg dry		50.1			1.83	35	
Matrix Spike (B020143-MS1)		**Source: 10J0101-01**		Prepared: 10/04/10 Analyzed: 10/05/10						
Arsenic	39.8	3.2	mg/Kg dry	31.6	6.96	104	75-125			
Lead	78.0	0.95	mg/Kg dry	31.6	50.1	88.3	75-125			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010B in Soil	
Arsenic	CT,NH,NY
Lead	CT,NH,NY,AIHA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2011
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2011
RI	Rhode Island Department of Health	LAO00112	12/30/2010
NC	North Carolina Div. of Water Quality	652	12/31/2010
NJ	New Jersey DEP	MA007 NELAP	06/30/2011
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2011

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Email: info@contestlabs.com
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CHAIN OF CUSTODY RECORD

1050101

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Company Name: O'Reilly Talbot & Okun
Address: 19 W. Main St. #205
Westborough MA 01581
Attention: Bruce Nickelsen
Project Location: Acton MA
Sampled By: Andy Rolinger

Telephone: (508) 366-6409
Project # 0022-23-02
Client PO #

DATA DELIVERY (check one):
☒ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #: 508-366-9826
Email: nickelsen@oto-env.com
Format: ☐ EXCEL ☒ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

State Form Required?
☐ yes ☐ no

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	# of containers	**Preservation	-Cont. Code	total lead	total arsenic
SS-11	(0'-1')	-01	10/4/10	10:52	X		S	U	1	A	A	X	X
SS-12	(0'-1')	-02	10/4/10	10:58	X		S	U	1	A	A	X	X
SS-13	(0'-1')	-03	10/4/10	11:08	X		S	U	1	A	A	X	X
SS-14	(0'-1')	-04	10/4/10	11:14	X		S	U	1	A	A	X	X
SS-15	(0'-1')	-05	10/4/10	11:20	X		S	U	1	A	A	X	X
SS-16	(0'-1')	-06	10/4/10	11:26	X		S	U	1	A	A	X	X
SS-17	(0'-1')	-07	10/4/10	11:34	X		S	U	1	A	A	X	X
SS-18	(0'-1')	-08	10/4/10	11:52	X		S	U	1	A	A	X	X

ANALYSIS REQUESTED

-Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

Client Comments:

Laboratory Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 10/4/10	
Received by: (signature)	Date/Time: 10/4/10 5:30	
Relinquished by: (signature)	Date/Time: 10/4/10 1920	
Received by: (signature) 5.4°C 10/4/10	Date/Time:	

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH *
☒ 24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? _____
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's: _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other____

**Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other____
X = Na hydroxide
T = Na thiosulfate

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

10J0101

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Company Name: OTO
Address: Westborough MA
Attention: Bruce Nickelsen
Project Location: Acton MA
Sampled By: Andy Bolinger

Telephone: (508) 366-6409
Project # 022-23-02
Client PO #

DATA DELIVERY (check one):
☒ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #: 508 366-9826
Email: nickelsen@oto-env.com
Format: ☐ EXCEL ☒ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

State Form Required?
☐ yes ☐ no

ANALYSIS REQUESTED

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	Total Lead	Total Arsenic
SS-19	(0'-1')	-09	10/4/10	11:57	X		S	U	X	X
SS-20	(0'-1')	-10	10/4/10	12:02	X		S	U	X	X
SS-21	(0'-1')	-11	10/4/10	12:19	X		S	U	X	X
SS-22	(0'-1')	-12	10/4/10	12:25	X		S	U	X	X
SS-23	(0'-1')	-13	10/4/10	12:59	X		S	U	X	X
SS-24	(0'-1')	-14	10/4/10	13:09	X		S	U	X	X
SS-25	(0'-1')	-15	10/4/10	13:15	X		S	U	X	X
SS-26	(0'-1')	-16	10/4/10	13:21	X		S	U	X	X

# of containers
**Preservation
~Container

~Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

Client Comments:

Laboratory Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:

H - High; **M** - Medium; **L** - Low; **C** - Clean; **U** - Unknown

	Date/Time
Relinquished by: (signature)	10/4/10
Received by: (signature)	10/4/10
Relinquished by: (signature)	10/4/10 1920
Received by: (signature) 5.4°C 10/4/10	

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH *
☒ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? _____
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's: _____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other

****Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other
X = Na hydroxide
T = Na thiosulfate

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

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CHAIN OF CUSTODY RECORD

105010

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Company Name: OTO
Address: Westborough MA
Attention: Bruce Nickelsen
Project Location: Acton MA
Sampled By: Andy Bolinger

Telephone: (508) 366-6409
Project # D022-23-02
Client PO #

DATA DELIVERY (check one):
☒ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #: 508-366 9826
Email: nickelsen@oto-env.com
Format: ☐ EXCEL ☐ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes ____ proposal date

State Form Required?
☐ yes ☐ no

ANALYSIS REQUESTED

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	full arsenic	full lead	PAHs by 8270	# of containers	**Preservation	~Container Size
SS-27	(0'-1')	-17	10/4/10	14:20	X		S	U	X	X	☒			
SS-28	(0'-1')	-18	10/4/10	14:26	X		S	U	X	X	☒			
SS-29	(0'-0.5')	-19	10/4/10	15:20	X		S	U	X	X				
SS-30	(0'-1')	-20	10/4/10	15:38	X		S	U	X	X				

~Cont. Code: A=amber glass, G=glass, P=plastic, ST=sterile, V=vial, S=summa can, T=tedlar bag, O=Other

Client Comments: Hold PAH Samples

Laboratory Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; **M** - Medium; **L** - Low; **C** - Clean; **U** - Unknown

Relinquished by: (signature)	Date/Time:
	10/4/10
Received by: (signature)	Date/Time:
	10/4/10 5:35 pm
Relinquished by: (signature)	Date/Time:
	10/4/10 1920
Received by: (signature)	Date/Time:
5.4°C 10/4/10	1920

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH *
☒ 24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? ____
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's: ____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other ____

****Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other ____
X = Na hydroxide
T = Na thiosulfate

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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Sample Receipt Checklist

39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

CLIENT NAME: O'Reilly Talbot + ok. OTO RECEIVED BY: AB DATE: 10/4/10

1) Was the chain(s) of custody relinquished and signed? (Yes) No

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 5.4°C

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any samples "On Hold"? Yes (No) Stored where: _____

7) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)

Who was notified _____ Date _____ Time _____

8) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	22
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Other glass jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic		Air Cassette	
40 mL Vial - type listed below		SOC Kit	
Colisure / bacteria bottle		Tubes	
Dissolved Oxygen bottle		Non-ConTest Container	
Flashpoint bottle		Other	
Encore		PM 2.5 / PM 10	
Perchlorate Kit		PUF Cartridge	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No (N/A) _____

Do all samples have the proper Base pH: Yes No (N/A) _____

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 10J0101
Project Location: Acton, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

10J0101-01 thru 10J0101-20

Matrices: Soil

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A (X)	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]
	A response to questions G, H and I below is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]
	***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**		
H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes	☑ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:  Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 10/05/10

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 7, 2010

Bruce Nickelsen
O'Reilly, Talbot & Okun-Westborough
19 West Main Street
Westborough, MA 01581

Project Location: Acton, MA
Client Job Number:
Project Number: 022-23-02
Laboratory Work Order Number: 10J0167

Enclosed are results of analyses for samples received by the laboratory on October 6, 2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Susan M. Burney
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

O'Reilly, Talbot & Okun-Westborough
19 West Main Street
Westborough, MA 01581
ATTN: Bruce Nickelsen

REPORT DATE: 10/7/2010

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 022-23-02

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 10J0167

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Acton, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Composite	10J0167-01	Soil	(0-1ft)	SW-846 1311 SW-846 6010B	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 6010, only TCLP arsenic and lead were requested and reported.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Acton, MA | Sample Description: (0-1ft) | Work Order: 10J0167

Date Received: 10/6/2010

Field Sample #: Composite | Sampled: 10/4/2010 11:52

Sample ID: 10J0167-01

Sample Matrix: Soil

TCLP - Metals Analyses

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	ND	0.010	mg/L	1		SW-846 6010B	10/7/10	10/7/10 14:50	OP
Lead	1.2	0.010	mg/L	1		SW-846 6010B	10/7/10	10/7/10 14:50	OP

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Sample Extraction Data

Prep Method: SW-846 3010A-SW-846 6010B **Leachates were extracted on 10/6/2010 per SW-846 1311 in Batch B020269**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
10J0167-01 [Composite]	B020298	50.0	50.0	10/07/10

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QUALITY CONTROL

TCLP - Metals Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B020298 - SW-846 3010A										
Blank (B020298-BLK1)				Prepared & Analyzed: 10/07/10						
Arsenic	ND	0.010	mg/L							
Lead	ND	0.010	mg/L							
LCS (B020298-BS1)				Prepared & Analyzed: 10/07/10						
Arsenic	0.586	0.010	mg/L	0.500		117	80-120			
Lead	0.472	0.010	mg/L	0.500		94.3	80-120			
LCS Dup (B020298-BSD1)				Prepared & Analyzed: 10/07/10						
Arsenic	0.585	0.010	mg/L	0.500		117	80-120	0.0540	20	
Lead	0.481	0.010	mg/L	0.500		96.1	80-120	1.91	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010B in Water	
Arsenic	NY,CT
Lead	NY,CT

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2011
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2011
RI	Rhode Island Department of Health	LAO00112	12/30/2010
NC	North Carolina Div. of Water Quality	652	12/31/2010
NJ	New Jersey DEP	MA007 NELAP	06/30/2011
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2011

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

105010l

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Company Name: O'Reilly Talbot & Okun
Address: 19 W. Main St. #205
Westborough MA 01581
Attention: Bruce Nickelsen
Project Location: Acton MA
Sampled By: Andy Bolinger

Telephone: (508) 366-6409
Project # 0022-23-02
Client PO #

DATA DELIVERY (check one):
☒ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #: 508-366-9826
Email: nickelsen@oto-env.com
Format: ☐ EXCEL ☒ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

State Form Required?
☐ yes ☐ no

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Date Sampled Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	# of containers	**Preservation	~Cont.Code	total lead	total arsenic	TCLP As, Pb	COMPOSITE	10 SAMPLES		
									1	-	A							
SS-11	(0'-1')	-01	10/4/10	10:52	X		S	U				X	X					
SS-12	(0'-1')	-02	10/4/10	10:58	X		S	U				X	X				*	
SS-13	(0'-1')	-03	10/4/10	11:08	X		S	U				X	X					
SS-14	(0'-1')	-04	10/4/10	11:19	X		S	U				X	X					
SS-15	(0'-1')	-05	10/4/10	11:20	X		S	U				X	X					
SS-16	(0'-1')	-06	10/4/10	11:26	X		S	U				X	X					
SS-17	(0'-1')	-07	10/4/10	11:34	X		S	U				X	X					
SS-18	(0'-1')	-08	10/4/10	11:52	X		S	U				X	X		@			

ANALYSIS REQUESTED

~Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

Client Comments:

Laboratory Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)		Date/Time: 10/4/10
Received by: (signature)	10/4/10	Date/Time: 5:30
Relinquished by: (signature)	10/4/10	Date/Time: 1920
Received by: (signature)	5.4°c 10/4/10	Date/Time: 1920

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH *
☒ 24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? _____
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's: _____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

****Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other_____
X = Na hydroxide
T = Na thiosulfate

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

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Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

10J0101

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Company Name: OTO
Address: Westborough MA
Attention: Bruce Nickelsen
Project Location: Acton MA
Sampled By: Andy Bolinger

Telephone: (508) 366-6409
Project # 022-23-02
Client PO #

DATA DELIVERY (check one):
☒ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #: 508 366-9826
Email: nickelsen@oto-env.com
Format: ☐ EXCEL ☒ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes) ☐ yes _____ proposal date
State Form Required? ☐ yes ☐ no

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	# of containers	**Preservation	~Cont.Code	ANALYSIS REQUESTED: total lead	total arsenic	TCLP As, Pb	Composite 10 Samples						
									1	-	A										
SS-19	(0'-1')	-09	10/4/10	11:57	X		S	U				X	X	C							
SS-20	(0'-1')	-10	10/4/10	12:02	X		S	U				X	X	C					*		
SS-21	(0'-1')	-11	10/4/10	12:19	X		S	U				X	X								
SS-22	(0'-1')	-12	10/4/10	12:25	X		S	U				X	X	C							
SS-23	(0'-1')	-13	10/4/10	12:59	X		S	U				X	X	C							
SS-24	(0'-1')	-14	10/4/10	13:09	X		S	U				X	X								
SS-25	(0'-1')	-15	10/4/10	13:15	X		S	U				X	X	C							
SS-26	(0'-1')	-16	10/4/10	13:21	X		S	U				X	X								

Client Comments:

Laboratory Comments:
COMPOSITE SAMPLES MARKED BY "C" AND ANALYZE TCLP As, Pb 24hr.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; **M** - Medium; **L** - Low; **C** - Clean; **U** - Unknown

Relinquished by: (signature)	Date/Time:
	10/4/10
Received by: (signature) 10/4/10	Date/Time:
Relinquished by: (signature) 10/4/10	Date/Time: 1920
Received by: (signature) 5.4°c 10/4/10	Date/Time: 1920

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH *
☒ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? _____
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's: _____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other

****Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other
X = Na hydroxide
T = Na thiosulfate

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Phone: 413-525-2332
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Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

105010

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Company Name: OTO
Address: Westborough MA
Attention: Bruce Nickelsen
Project Location: Actor MA
Sampled By: Andy Goliger

Telephone: (508) 366-6409
Project # D022-23-02
Client PO #

DATA DELIVERY (check one):
☒ FAX ☒ EMAIL ☐ WEBSITE CLIENT
Fax #: 508-366 9826
Email: nickelsen@oto.com
Format: ☐ EXCEL ☐ PDF ☐ GIS KEY ☐ OTHER

Proposal Provided? (For Billing purposes) ☐ yes ____ proposal date
State Form Required? ☐ yes ☐ no

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Comp-osite	Grab	*Matrix Code	Conc. Code	# of containers	**Preservation	-Cont. Code	total arsenic	total lead	PAHs by 8270	TCLP As, Pb	Corrosivity, Ignitability
SS-27	(0'-1')	-17	10/4/10	14:20	X		S	U	1	I	A	X	X	☒	C	
SS-28	(0'-1')	-18	10/4/10	14:26	X		S	U	1	I	A	X	X	☒	C	
SS-29	(0'-0.5')	-19	10/4/10	15:20	X		S	U	1	I	A	X	X		C	
SS-30	(0'-1')	-20	10/4/10	15:28	X		S	U	1	I	A	X	X		C	

ANALYSIS REQUESTED

-Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

Client Comments: Hold PAH Samples

Laboratory Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
	10/4/10
Received by: (signature)	Date/Time:
	10/4/10 1535
Relinquished by: (signature)	Date/Time:
	10/4/10 1920
Received by: (signature)	Date/Time:
5.4°C	10/4/10 1920

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH *
☒ 24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations? ____
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's: ____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
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SL = sludge
O = other

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I = Iced
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S = Sulfuric Acid
B = Sodium bisulfate
O = Other
X = Na hydroxide
T = Na thiosulfate

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certifiec