



H-1416  
August 23, 2011

Eric Vanderboom  
U.S. Environmental Protection Agency  
Office of Site Remediation & Restoration  
Emergency Planning & Response Branch  
Emergency Response & Removal Section I  
5 Post Office Sq., Suite 100  
OSRR02-2  
Boston, MA 02109-3912

Re: **Removal Actions –AOC Summary Report  
Former Tombarello Property – Marston Street, Lawrence, Massachusetts  
CERCLA Docket No. 1-2011-0033**

Dear Mr. Vanderboom:

The following letter has been prepared by Tighe & Bond on behalf of First Lawrence Financial, LLC's (FLF) to summarize environmental response actions that were completed at the Tombarello property located at 207 Marston Street in Lawrence, Massachusetts.

FLF conducted remedial activities at the site in accordance with the actions outlined in the EPA's "Administrative Settlement Agreement and Order on Consent for Removal Actions (AOC)" for CERCLA Docket No. 1-2011-0033.

A Site Locus, an Orthophotograph Site Plan and Detail Plan (includes Excavation Area Detail, Soil Stabilization Area Detail and Haybale/Silt Fence Detail) are provided as Figures 1 through 3 in Appendix A for reference. Photographs of removal action activities are included in Appendix B.

The required removal actions were conducted by Charter Environmental, Inc (Charter) of Boston, Massachusetts. The following actions as required by the AOC were conducted at the property between April 28, 2011 and May 27, 2011 (Note - Final site restoration was completed by June 29<sup>th</sup> to allow for EPA to complete their response actions):

- Preparation of a site specific Health & Safety Plan (HASP) by Charter Environmental, which outlined measured for decontamination of working personnel and equipment. The HASP, dated April 23, 2011 was provided to the EPA prior to initiation of site activities.
- Clearing of trees located within the excavation area. With EPA's approval, removed trees were chipped on-site and added to existing mulch stockpiles that were previously generated by the EPA. Some of the material was spread throughout the site as a dust control measure to support construction vehicle traffic. Additional dust control measures included applying water to areas of the site with construction traffic. Smaller tree stumps generated during tree clearing activities were placed in the soil consolidation area. Larger tree stumps remain stockpiled within the central portion of the property.
- Dust monitoring during site activities included measuring dust levels upwind and downwind and along the parameter of the site with a DATARAM and photoionization



1911-2011

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detector (PID). A table outlining the dust monitoring results provided by Charter is included in Appendix C. Select working personnel were also equipped with a personal air sampling cartridge to monitor PCB exposure during a typical 8-hour work day. Sample cartridges were placed directly on Charter personnel within the area of their breathing zone. Sample collection and analysis was performed by Axiom Environmental Engineers (Axiom) of Wakefield, Massachusetts. A copy of Axiom's findings of the sampling is included in Appendix C. As outlined in their report, Axiom concluded that workers were not exposed to levels of PCBs that would be deemed detrimental to one's health according to the Occupational Safety and Health Administration (OSHA) exposure levels. No detectable concentrations of PCBs or metals were noted in the the air samples collected.

- Excavation of a 15' x 36' area of petroleum stained soil located on the southern portion of the site within the proposed soil consolidation area. Soils were excavated to a depth of 6 inches below surface grade and stockpiled on-site. The petroleum soil was located beneath the excavator within the proposed soil consolidation area. Approximately 10 cubic yards of soil were removed during the excavation activities. The original concept contemplated removing the stockpile from the property as outlined in the Scope of Work (SOW). However, with EPA approval, it was determined that removal of the small pile of soil from the site was premature as the majority of the site is contaminated and additional response actions are necessary to address site contamination. Consistent with the management approach for the other excavated soil, the stockpile was placed on filter fabric, covered with filter fabric, loamed and seeded.
- Removal of 65' x 20' x 1' reinforced concrete slab located within soil consolidation area and stockpiled on-site as shown on Figure 2.
- Preparation of soil consolidation area. The soil consolidation area is depicted on Figure 3 and encompasses an approximate 150' x 150' area located on the southern portion of the property. A layer of non-biodegradable filter fabric with overlapping 3 foot seams was placed prior to placement of excavated soils. The soil consolidation area was also surrounded with staked haybales.
- Removal of contaminated soil to one-foot below surface grade from a 600' x 50' area behind the Hoffman Avenue properties. Given the measurements of the excavation, approximately 1,100 cubic yards of soil were excavated as part of the required removal actions. Excavated soils were relocated onsite to an approximate 150' x 150' consolidation area located on the southern portion of the property. The soil was then stockpiled within the consolidation area and was covered with non-biodegradable filter fabric, followed by 4 inches of loam and hydroseeded at the completion of removal actions.
- Post-Excavation soil samples were collected from the base of the 600' x 50' excavation at the completion soil removal activities. Soils were collected in the manner outlined in the Field Sample Collection and Laboratory Protocol letter submitted to the EPA on April 22, 2011. Fifteen composite soil samples were collected from the excavation for documentation purposes of soil conditions at the completion of removal actions outlined in the AOC. The samples were submitted to Alpha Analytical Laboratory (Alpha) of Westborough, Massachusetts for PCB and RCRA-8 metals analysis. Table 1 in Appendix D summarizes the analytical results. The complete analytical reports for the post-excavation samples are included in Appendix D.

As shown in Table 1, the average PCB concentration for the excavation area was 3.45 ppm, which is slightly above the Method 2, direct contact soil standard of 2 ppm for soil category S-1 and 3 ppm for soil categories S-2 and S-3. The average PCB concentrations was also well below the low occupancy EPA standard for PCBs of 25 ppm.

The average results for the metals detected within the excavation area were all below the applicable Method 2, S-2/S-3 direct contact soil standards. Cadmium was the only metal that slightly exceeded the Method 2, S-1 direct contact soil standard.

- Placement of a non-biodegradable filter fabric on the base of the completed excavation with 3 foot overlapping seams. The excavation was then backfilled with common borrow which was delivered to the site from an off-site source. An approximate 3 inch layer of loam was placed on top of a portion of the backfilled area measuring 600' x 30' and then hydroseeded. The EPA requested that no loam or hydroseed be applied to the remaining 600' x 20' area until EPA's soil removal activities were completed at the adjacent Hoffman Avenue residential properties. The 600' x 20' area remained as an access roadway for activities being conducted by the EPA at those properties. The 600' x 20' area was loamed and hydroseeded on June 29, 2011 at the completion of EPA removal actions.
- A sample of the common borrow and loam backfill were submitted to Alpha for PCB and RCRA-8 metals analysis. The results were also provided to EPA. Results of the analysis indicated that no PCBs were detected in the either media above the minimum laboratory detection limits (MDLs) and metal concentrations detected were consistent with naturally occurring levels and also less than applicable Method 2 direct contact soil standards for soil category S-1 established in the MCP. Table 2 in Appendix D summarizes the analytical results. The complete Alpha analytical report is included in Appendix D.
- The excavation area was re-graded to an even height with the adjacent Hoffman Avenue properties. A berm was constructed along the northernmost portion of the backfilled area to direct potential stormwater away from the adjacent residential properties.
- Haybale and silt fencing was placed on excavated edge of fence line following placement of clean fill and berm in that area. Haybales and silt fencing was placed on top of the constructed berm.
- Miscellaneous oil and hazardous material (OHM) containers that were consolidated on site by the EPA were removed. Shipping documents for the OHM containers that were removed from the site are included in Appendix E. It should be noted that the larger stainless steel propane and oxygen tanks were removed by the tank owner (Steven Erb).
- Repairs were made to the existing fencing along Route 495 and a section of fencing abutting the residential properties along the northwest portion of the site. The repairs along the eastern edge abutting Route 495 included adding a section of fence to match existing. The repair of fence that was abutting the residual property included reattaching the chain link fence to the fence post. The location of each repair area is shown on Figure 3.
- Signs indicating the property was contaminated were placed approximately every 100 feet on existing fencing along the western (Marston Street), southern (recreational field) and eastern (Route 495) portions of the property. Signage was also installed on posts every 100 feet along the boundary of the abutting waste management facility where an existing fence did not exist.

- Although not outlined in the AOC, additional activities that occurred at the site concurrent with the AOC activities included removal of miscellaneous equipment and tools from the property by the owner of these materials (Steven Erb). Equipment and/or tools that had the potential to have been in contact with PCB impacted soil on the property were dry-decontaminated (removal of dusts and debris) and wipe sampled for PCB content prior to removal from the property. Wipe samples for equipment and materials sampled were submitted to Alpha for PCB analysis. Results of the analysis indicated that PCBs were not detected on any of the equipment and materials to be removed by Steven Erb. Table 3 in Appendix D summarizes the analytical results. The complete analytical report is included in Appendix D. Mr. Erb's activities were observed by Tighe & Bond.

### **Costs Incurred Complying with AOC**

The AOC requires that the summary report include construction costs incurred throughout the duration of the project. A breakdown of costs incurred is included below:

- ***Charter Environmental***
  - Site Preparation - \$44,500
  - Excavation Activities - \$60,000
  - Construction of Soil Consolidation Area - \$12,000
  - Hydroseed - \$19,922.10
  - Off-Site Removal of OHM Containers - \$15,000
  - Sign Installations - \$12,000
  - Tighe & Bond Costs/Monitoring, Compliance Reporting - \$40,000

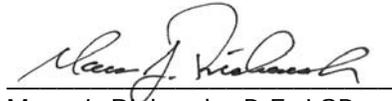
**TOTAL = \$203,422.10**

Copies of Charter's final invoice is included in Appendix E.

**Certification Statement**

The AOC requires that the final report includes the following certification statement which is to be signed and agreed to by a person who “supervised or directed the preparation of the Final AOC Report”.

*“Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”*

  
\_\_\_\_\_  
Marc J. Richards, P.E, LSP

If you have any questions regarding this summary letter please do not hesitate to contact Doreen M. Zankowski, Esq. at 617-378-4222 or Marc Richards at (508) 471-9621.

Very truly yours,

**TIGHE & BOND, INC.**

  
Marc J. Richards, P.E., LSP  
Senior Project Manager/Associate

Copy: Doreen Zankowski – Hinckley, Allen & Snyder LLP  
FLF

## **Appendices**

Appendix A Figures:

Figure 1 – Site Locus  
Figure 2 – Site Plan  
Figure 3 – Site Details  
Site sketch – fence repair location

Appendix B Photographs

Appendix C Dust Monitoring Information

Air Monitoring Log – Charter Environmental  
Worker Personal Air Sampling – Axiom Partners

Appendix D Data Tables

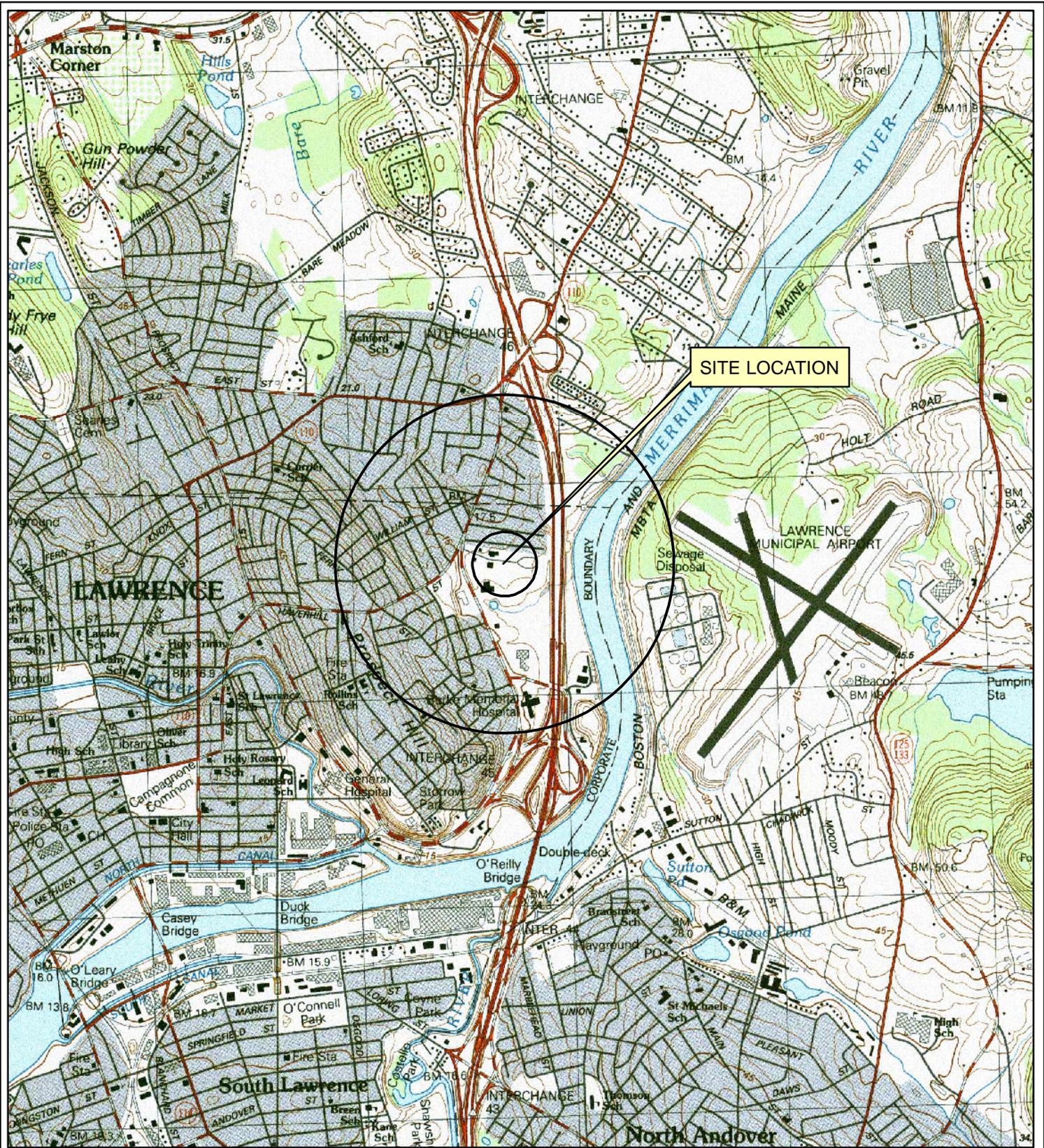
Table 1 – Post Excavation Soil Sample Results  
Table 2 – Backfill and Loam Soil Sample Results  
Table 3 – Wipe Sample Results  
Laboratory Analytical Reports

Appendix E Shipping documentation for oil/hazardous material containers

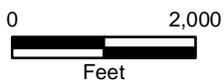
Charter Environmental Final Invoice



# Tighe & Bond



1:25,000



Based on USGS Topographic Map for Lawrence, MA Quadrangle. Revised 1987  
Circles indicate 500-foot and half-mile radii



## FIGURE 1 SITE LOCUS MAP

Tombarello Site  
207 Marston Street  
Lawrence, Massachusetts

**Tighe & Bond**

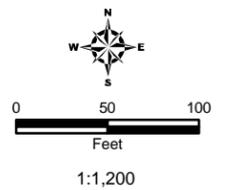
August 2011

**FIGURE 2  
ORTHOPHOTOGRAPH**

**LEGEND**

- Excavation Area
- Soil Stabilization Area
- Property Boundary

**LOCUS MAP**



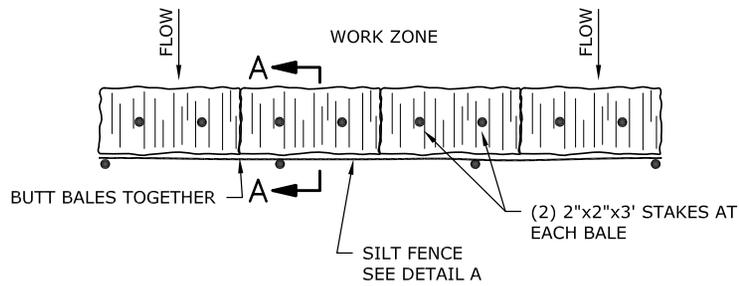
**NOTES**

1. Based on MassGIS Color Orthophotography (April 2009) Orthophoto Sheet ID # 22979410\_15
2. Parcels provided by MassGIS

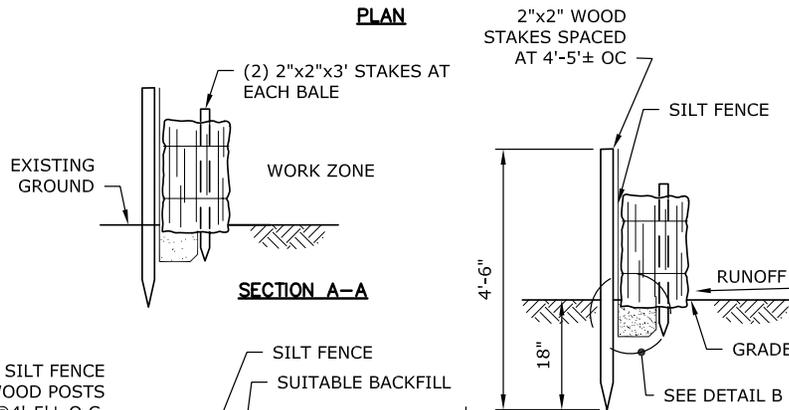
Tombarello Site  
207 Marston Street  
Lawrence, Massachusetts

August 2011



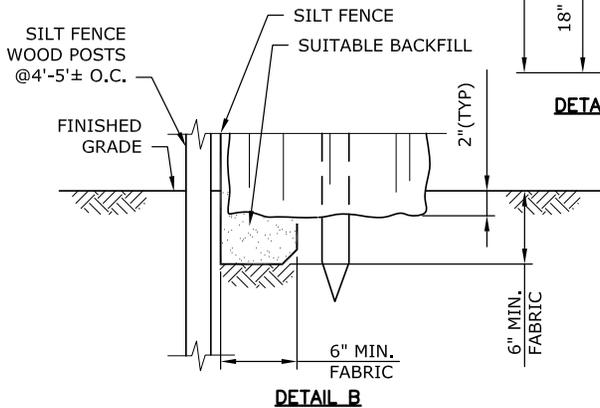


**PLAN**



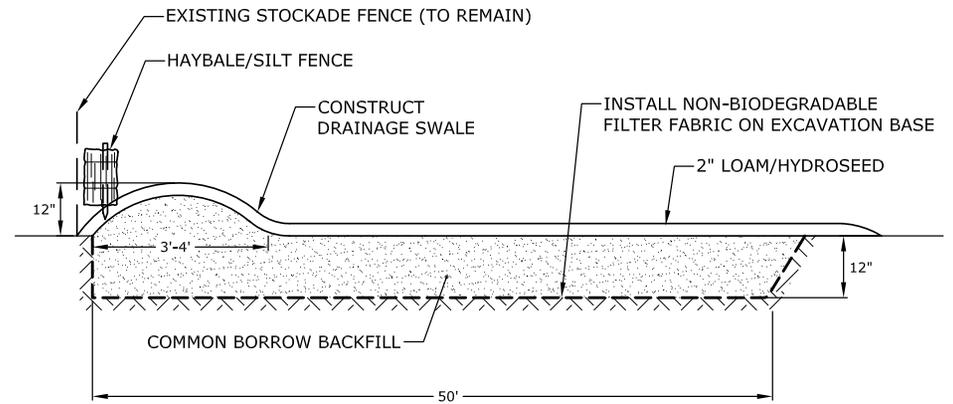
**SECTION A-A**

**DETAIL A**

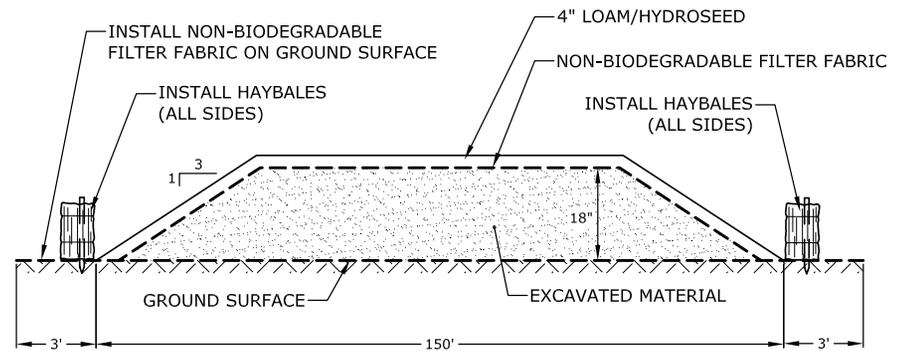


**DETAIL B**

**HAY BALES & SILTATION FENCE**  
NO SCALE



**SOIL EXCAVATION DETAIL**  
NO SCALE



**SOIL STABILIZATION AREA DETAIL**  
NO SCALE

Former Tombarello Property  
207 Marston Street  
Lawrence, Massachusetts

**DETAIL PLAN**

DATE: APRIL 14, 2011

SCALE: N.T.S.

FIGURE 3





# Tighe & Bond

Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking West
Description: View of Former Tombarello Property. Proposed excavation area is located to the north and soil stabilization area is located to the south.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking North
Description: View of gravel road constructed to allow truck and equipment access to excavation area without contacting underlying contaminated soil.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking South
Description: View of former OHM consolidation area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking North
Description: View of tree clearing and chipping operations.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking Southeast
Description: View of 10'x26'x6" soil excavation area beneath former abandoned excavator.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking Southeast
Description: View of soil stabilization area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking South
Description: View of concrete stockpile generated during removal of concrete slab in soil stabilization area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking East
Description: View of water truck applying water to ground surface of site as a dust control measure.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking Northeast
Description: View of excavation activities and portions of completed excavation base.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking East
Description: View of soil excavation and loading activities for transport to soil stabilization area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking Northeast
Description: View of gravel backfill area and filter fabric placement.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/2/11	Direction: Looking North
Description: View of bulldozer spreading gravel backfill onto completed excavation area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/3/11	Direction: Looking East
Description: View of backfilled excavation area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/12/11	Direction: Looking East
Description: View of a portion of hydroseeded area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/12/11	Direction: Looking South
Description: View of hydroseeded soil stabilization area. Staked hay bales also seen surrounding stabilization area.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/6/11	Direction: Looking East
Description: View of signage placed along perimeter of site	

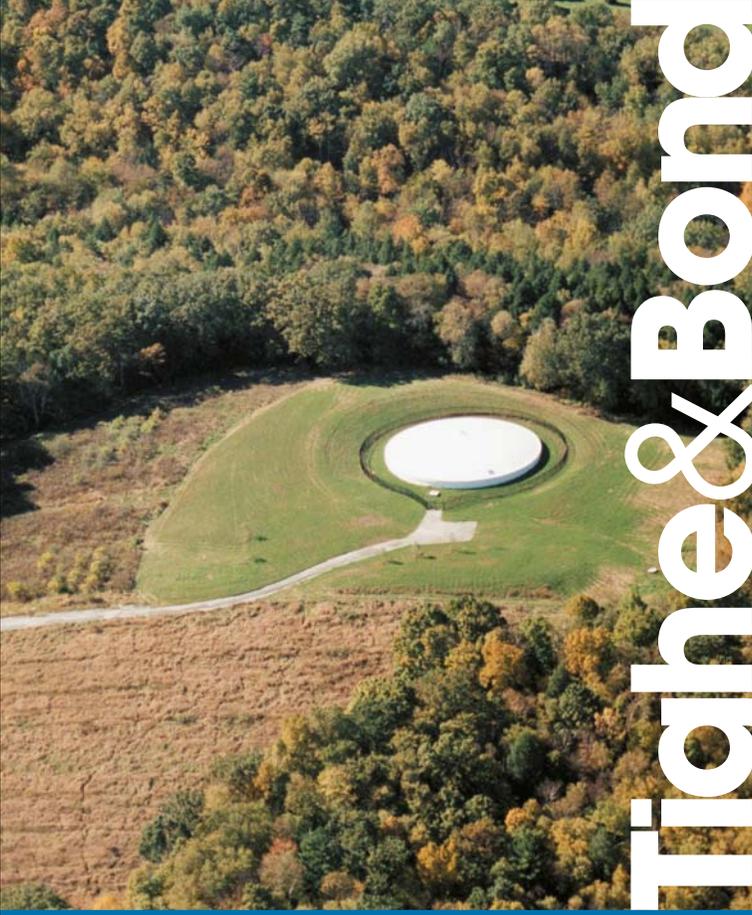


Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/27/11	Direction: Looking East
Description: View of fence repair on northwestern portion of the property.	



Site: Former Tombarello, 207 Marston Street, Lawrence, MA	
Date: 5/6/11	Direction: Looking South
Description: View of fence repair area abutting Route 495.	





# Tighe & Bond

**Charter Environmental, Inc.  
Air Monitoring Log**

Temp: 50-70 f

Wind: NW 5-10

Date	Location	Time	Dust mg/m3	PID ppm	Comments
3-May	Exclusion Zone Various	715	0	0	
		730	0.01	0	
		745	0.044	0	
		800	0.12	0	
		815	0.41	0	Vehicle Traffic
		830	0.016	0	
		845	0.166	0	Vehicle Traffic
		900	0	0	
		915	0	0	Break
		930	0.086	0	
		945	1.012	0	Vehicle Traffic
		1000	0.088	0	
		1015	0.028	0	
		1030	2.012	0	Vehicle Traffic
		1045	1.01	0	
		1100	0.086	0	
		1115	1.166	0	Vehicle Traffic
		1130	0.08	0	
		1145	0.642	0	Vehicle Traffic
		1200	0	0	Lunch
		100	0.05	0	
		115	0.002	0	
		130	0	0	
		145	0.018	0	Finish Excavation
		200	0	0	
		215	0	0	
		230	0	0	
		245	0	0	
		300	0	0	End of Activity

TWA = 0.005 mg/m3



**MAIN OFFICE:**

979 Main Street  
Wakefield, Massachusetts 01880  
(781) 213-9198  
(781) 213-6992 Fax

**BRANCH OFFICES:**

46 Watergate Lane  
W. Barnstable, Massachusetts 02360  
(508) 744-7306 Fax

10 Diamond Drive  
Derry, New Hampshire 03038  
(603) 434-5245  
(603) 434-5172 Fax

[www.axiomenvironment.com](http://www.axiomenvironment.com)

May 12, 2011

Don Pipatti  
Project Manager  
Charter Environmental Inc.  
560 Harrison Ave  
Boston, Massachusetts 02118

Project Number 01170.083

RE: Worker Personal Sampling for Polychlorinated Biphenyls, Former Site of John C. Tombarello and Sons, Inc. Salvage Experts, 207 Marston Street, Lawrence, MA

Dear Mr. Johnson:

Please find enclosed the air testing environmental compliance report conducted on May 2, 2011 for the polychlorinated biphenyls (PCBs) soils abatement project located at the site of former John C. Tombarello and Sons, Inc. salvage yard located at 207 Marston Street, Lawrence, MA. AXIOM's inspector/project monitor performed personal air quality sampling for PCBs during a typical eight-hour work shift.

The enclosed report contains a discussion of our sampling protocols, findings and conclusions. Please do not hesitate to contact us if you have any questions or comments regarding this report.

Thank you for the opportunity to provide you with this information and to be of service to Charter Environmental Inc.

Sincerely,

Peter A. Del Sette, Jr.  
Industrial Hygienist

A handwritten signature in blue ink, appearing to read "S.P. Hurley".

Sean P. Hurley  
Principal

Enclosed – Polychlorinated Biphenyls Monitoring Site of Former John C. Tombarello and Sons, Inc., 207 Marston Street, Lawrence, MA



# **Polychlorinated Biphenyl Monitoring Report**

**Site of Former John C. Tombarello and Sons, Inc.  
207 Marston Street, Lawrence, MA**

*Prepared for:*

**Charter Environmental Inc.  
560 Harrison Ave  
Boston, Massachusetts, 02118**

*Prepared by:*

**Axiom Partners, Inc.  
979 Main Street  
Wakefield, Massachusetts 01880**

**Project Number 01170-083**

**May 2011**



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## 1.0 MONITORING BACKGROUND

At your request, AXIOM Partners, Inc. (AXIOM) conducted personal monitoring for polychlorinated biphenyl materials (PCB's) at the site of the former John C. Tombarello and Sons, Inc. salvage yard, located at 207 Marston Street, Lawrence, MA. The monitoring was conducted while Charter Environmental Inc (Charter) removed soil known to be contaminated with PCB's as defined by previous surveying.

## 2.0 MONITORING METHODOLOGY

The purpose of the personal monitoring was to assess the level of possible PCB exposure to workers during remediation activities. AXIOM's scope of work for this investigation involved collecting personal worker air samples during remediation procedures.

Personal worker samples were collected utilizing the NIOSH 5503 method. AXIOM used air-sampling cassettes with sampling pumps to draw air onto the filter media. The sampling pumps used were low-flow battery operated personal pumps. The filter media consisted of a 13-mm glass fiber and Florisil tube. Once the sample was collected the filter media was sealed and sent to an accredited laboratory for analysis by Gas Chromatographic/Electron Capture Detection (GC/EDC).

Personal worker samples background samples were sent to EMSL Analytical, Inc. in Westmont, New Jersey. EMSL Analytical, Inc. is an AIHA accredited laboratory; certificate number 100194.

## 3.0 AIR MONITORING PROGRAM

### 3.1 INDICATOR PARAMETERS

#### 3.1.1 Personal Air Sampling for Polychlorinated Biphenyls

Personal worker samples were placed directly on workers in their breathing zones, generally referred to as the upper hemisphere of the body, who were working in hot zone on the day of the PCB sampling. These samples were collected over the course of normal work day at the necessary volume of air for analysis. Samples were collected during times when the highest level of exposure was expected to occur.

## 4.0 DATA INTERPRETATION / RECOMMENDATIONS

The objective in conducting this air monitoring program was to assess the level of possible exposure to workers in direct contact with the PCB contaminated materials during abatement. **Based on the air results workers were not exposed to levels of PCB's that would be deemed detrimental to ones health according to the occupational safety and health administration (OSHA) exposure levels. If any exposure occurred during abatement it was nullified by the use of personal protective equipment (PPE) that all workers wore throughout the project.**

**TABLE I**  
**SUMMARY OF RESULTS OF PERSONAL AIR SAMPLING FOR PCB's**

<b>Date</b>	<b>Sample No. / Location</b>	<b>Results (<math>mg/m^3</math>)*</b>	<b>Comments</b>
May 2, 2011	Dan Harrison / Site Worker in Hot Zone Heavy Equipment Operator	None Detected	None Detected
May 2, 2011	Roger Michaud / Site Worker in Hot Zone	None Detected	None Detected
May 2, 2011	Todd Champlain / Site Worker in Hot Zone	None Detected	None Detected
May 2, 2011	Field Blank	None Detected	None Detected

\* $mg/m^3$  = micrograms per cubic meter of air

Please see Attachment A - Laboratory Report With Air Analysis Results Summary

Site of Former John C. Tombarello and Sons, Inc.  
PCB Project Monitoring Report  
May 12, 2011

207 Marston Street  
Lawrence, MA

## **Attachment A**

### **Laboratory Report With Air Analysis Results Summary**

# EMSL Analytical, Inc.

<http://www.emsl.com>

3 Cooper St.  
Westmont, NJ 08108  
Phone: (856) 858-4800  
Fax: (856) 858-4571

Attn: **Peter Del Sette**  
**Axiom Partners, Inc.**  
**979 Main Street**

**Wakefield, MA 01880**

5/10/2011

Phone: (781) 213-9198  
Fax: (781) 213-6992

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 5/5/2011. The results are tabulated on the attached data pages for the following client designated project:

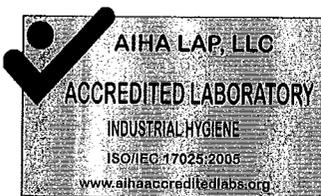
**207 Marston Street, Lawrence, MA**

The reference number for these samples is EMSL Order #011102296. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 858-4800.

Reviewed and Approved By:



Julie Smith - Laboratory Director or other approved  
signatory



Accreditation #100194 NELAC Certification: NJ  
04653, NY 10896

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the AIHA, unless specifically indicated. The final results are not field blank corrected. The laboratory is not responsible for final results calculated using air volumes that have been provided by non-laboratory personnel. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

Revised Report – Sample ID for -0002 revised to reflect the coc. – Original Report 5/9/11  
Only florasil tubes were supplied for analysis, therefore PCB results are reported as vapor analysis only.



# EMSL Analytical, Inc.

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: jsmith@emsl.com



Attn: **Peter Del Sette**  
**Axiom Partners, Inc.**  
**979 Main Street**

**Wakefield, MA 01880**

Fax: (781) 213-6992

Phone: (781) 213-9198

Project: 207 Marston Street, Lawrence, MA

Customer ID: AXIO80

Customer PO:

Received: 05/05/11 12:00 PM

EMSL Order: 011102296

## Analytical Results

<i>Client Sample Description</i>		<i>Collected:</i>		<i>Lab ID:</i>		
05/02/2011-01 Dan Harrison		5/2/2011		0001		
<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
5503 Modified	Aroclor-1016	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1221	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1232	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1242	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1248	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1254	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1260	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1262	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1268	ND	0.000065	mg/m <sup>3</sup>	5/6/2011	ehernandez

<i>Client Sample Description</i>		<i>Collected:</i>		<i>Lab ID:</i>		
05/02/2011-02 Roger Michaud		5/2/2011		0002		
<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
5503 Modified	Aroclor-1016	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1221	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1232	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1242	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1248	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1254	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1260	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1262	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1268	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez

<i>Client Sample Description</i>		<i>Collected:</i>		<i>Lab ID:</i>		
05/02/2011-03 Todd Champlain		5/2/2011		0003		
<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
5503 Modified	Aroclor-1016	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1221	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1232	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1242	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1248	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1254	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez



**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4571 Email: [jsmith@emsl.com](mailto:jsmith@emsl.com)



Attn: **Peter Del Sette**  
**Axiom Partners, Inc.**  
**979 Main Street**

Customer ID: AXIO80  
Customer PO:  
Received: 05/05/11 12:00 PM  
EMSL Order: 011102296

**Wakefield, MA 01880**

Fax: (781) 213-6992 Phone: (781) 213-9198  
Project: 207 Marston Street, Lawrence, MA

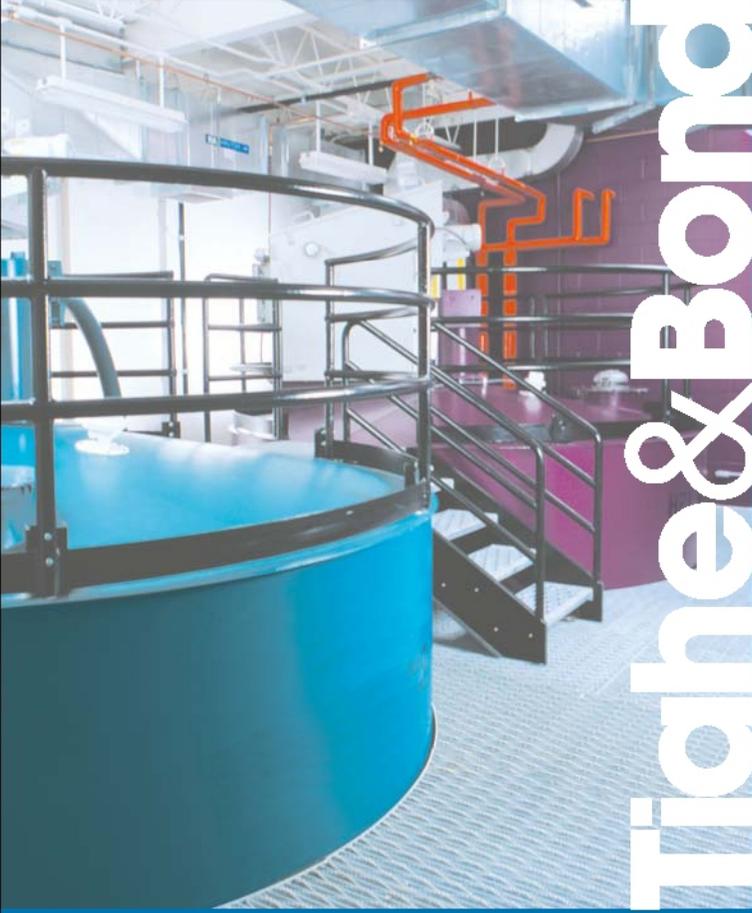
**Analytical Results**

<i>Client Sample Description</i>	05/02/2011-03 Todd Champlain	<i>Collected:</i>	5/2/2011	<i>Lab ID:</i>	0003	
<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
5503 Modified	Aroclor-1260	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1262	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez
5503 Modified	Aroclor-1268	ND	0.000066	mg/m <sup>3</sup>	5/6/2011	ehernandez

<i>Client Sample Description</i>	05/02/2011-04 Field Blank	<i>Collected:</i>	5/2/2011	<i>Lab ID:</i>	0004	
<i>Method</i>	<i>Parameter</i>	<i>Result</i>	<i>Reporting Limit</i>	<i>Units</i>	<i>Analysis Date</i>	<i>Analyst</i>
5503 Modified	Aroclor-1016	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1221	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1232	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1242	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1248	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1254	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1260	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1262	ND	0.000050	mg/tube	5/6/2011	ehernandez
5503 Modified	Aroclor-1268	ND	0.000050	mg/tube	5/6/2011	ehernandez

**Definitions:**

ND - indicates that the analyte was not detected at the reporting limit



# Tighe & Bond

**Table 1**  
**Post Excavation Soil Analytical Results**  
**Former Tombarello**  
**207 Marston Street**  
**Lawrence, Massachusetts**

Sample Identification	MCP Method 2 Direct Contact Soil Standards			TSCA	EPC for Excavation Area	PX-01	PX-02	PX-03	PX-04	PX-05	PX-06	PX-07	PX-08	PX-09	PX-10	PX-11	PX-11 (Duplicate)	PX-12	PX-13	PX-14	PX-15	
	S-1	S-2	S-3	Low occupancy		5/2/2011	5/2/2011	5/2/2011	5/2/2011	5/2/2011	5/2/2011	5/2/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011	5/3/2011
Date Collected																						
Depth Collected (Inches)						12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Sample Type						Soil	Soil	Soil	Soil	Soil	Soil											
<b>Polychlorinated Biphenyls (PCBs)</b>																						
Aroclor 1016						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
Aroclor 1221						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
Aroclor 1232						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
Aroclor 1242						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
Aroclor 1248						<0.842	<0.818	<0.0417	<0.0420	<0.0371	0.152	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
Aroclor 1254						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	14.8	5.56	0.615	4.35	1.29	1.15	0.914	0.523	<0.129	<0.120	
Aroclor 1260						4.9	5.17	0.569	0.533	0.24	0.341	<0.990	<1.1	1.67	2.12	2.57	2.26	2.2	1.29	1.72	0.23	
Aroclor 1262						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
Aroclor 1268						<0.842	<0.818	<0.0417	<0.0420	<0.0371	<0.0365	<0.990	<1.1	<0.122	<0.503	<0.576	<0.555	<0.577	<0.129	<0.129	<0.120	
<b>Total PCBs</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>25</b>	<b>3.45</b>	4.9	5.17	0.569	0.533	0.24	0.493	14.8	5.56	2.285	6.47	3.86	3.41	3.114	1.813	1.72	0.23	
<b>RCRA-8 Metals</b>																						
Arsenic	20	20	20		<b>9</b>	7.0	7.1	6.0	11	10	8.4	14	8.2	6	8.8	7.8	7.8	8.7	9.9	11	5.2	
Barium	1000	3000	5000		<b>128</b>	46	30	22	55	53	250	57	170	280	230	310	150	120	96	110	62	
Cadmium	2	30	30		<b>4</b>	1.9	0.64	<0.47	0.63	0.84	23	1.7	3.8	2.4	5.3	3.7	3.6	2.6	1.7	3	0.58	
Chromium	30	200	200		<b>26</b>	36	17	13	28	23	32	25	38	26	30	28	30	25	21	24	15	
Lead	300	300	300		<b>173</b>	150	29	14	86	110	3,500	150	230	340	410	270	260	240	150	120	38	
Mercury	20	30	30		<b>0.37</b>	1.1	<0.10	0.13	0.3	0.12	0.19	0.24	0.26	0.24	0.76	0.38	0.5	0.38	0.37	0.27	<0.09	
Selenium	400	800	800		<b>ND</b>	<2.2	<2.3	<2.4	<2.2	<2.1	<1.9	<1.9	<2.2	<2.5	<2.2	<2.1	<2.0	<2.4	<2.5	<2.3	<2.4	
Silver	100	200	200		<b>0.46</b>	<0.44	<0.46	<0.47	<0.45	<0.42	<0.38	<0.38	<0.45	<0.50	0.46	<0.43	<0.40	<0.48	<0.50	<0.46	<0.48	

**Notes**

Results reported in milligrams per kilogram (mg/kg) which is equivalent to ppm

"<" indicates compound was not detected (ND). Detection limit is provided.

EPC - exposure point concentration, which is equivalent to the average of the samples collected from within the excavation area. For conservatism, non-detect results are not included in the average.

**Table 2**  
**Gravel and Loam Backfill Data Table**  
**Former Tombarello**  
**207 Marston Street**  
**Lawrence, Massachusetts**

Sample Identification	Gravel Backfill	Loam	MADEP Background Levels	MCP Method 2 Direct Contact Soil Standards
<b>Date Collected</b>	5/2/2011	5/2/2011		<b>S-1</b>
<b>Polychlorinated Biphenyls (PCBs)</b>				
Aroclor 1016	<0.0343	<0.0410		
Aroclor 1221	<0.0343	<0.0410		
Aroclor 1232	<0.0343	<0.0410		
Aroclor 1242	<0.0343	<0.0410		
Aroclor 1248	<0.0343	<0.0410		
Aroclor 1254	<0.0343	<0.0410		
Aroclor 1260	<0.0343	<0.0410		
Aroclor 1262	<0.0343	<0.0410		
Aroclor 1268	<u>&lt;0.0343</u>	<u>&lt;0.0410</u>		
<b>Total PCBs:</b>	<b>ND</b>	<b>ND</b>		
<b>RCRA-8 Metals</b>				
Arsenic	6.5	6.2	20	20
Barium	29	35	50	1,000
Cadmium	<0.42	<0.42	2	2
Chromium	31	16	30	1,000 (trivalent)
Lead	4.1	29	100	300
Mercury	<0.08	<0.08	0.3	20
Selenium	<2.1	<2.1	0.5	400
Silver	<0.42	<0.42	0.6	100

Notes

Results reported in milligrams per kilogram (mg/kg) which is equivalent to ppm  
"<" indicates compound was not detected (ND). Detection limit is provided.

**Table 3**  
**PCB Wipe Analytical Results**  
**Former Tombarello Property**  
**207 Marston Street**  
**Lawrence, Massachusetts**

<b>Sample ID</b>	W-1	W-2	W-3	W-4	W-5	W-6	W-7	W-8	W-9	W-10	W-11
<b>Sample Location</b>	Truck Tire	Blue Roll-off	Steel Block	Grabber Claw	Grabber Tire	Scrap 1	Scrap 2	Excavator Bucket	Magnet	Excavator Track 1	Excavator Track 2
<b>Collection Date</b>	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/29/2011	6/29/2011	6/29/2011
<b>Polychlorinated Biphenyls (µg Abs)</b>											
Aroclor 1016	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Aroclor 1221	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Aroclor 1232	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Aroclor 1242	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Aroclor 1248	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1254	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Aroclor 1260	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Aroclor 1262	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1268	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

"<" = not detected above indicated detection limit



## ANALYTICAL REPORT

Lab Number:	L1105998
Client:	Tighe & Bond, Inc. 446 Main Street Worcester, MA 01608
ATTN:	Shannon Hunt
Phone:	(508) 471-9627
Project Name:	FORMER TOMBARELLO
Project Number:	H-1416
Report Date:	05/09/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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.

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



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1105998-01	PX-01	LAWRENCE, MA	05/02/11 09:10
L1105998-02	PX-02	LAWRENCE, MA	05/02/11 09:25
L1105998-03	PX-03	LAWRENCE, MA	05/02/11 10:20
L1105998-04	PX-04	LAWRENCE, MA	05/02/11 11:30
L1105998-05	PX-05	LAWRENCE, MA	05/02/11 12:10
L1105998-06	PX-06	LAWRENCE, MA	05/02/11 13:45

Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

**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.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
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
<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
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
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

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



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

### 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.

##### Polychlorinated Biphenyls

L1105998-01 and -02 have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

L1105998-01 and -02: One or more of the target analytes did not achieve the requested CAM reporting limits.

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

### Case Narrative (continued)

In reference to question H:

The surrogate recoveries for L1105998-01 and -02 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analysis are reported.

Metals

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:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/09/11

# ORGANICS

# PCBS

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

Lab ID: L1105998-01 D  
 Client ID: PX-01  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/09/11 13:23  
 Analyst: KB  
 Percent Solids: 79%

Date Collected: 05/02/11 09:10  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	842	--	20
Aroclor 1221	ND		ug/kg	842	--	20
Aroclor 1232	ND		ug/kg	842	--	20
Aroclor 1242	ND		ug/kg	842	--	20
Aroclor 1248	ND		ug/kg	842	--	20
Aroclor 1254	ND		ug/kg	842	--	20
Aroclor 1262	ND		ug/kg	842	--	20
Aroclor 1268	ND		ug/kg	842	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

Lab ID: L1105998-01 D  
 Client ID: PX-01  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/09/11 13:23  
 Analyst: KB  
 Percent Solids: 79%

Date Collected: 05/02/11 09:10  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1260	4900		ug/kg	842	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

Lab ID: L1105998-02 D  
 Client ID: PX-02  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/09/11 13:36  
 Analyst: KB  
 Percent Solids: 80%

Date Collected: 05/02/11 09:25  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	818	--	20
Aroclor 1221	ND		ug/kg	818	--	20
Aroclor 1232	ND		ug/kg	818	--	20
Aroclor 1242	ND		ug/kg	818	--	20
Aroclor 1248	ND		ug/kg	818	--	20
Aroclor 1254	ND		ug/kg	818	--	20
Aroclor 1262	ND		ug/kg	818	--	20
Aroclor 1268	ND		ug/kg	818	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

Lab ID: L1105998-02 D  
 Client ID: PX-02  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/09/11 13:36  
 Analyst: KB  
 Percent Solids: 80%

Date Collected: 05/02/11 09:25  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1260	5170		ug/kg	818	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

Lab ID: L1105998-03  
 Client ID: PX-03  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/06/11 10:55  
 Analyst: KB  
 Percent Solids: 79%

Date Collected: 05/02/11 10:20  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	41.7	--	1
Aroclor 1221	ND		ug/kg	41.7	--	1
Aroclor 1232	ND		ug/kg	41.7	--	1
Aroclor 1242	ND		ug/kg	41.7	--	1
Aroclor 1248	ND		ug/kg	41.7	--	1
Aroclor 1254	ND		ug/kg	41.7	--	1
Aroclor 1262	ND		ug/kg	41.7	--	1
Aroclor 1268	ND		ug/kg	41.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	66		30-150
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	73		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

**Lab ID:** L1105998-03  
**Client ID:** PX-03  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/06/11 10:55  
**Analyst:** KB  
**Percent Solids:** 79%

**Date Collected:** 05/02/11 10:20  
**Date Received:** 05/02/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/04/11 17:20  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/05/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1260	569		ug/kg	41.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	66		30-150
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	73		30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

Lab ID: L1105998-04  
 Client ID: PX-04  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/06/11 11:08  
 Analyst: KB  
 Percent Solids: 79%

Date Collected: 05/02/11 11:30  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	42.0	--	1
Aroclor 1221	ND		ug/kg	42.0	--	1
Aroclor 1232	ND		ug/kg	42.0	--	1
Aroclor 1242	ND		ug/kg	42.0	--	1
Aroclor 1248	ND		ug/kg	42.0	--	1
Aroclor 1254	ND		ug/kg	42.0	--	1
Aroclor 1262	ND		ug/kg	42.0	--	1
Aroclor 1268	ND		ug/kg	42.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		30-150
Decachlorobiphenyl	103		30-150
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	67		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

**Lab ID:** L1105998-04  
**Client ID:** PX-04  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/06/11 11:08  
**Analyst:** KB  
**Percent Solids:** 79%

**Date Collected:** 05/02/11 11:30  
**Date Received:** 05/02/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/04/11 17:20  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/05/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1260	533		ug/kg	42.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		30-150
Decachlorobiphenyl	103		30-150
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	67		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

Lab ID: L1105998-05  
 Client ID: PX-05  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/06/11 11:21  
 Analyst: KB  
 Percent Solids: 88%

Date Collected: 05/02/11 12:10  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	37.1	--	1
Aroclor 1221	ND		ug/kg	37.1	--	1
Aroclor 1232	ND		ug/kg	37.1	--	1
Aroclor 1242	ND		ug/kg	37.1	--	1
Aroclor 1248	ND		ug/kg	37.1	--	1
Aroclor 1254	ND		ug/kg	37.1	--	1
Aroclor 1262	ND		ug/kg	37.1	--	1
Aroclor 1268	ND		ug/kg	37.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	69		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

**Lab ID:** L1105998-05  
**Client ID:** PX-05  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/06/11 11:21  
**Analyst:** KB  
**Percent Solids:** 88%

**Date Collected:** 05/02/11 12:10  
**Date Received:** 05/02/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/04/11 17:20  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/05/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1260	240		ug/kg	37.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	69		30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

Lab ID: L1105998-06  
 Client ID: PX-06  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/06/11 11:35  
 Analyst: KB  
 Percent Solids: 90%

Date Collected: 05/02/11 13:45  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	36.5	--	1
Aroclor 1221	ND		ug/kg	36.5	--	1
Aroclor 1232	ND		ug/kg	36.5	--	1
Aroclor 1242	ND		ug/kg	36.5	--	1
Aroclor 1254	ND		ug/kg	36.5	--	1
Aroclor 1262	ND		ug/kg	36.5	--	1
Aroclor 1268	ND		ug/kg	36.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	56		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11**SAMPLE RESULTS**

**Lab ID:** L1105998-06  
**Client ID:** PX-06  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/06/11 11:35  
**Analyst:** KB  
**Percent Solids:** 90%

**Date Collected:** 05/02/11 13:45  
**Date Received:** 05/02/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/04/11 17:20  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/05/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1248	152		ug/kg	36.5	--	1
Aroclor 1260	341		ug/kg	36.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	56		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105998**Project Number:** H-1416**Report Date:** 05/09/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 93,8082  
 Analytical Date: 05/06/11 11:48  
 Analyst: KB

Extraction Method: EPA 3540C  
 Extraction Date: 05/04/11 17:20  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/05/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/05/11

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-06 Batch: WG466164-1					
Aroclor 1016	ND		ug/kg	33.3	--
Aroclor 1221	ND		ug/kg	33.3	--
Aroclor 1232	ND		ug/kg	33.3	--
Aroclor 1242	ND		ug/kg	33.3	--
Aroclor 1248	ND		ug/kg	33.3	--
Aroclor 1254	ND		ug/kg	33.3	--
Aroclor 1260	ND		ug/kg	33.3	--
Aroclor 1262	ND		ug/kg	33.3	--
Aroclor 1268	ND		ug/kg	33.3	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	79		30-150
2,4,5,6-Tetrachloro-m-xylene	139		30-150
Decachlorobiphenyl	135		30-150

### Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Qual			
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-06 Batch: WG466164-2 WG466164-3									
Aroclor 1016	84		74		40-140		13		30
Aroclor 1260	87		72		40-140		19		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,4,5,6-Tetrachloro-m-xylene	97		77		30-150
Decachlorobiphenyl	86		71		30-150
2,4,5,6-Tetrachloro-m-xylene	102		80		30-150
Decachlorobiphenyl	103		82		30-150



## METALS

Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-01

Date Collected: 05/02/11 09:10

Client ID: PX-01

Date Received: 05/02/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	7.0		mg/kg	0.44	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG
Barium, Total	46		mg/kg	0.44	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG
Cadmium, Total	1.9		mg/kg	0.44	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG
Chromium, Total	36		mg/kg	0.44	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG
Lead, Total	150		mg/kg	2.2	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG
Mercury, Total	1.1		mg/kg	0.09	--	1	05/03/11 17:30	05/04/11 11:03	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.2	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.44	--	1	05/05/11 10:40	05/05/11 17:34	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-02  
 Client ID: PX-02  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 80%

Date Collected: 05/02/11 09:25  
 Date Received: 05/02/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	7.1		mg/kg	0.46	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG
Barium, Total	30		mg/kg	0.46	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG
Cadmium, Total	0.64		mg/kg	0.46	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG
Chromium, Total	17		mg/kg	0.46	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG
Lead, Total	29		mg/kg	2.3	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG
Mercury, Total	ND		mg/kg	0.10	--	1	05/03/11 17:30	05/04/11 11:08	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.3	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.46	--	1	05/05/11 10:40	05/05/11 17:38	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-03  
 Client ID: PX-03  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 79%

Date Collected: 05/02/11 10:20  
 Date Received: 05/02/11  
 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	6.0		mg/kg	0.47	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG
Barium, Total	22		mg/kg	0.47	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG
Cadmium, Total	ND		mg/kg	0.47	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG
Chromium, Total	13		mg/kg	0.47	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG
Lead, Total	14		mg/kg	2.4	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG
Mercury, Total	0.13		mg/kg	0.10	--	1	05/03/11 17:30	05/04/11 11:10	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.4	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.47	--	1	05/05/11 10:40	05/05/11 17:41	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-04  
 Client ID: PX-04  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 79%

Date Collected: 05/02/11 11:30  
 Date Received: 05/02/11  
 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	0.45	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG
Barium, Total	55		mg/kg	0.45	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG
Cadmium, Total	0.63		mg/kg	0.45	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG
Chromium, Total	28		mg/kg	0.45	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG
Lead, Total	86		mg/kg	2.2	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG
Mercury, Total	0.30		mg/kg	0.09	--	1	05/03/11 17:30	05/04/11 11:12	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.2	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.45	--	1	05/05/11 10:40	05/05/11 17:44	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-05  
 Client ID: PX-05  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 88%

Date Collected: 05/02/11 12:10  
 Date Received: 05/02/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	10		mg/kg	0.42	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG
Barium, Total	53		mg/kg	0.42	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG
Cadmium, Total	0.84		mg/kg	0.42	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG
Chromium, Total	23		mg/kg	0.42	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG
Lead, Total	110		mg/kg	2.1	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG
Mercury, Total	0.12		mg/kg	0.08	--	1	05/03/11 17:30	05/04/11 11:14	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.1	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.42	--	1	05/05/11 10:40	05/05/11 17:48	EPA 3050B	97,6010B	MG



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

Lab ID: L1105998-06  
 Client ID: PX-06  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 90%

Date Collected: 05/02/11 13:45  
 Date Received: 05/02/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	8.4		mg/kg	0.38	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG
Barium, Total	250		mg/kg	0.38	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG
Cadmium, Total	23		mg/kg	0.38	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG
Chromium, Total	32		mg/kg	0.38	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG
Lead, Total	3500		mg/kg	1.9	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG
Mercury, Total	0.19		mg/kg	0.08	--	1	05/03/11 17:30	05/04/11 11:16	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	1.9	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.38	--	1	05/05/11 10:40	05/05/11 17:51	EPA 3050B	97,6010B	MG



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

## 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): 01-06 Batch: WG465977-1									
Mercury, Total	ND	mg/kg	0.08	--	1	05/03/11 17:30	05/04/11 10:50	97,7471A	AH

### Prep Information

Digestion Method: EPA 7471A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG466360-1									
Arsenic, Total	ND	mg/kg	0.40	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG
Barium, Total	ND	mg/kg	0.40	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG
Cadmium, Total	ND	mg/kg	0.40	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG
Chromium, Total	ND	mg/kg	0.40	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG
Lead, Total	ND	mg/kg	2.0	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG
Selenium, Total	ND	mg/kg	2.0	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG
Silver, Total	ND	mg/kg	0.40	--	1	05/05/11 10:40	05/05/11 16:37	97,6010B	MG

### Prep Information

Digestion Method: EPA 3050B

### Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Limits			
MCP Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG465977-2 WG465977-3 SRM Lot Number: 0518-10-02									
Mercury, Total	108		108		68-133		0		30
MCP Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG466360-2 WG466360-3 SRM Lot Number: 0518-10-02									
Arsenic, Total	100		100		81-119		0		30
Barium, Total	96		92		83-118		4		30
Cadmium, Total	98		94		82-117		4		30
Chromium, Total	101		97		80-119		4		30
Lead, Total	99		95		80-120		4		30
Selenium, Total	102		98		80-120		4		30
Silver, Total	100		97		66-134		3		30



# **INORGANICS & MISCELLANEOUS**

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

**Lab ID:** L1105998-01  
**Client ID:** PX-01  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/02/11 09:10  
**Date Received:** 05/02/11  
**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	-	05/04/11 16:23	30,2540G	SD



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

**SAMPLE RESULTS**

Lab ID: L1105998-02

Date Collected: 05/02/11 09:25

Client ID: PX-02

Date Received: 05/02/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80		%	0.10	NA	1	-	05/04/11 16:23	30,2540G	SD



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-03

Date Collected: 05/02/11 10:20

Client ID: PX-03

Date Received: 05/02/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

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	-	05/04/11 16:23	30,2540G	SD



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## SAMPLE RESULTS

Lab ID: L1105998-04  
 Client ID: PX-04  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil

Date Collected: 05/02/11 11:30  
 Date Received: 05/02/11  
 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	-	05/04/11 16:23	30,2540G	SD



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

**Lab ID:** L1105998-05  
**Client ID:** PX-05  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/02/11 12:10  
**Date Received:** 05/02/11  
**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	-	05/04/11 16:23	30,2540G	SD



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

**SAMPLE RESULTS**

**Lab ID:** L1105998-06  
**Client ID:** PX-06  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/02/11 13:45  
**Date Received:** 05/02/11  
**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	-	05/04/11 16:23	30,2540G	SD



## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO

**Lab Number:** L1105998

**Project Number:** H-1416

**Report Date:** 05/09/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s):	01-06	QC Batch ID: WG466185-1	QC Sample: L1105939-09	Client ID: DUP Sample		
Solids, Total	94	91	%	3		20



Project Name: FORMER TOMBARELLO

Lab Number: L1105998

Project Number: H-1416

Report Date: 05/09/11

## 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(*)
L1105998-01A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1105998-02A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1105998-03A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1105998-04A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1105998-05A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

\*Values in parentheses indicate holding time in days



**Project Name:** FORMER TOMBARELLO**Project Number:** H-1416**Lab Number:** L1105998**Report Date:** 05/09/11**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1105998-06A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

\*Values in parentheses indicate holding time in days

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

## 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

<b>A</b>	-Spectra identified as "Aldol Condensation Product".
<b>B</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.
<b>C</b>	-Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
<b>D</b>	-Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
<b>E</b>	-Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
<b>G</b>	-The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
<b>H</b>	-The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
<b>I</b>	-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.
<b>P</b>	-The RPD between the results for the two columns exceeds the method-specified criteria.

Report Format: Data Usability Report



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

*Data Qualifiers*

- 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.
- 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.

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105998  
**Report Date:** 05/09/11

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 93 Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Draft Revisions. September-December 2009.
- 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 February 23, 2011 - 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, 353.2, SM2130B, 2320B, 4500CI-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, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-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, 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,Ti) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-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), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Ti,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, 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 420.1, 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. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 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, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, 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, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**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 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 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.***

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 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 NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission 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 S<sup>2-</sup> 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, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, 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 Methylnaphthalenes, 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 Job #: L1105998

Date Rec'd in Lab: 5/2/11

Report Information - Data Deliverables

## Project Information

Project Name: Former Tontarells  
 Project Location: Lawrence, MA  
 Project #: H-1416  
 Project Manager: Shannon Hunt  
 ALPHA Quote #:

## Billing Information

Same as Client info PO #:

## Client Information

Client: Tighe & Bond  
 Address: 446 Main Street  
 Worcester MA 01608  
 Phone: 508 754 2201  
 Fax: 508 795 1087  
 Email: smhunting@tighebond.com

## Regulatory Requirements/Report Limits

State/Fed Program: NEA MCP Criteria: ISSA

## 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?

Standard  RUSH (only confirmed if pre-approved)

Date Due: 5/2/11 Time:

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**  
 PCBs 8082 Soils  
 RCRA-8 metals

**SAMPLE HANDLING**  
 Filtration: \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TOTAL # BOTTLES
05998-1	PX-01	5/2/11	910	S	SMH	1
2	PX-02	5/2/11	925	S	SMH	1
3	PX-03	5/2/11	1020	S	SMH	1
4	PX-04	5/2/11	1130	S	SMH	1
5	PX-05	5/2/11	1210	S	SMH	1
6	PX-06	5/2/11	1345	S	SMH	1

## PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

Container Type: A A  
 Preservative: S S  
 Date/Time: 5/2/11  
 Received By: [Signature]

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.



## ANALYTICAL REPORT

Lab Number:	L1106179
Client:	Tighe & Bond, Inc. 446 Main Street Worcester, MA 01608
ATTN:	Shannon Hunt
Phone:	(508) 471-9627
Project Name:	FORMER TOMBARELLO
Project Number:	H-1416
Report Date:	05/12/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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.

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



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1106179-01	PX-07	LAWRENCE, MA	05/03/11 08:10
L1106179-02	PX-08	LAWRENCE, MA	05/03/11 08:25
L1106179-03	PX-09	LAWRENCE, MA	05/03/11 08:40
L1106179-04	PX-10	LAWRENCE, MA	05/03/11 09:20
L1106179-05	PX-11	LAWRENCE, MA	05/03/11 10:18
L1106179-06	PX-12	LAWRENCE, MA	05/03/11 11:18
L1106179-07	PX-13	LAWRENCE, MA	05/03/11 11:50
L1106179-08	PX-14	LAWRENCE, MA	05/03/11 13:19
L1106179-09	PX-15	LAWRENCE, MA	05/03/11 13:50
L1106179-10	PX-11D	LAWRENCE, MA	05/03/11 10:20

Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

**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.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
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

<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
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:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

### 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.

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#### MCP Related Narratives

##### Sample Receipt

In reference to question H:

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

##### Polychlorinated Biphenyls

L1106179-01, -02, -04, -05, -06 and -10 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question G:

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

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

### Case Narrative (continued)

In reference to question H:

The surrogate recoveries for L1106179-01 and -02 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analysis are reported.

Metals

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:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/12/11

# ORGANICS

# PCBS

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-01 D  
 Client ID: PX-07  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 15:15  
 Analyst: KB  
 Percent Solids: 88%

Date Collected: 05/03/11 08:10  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	990	--	10
Aroclor 1221	ND		ug/kg	990	--	10
Aroclor 1232	ND		ug/kg	990	--	10
Aroclor 1242	ND		ug/kg	990	--	10
Aroclor 1248	ND		ug/kg	990	--	10
Aroclor 1254	14800		ug/kg	990	--	10
Aroclor 1260	ND		ug/kg	990	--	10
Aroclor 1262	ND		ug/kg	990	--	10
Aroclor 1268	ND		ug/kg	990	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-02 D  
 Client ID: PX-08  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 12:14  
 Analyst: KB  
 Percent Solids: 83%

Date Collected: 05/03/11 08:25  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	1100	--	10
Aroclor 1221	ND		ug/kg	1100	--	10
Aroclor 1232	ND		ug/kg	1100	--	10
Aroclor 1242	ND		ug/kg	1100	--	10
Aroclor 1248	ND		ug/kg	1100	--	10
Aroclor 1260	ND		ug/kg	1100	--	10
Aroclor 1262	ND		ug/kg	1100	--	10
Aroclor 1268	ND		ug/kg	1100	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-02 D  
 Client ID: PX-08  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 12:14  
 Analyst: KB  
 Percent Solids: 83%

Date Collected: 05/03/11 08:25  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1254	5560		ug/kg	1100	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-03  
 Client ID: PX-09  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 14:17  
 Analyst: KB  
 Percent Solids: 76%

Date Collected: 05/03/11 08:40  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	122	--	1
Aroclor 1221	ND		ug/kg	122	--	1
Aroclor 1232	ND		ug/kg	122	--	1
Aroclor 1242	ND		ug/kg	122	--	1
Aroclor 1248	ND		ug/kg	122	--	1
Aroclor 1262	ND		ug/kg	122	--	1
Aroclor 1268	ND		ug/kg	122	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	103		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-03  
 Client ID: PX-09  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 14:17  
 Analyst: KB  
 Percent Solids: 76%

Date Collected: 05/03/11 08:40  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	615		ug/kg	122	--	1
Aroclor 1260	1670		ug/kg	122	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	103		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-04 D  
 Client ID: PX-10  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 15:27  
 Analyst: KB  
 Percent Solids: 86%

Date Collected: 05/03/11 09:20  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	503	--	5
Aroclor 1221	ND		ug/kg	503	--	5
Aroclor 1232	ND		ug/kg	503	--	5
Aroclor 1242	ND		ug/kg	503	--	5
Aroclor 1248	ND		ug/kg	503	--	5
Aroclor 1262	ND		ug/kg	503	--	5
Aroclor 1268	ND		ug/kg	503	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	90		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-04 D  
 Client ID: PX-10  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 15:27  
 Analyst: KB  
 Percent Solids: 86%

Date Collected: 05/03/11 09:20  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	4350		ug/kg	503	--	5
Aroclor 1260	2120		ug/kg	503	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	90		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-05 D  
 Client ID: PX-11  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 16:23  
 Analyst: KB  
 Percent Solids: 84%

Date Collected: 05/03/11 10:18  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	576	--	5
Aroclor 1221	ND		ug/kg	576	--	5
Aroclor 1232	ND		ug/kg	576	--	5
Aroclor 1242	ND		ug/kg	576	--	5
Aroclor 1248	ND		ug/kg	576	--	5
Aroclor 1262	ND		ug/kg	576	--	5
Aroclor 1268	ND		ug/kg	576	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	85		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-05 D  
 Client ID: PX-11  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 16:23  
 Analyst: KB  
 Percent Solids: 84%

Date Collected: 05/03/11 10:18  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	1290		ug/kg	576	--	5
Aroclor 1260	2570		ug/kg	576	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	85		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-06 D  
 Client ID: PX-12  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 17:02  
 Analyst: KB  
 Percent Solids: 83%

Date Collected: 05/03/11 11:18  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	577	--	5
Aroclor 1221	ND		ug/kg	577	--	5
Aroclor 1232	ND		ug/kg	577	--	5
Aroclor 1242	ND		ug/kg	577	--	5
Aroclor 1248	ND		ug/kg	577	--	5
Aroclor 1262	ND		ug/kg	577	--	5
Aroclor 1268	ND		ug/kg	577	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	53		30-150
Decachlorobiphenyl	67		30-150
2,4,5,6-Tetrachloro-m-xylene	50		30-150
Decachlorobiphenyl	67		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-06 D  
 Client ID: PX-12  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 17:02  
 Analyst: KB  
 Percent Solids: 83%

Date Collected: 05/03/11 11:18  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	914		ug/kg	577	--	5
Aroclor 1260	2200		ug/kg	577	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	53		30-150
Decachlorobiphenyl	67		30-150
2,4,5,6-Tetrachloro-m-xylene	50		30-150
Decachlorobiphenyl	67		30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-07  
 Client ID: PX-13  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 14:41  
 Analyst: KB  
 Percent Solids: 75%

Date Collected: 05/03/11 11:50  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	129	--	1
Aroclor 1221	ND		ug/kg	129	--	1
Aroclor 1232	ND		ug/kg	129	--	1
Aroclor 1242	ND		ug/kg	129	--	1
Aroclor 1248	ND		ug/kg	129	--	1
Aroclor 1262	ND		ug/kg	129	--	1
Aroclor 1268	ND		ug/kg	129	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	90		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

**Lab ID:** L1106179-07  
**Client ID:** PX-13  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/12/11 14:41  
**Analyst:** KB  
**Percent Solids:** 75%

**Date Collected:** 05/03/11 11:50  
**Date Received:** 05/04/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/11/11 12:10  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/12/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	523		ug/kg	129	--	1
Aroclor 1260	1290		ug/kg	129	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	90		30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-08  
 Client ID: PX-14  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 14:53  
 Analyst: KB  
 Percent Solids: 73%

Date Collected: 05/03/11 13:19  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	129	--	1
Aroclor 1221	ND		ug/kg	129	--	1
Aroclor 1232	ND		ug/kg	129	--	1
Aroclor 1242	ND		ug/kg	129	--	1
Aroclor 1248	ND		ug/kg	129	--	1
Aroclor 1254	ND		ug/kg	129	--	1
Aroclor 1262	ND		ug/kg	129	--	1
Aroclor 1268	ND		ug/kg	129	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	64		30-150
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	87		30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-08  
 Client ID: PX-14  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 14:53  
 Analyst: KB  
 Percent Solids: 73%

Date Collected: 05/03/11 13:19  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1260	1720		ug/kg	129	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	64		30-150
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	87		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-09  
 Client ID: PX-15  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 20:32  
 Analyst: KB  
 Percent Solids: 80%

Date Collected: 05/03/11 13:50  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	120	--	1
Aroclor 1221	ND		ug/kg	120	--	1
Aroclor 1232	ND		ug/kg	120	--	1
Aroclor 1242	ND		ug/kg	120	--	1
Aroclor 1248	ND		ug/kg	120	--	1
Aroclor 1254	ND		ug/kg	120	--	1
Aroclor 1262	ND		ug/kg	120	--	1
Aroclor 1268	ND		ug/kg	120	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	48		30-150
Decachlorobiphenyl	73		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

**Lab ID:** L1106179-09  
**Client ID:** PX-15  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/12/11 20:32  
**Analyst:** KB  
**Percent Solids:** 80%

**Date Collected:** 05/03/11 13:50  
**Date Received:** 05/04/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/11/11 12:10  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/12/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1260	230		ug/kg	120	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	44		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	48		30-150
Decachlorobiphenyl	73		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-10 D  
 Client ID: PX-11D  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 19:50  
 Analyst: KB  
 Percent Solids: 85%

Date Collected: 05/03/11 10:20  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	555	--	5
Aroclor 1221	ND		ug/kg	555	--	5
Aroclor 1232	ND		ug/kg	555	--	5
Aroclor 1242	ND		ug/kg	555	--	5
Aroclor 1248	ND		ug/kg	555	--	5
Aroclor 1262	ND		ug/kg	555	--	5
Aroclor 1268	ND		ug/kg	555	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	94		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11**SAMPLE RESULTS**

Lab ID: L1106179-10 D  
 Client ID: PX-11D  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/12/11 19:50  
 Analyst: KB  
 Percent Solids: 85%

Date Collected: 05/03/11 10:20  
 Date Received: 05/04/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	1150		ug/kg	555	--	5
Aroclor 1260	2260		ug/kg	555	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	65		30-150
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	94		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106179**Project Number:** H-1416**Report Date:** 05/12/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 93,8082  
 Analytical Date: 05/12/11 10:48  
 Analyst: KB

Extraction Method: EPA 3540C  
 Extraction Date: 05/11/11 12:10  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/12/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/12/11

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-10 Batch: WG467270-1					
Aroclor 1016	ND		ug/kg	99.8	--
Aroclor 1221	ND		ug/kg	99.8	--
Aroclor 1232	ND		ug/kg	99.8	--
Aroclor 1242	ND		ug/kg	99.8	--
Aroclor 1248	ND		ug/kg	99.8	--
Aroclor 1254	ND		ug/kg	99.8	--
Aroclor 1260	ND		ug/kg	99.8	--
Aroclor 1262	ND		ug/kg	99.8	--
Aroclor 1268	ND		ug/kg	99.8	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	103		30-150

### Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Qual			
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-10 Batch: WG467270-2 WG467270-3									
Aroclor 1016	100		94		40-140		6		30
Aroclor 1260	82		88		40-140		7		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,4,5,6-Tetrachloro-m-xylene	75		67		30-150
Decachlorobiphenyl	77		79		30-150
2,4,5,6-Tetrachloro-m-xylene	108		59		30-150
Decachlorobiphenyl	122		77		30-150



## METALS

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-01  
 Client ID: PX-07  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 88%

Date Collected: 05/03/11 08:10  
 Date Received: 05/04/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	14		mg/kg	0.38	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG
Barium, Total	57		mg/kg	0.38	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG
Cadmium, Total	1.7		mg/kg	0.38	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG
Chromium, Total	25		mg/kg	0.38	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG
Lead, Total	150		mg/kg	1.9	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG
Mercury, Total	0.24		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:36	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	1.9	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.38	--	1	05/06/11 10:00	05/09/11 17:09	EPA 3050B	97,6010B	MG



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-02  
 Client ID: PX-08  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 83%

Date Collected: 05/03/11 08:25  
 Date Received: 05/04/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	8.2		mg/kg	0.45	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG
Barium, Total	170		mg/kg	0.45	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG
Cadmium, Total	3.8		mg/kg	0.45	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG
Chromium, Total	38		mg/kg	0.45	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG
Lead, Total	230		mg/kg	2.2	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG
Mercury, Total	0.26		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:37	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.2	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.45	--	1	05/06/11 10:00	05/09/11 17:12	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-03

Date Collected: 05/03/11 08:40

Client ID: PX-09

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 76%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	6.0		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG
Barium, Total	280		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG
Cadmium, Total	2.4		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG
Chromium, Total	26		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG
Lead, Total	340		mg/kg	2.5	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG
Mercury, Total	0.24		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:39	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.5	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:15	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-04

Date Collected: 05/03/11 09:20

Client ID: PX-10

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	8.8		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG
Barium, Total	230		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG
Cadmium, Total	5.3		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG
Chromium, Total	30		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG
Lead, Total	410		mg/kg	2.2	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG
Mercury, Total	0.76		mg/kg	0.08	--	1	05/05/11 16:40	05/06/11 11:44	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.2	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG
Silver, Total	0.46		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:18	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-05  
 Client ID: PX-11  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 84%

Date Collected: 05/03/11 10:18  
 Date Received: 05/04/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	7.8		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG
Barium, Total	310		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG
Cadmium, Total	3.7		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG
Chromium, Total	28		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG
Lead, Total	270		mg/kg	2.1	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG
Mercury, Total	0.38		mg/kg	0.08	--	1	05/05/11 16:40	05/06/11 11:46	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.1	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.43	--	1	05/06/11 10:00	05/09/11 17:20	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-06  
 Client ID: PX-12  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 83%

Date Collected: 05/03/11 11:18  
 Date Received: 05/04/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	8.7		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG
Barium, Total	120		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG
Cadmium, Total	2.6		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG
Chromium, Total	25		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG
Lead, Total	240		mg/kg	2.4	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG
Mercury, Total	0.38		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:48	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.4	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:23	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-07  
 Client ID: PX-13  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 75%

Date Collected: 05/03/11 11:50  
 Date Received: 05/04/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	9.9		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG
Barium, Total	96		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG
Cadmium, Total	1.7		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG
Chromium, Total	21		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG
Lead, Total	150		mg/kg	2.5	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG
Mercury, Total	0.37		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:50	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.5	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.50	--	1	05/06/11 10:00	05/09/11 17:26	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-08

Date Collected: 05/03/11 13:19

Client ID: PX-14

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 73%

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	0.46	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG
Barium, Total	110		mg/kg	0.46	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG
Cadmium, Total	3.0		mg/kg	0.46	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG
Chromium, Total	24		mg/kg	0.46	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG
Lead, Total	120		mg/kg	2.3	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG
Mercury, Total	0.27		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:51	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.3	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.46	--	1	05/06/11 10:00	05/09/11 17:35	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-09

Date Collected: 05/03/11 13:50

Client ID: PX-15

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Arsenic, Total	5.2		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG
Barium, Total	62		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG
Cadmium, Total	0.58		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG
Chromium, Total	15		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG
Lead, Total	38		mg/kg	2.4	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG
Mercury, Total	ND		mg/kg	0.09	--	1	05/05/11 16:40	05/06/11 11:53	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.4	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.48	--	1	05/06/11 10:00	05/09/11 17:37	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-10

Date Collected: 05/03/11 10:20

Client ID: PX-11D

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	7.8		mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG
Barium, Total	150		mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG
Cadmium, Total	3.6		mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG
Chromium, Total	30		mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG
Lead, Total	260		mg/kg	2.0	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG
Mercury, Total	0.50		mg/kg	0.08	--	1	05/05/11 16:40	05/06/11 11:55	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.0	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 17:40	EPA 3050B	97,6010B	MG



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

## 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): 01-10 Batch: WG466426-1									
Mercury, Total	ND	mg/kg	0.08	--	1	05/05/11 16:40	05/06/11 11:22	97,7471A	AH

### Prep Information

Digestion Method: EPA 7471A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01-10 Batch: WG466592-1									
Arsenic, Total	ND	mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG
Barium, Total	ND	mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG
Cadmium, Total	ND	mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG
Chromium, Total	ND	mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG
Lead, Total	ND	mg/kg	2.0	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG
Selenium, Total	ND	mg/kg	2.0	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG
Silver, Total	ND	mg/kg	0.40	--	1	05/06/11 10:00	05/09/11 16:44	97,6010B	MG

### Prep Information

Digestion Method: EPA 3050B

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Limits			
MCP Total Metals - Westborough Lab Associated sample(s): 01-10 Batch: WG466426-2 WG466426-3 SRM Lot Number: 0518-10-02									
Mercury, Total	111		95		67-133		16		30
MCP Total Metals - Westborough Lab Associated sample(s): 01-10 Batch: WG466592-2 WG466592-3 SRM Lot Number: 0518-10-02									
Arsenic, Total	104		109		81-119		9		30
Barium, Total	100		100		83-118		0		30
Cadmium, Total	102		102		82-117		4		30
Chromium, Total	106		106		80-119		0		30
Lead, Total	101		102		80-120		4		30
Selenium, Total	106		109		80-120		4		30
Silver, Total	105		105		66-134		1		30



# **INORGANICS & MISCELLANEOUS**

Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-01  
 Client ID: PX-07  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil

Date Collected: 05/03/11 08:10  
 Date Received: 05/04/11  
 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	-	05/06/11 19:30	30,2540G	HS



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-02  
 Client ID: PX-08  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil

Date Collected: 05/03/11 08:25  
 Date Received: 05/04/11  
 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	-	05/06/11 19:30	30,2540G	HS



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

**Lab ID:** L1106179-03  
**Client ID:** PX-09  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/03/11 08:40  
**Date Received:** 05/04/11  
**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	76		%	0.10	NA	1	-	05/06/11 21:05	30,2540G	HS



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

**Lab ID:** L1106179-04  
**Client ID:** PX-10  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/03/11 09:20  
**Date Received:** 05/04/11  
**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	86		%	0.10	NA	1	-	05/06/11 21:05	30,2540G	HS



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

**SAMPLE RESULTS**

Lab ID: L1106179-05  
 Client ID: PX-11  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil

Date Collected: 05/03/11 10:18  
 Date Received: 05/04/11  
 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	-	05/06/11 21:05	30,2540G	HS



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-06

Date Collected: 05/03/11 11:18

Client ID: PX-12

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

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	-	05/06/11 21:05	30,2540G	HS



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

**Lab ID:** L1106179-07  
**Client ID:** PX-13  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/03/11 11:50  
**Date Received:** 05/04/11  
**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	-	05/06/11 21:05	30,2540G	HS



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-08

Date Collected: 05/03/11 13:19

Client ID: PX-14

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	73		%	0.10	NA	1	-	05/06/11 21:05	30,2540G	HS



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

**Lab ID:** L1106179-09  
**Client ID:** PX-15  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/03/11 13:50  
**Date Received:** 05/04/11  
**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	80		%	0.10	NA	1	-	05/06/11 21:05	30,2540G	HS



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## SAMPLE RESULTS

Lab ID: L1106179-10

Date Collected: 05/03/11 10:20

Client ID: PX-11D

Date Received: 05/04/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

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	-	05/06/11 21:05	30,2540G	HS



## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01-02	QC Batch ID: WG466663-1	QC Sample: L1106179-02	Client ID: PX-08		
Solids, Total	83	83	%	0		20
General Chemistry - Westborough Lab	Associated sample(s): 03-10	QC Batch ID: WG466670-1	QC Sample: L1106179-05	Client ID: PX-11		
Solids, Total	84	84	%	0		20



Project Name: FORMER TOMBARELLO

Lab Number: L1106179

Project Number: H-1416

Report Date: 05/12/11

## 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(*)
L1106179-01A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-02A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-03A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-04A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-05A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

\*Values in parentheses indicate holding time in days



Project Name: FORMER TOMBARELLO

Project Number: H-1416

Lab Number: L1106179

Report Date: 05/12/11

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1106179-06A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-07A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-08A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-09A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1106179-10A	Amber 250ml unpreserved	A	N/A	3.0	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

\*Values in parentheses indicate holding time in days



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

## 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.
- LCS D** - 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.
- MS D** - 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.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- 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.

**Report Format:** Data Usability Report



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

*Data Qualifiers*

- 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.
- 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.

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106179  
**Report Date:** 05/12/11

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 93 Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Draft Revisions. September-December 2009.
- 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 February 23, 2011 - 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, 353.2, SM2130B, 2320B, 4500CI-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, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-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, 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,Ti) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-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), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Ti,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, 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 420.1, 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. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 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, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, 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, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**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 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 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.***

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 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 NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission 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 S<sup>2-</sup>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, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, 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 Methylnaphthalenes, 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 Job # **61106179**

## Project Information

Project Name: **Former Tompawet II**  
 Project Location: **Lawrence, MA**  
 Project #: **H-1416**  
 Project Manager: **Shannon Hunt**

ALPHA Quote #:

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)

Date Due: **5/11/11** Time:

## 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)

## Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Billing Information

Same as Client info  PO #:

## Client Information

Client: **High & Bond**  
 Address: **446 Main Street**  
**Worcester, MA 01608**  
 Phone: **508 754 2201**  
 Fax: **508 795 1087**  
 Email: **smhunta@highbond.com**

## Regulatory Requirements/Report Limits

State / Fed Program **MA ERP** Criteria **SCA**

## 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?

**ANALYSIS**  
**RCS 8082 Subst**  
**RCP-R & Metals**

**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		Sample Matrix	Sampler's Initials	TOTAL # BOTTLES
		Date	Time			
06/79	PX-07	5/3/11	810	S	SMH	1
	PX-08	5/3/11	825	S	SMH	1
	PX-09	5/3/11	840	S	SMA	1
	PX-10	5/3/11	920	S	SMH	1
	PX-11	5/3/11	1018	S	SMH	1
	PX-12	5/3/11	1118	S	SMH	1
	PX-13	5/3/11	1150	S	SMH	1
	PX-14	5/3/11	1319	S	SMH	1
	PX-15	5/3/11	1350	S	SMH	1
	PX-11D	5/3/11	1020	S	SMH	1

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

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.

Container Type	AA	Received By:		Date/Time	
Preservative	4°				
		Relinquished By:	<i>[Signature]</i>	5/11/11 12:55	
				5/11/11 14:15	



## ANALYTICAL REPORT

Lab Number:	L1105997
Client:	Tighe & Bond, Inc. 446 Main Street Worcester, MA 01608
ATTN:	Shannon Hunt
Phone:	(508) 471-9627
Project Name:	FORMER TOMBARELLO
Project Number:	H-1416
Report Date:	05/06/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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.

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



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1105997-01	GRAVEL BACKFILL	LAWRENCE, MA	05/02/11 09:45
L1105997-02	LOAM	LAWRENCE, MA	05/02/11 15:35

Project Name: FORMER TOMBARELLO

Lab Number: L1105997

Project Number: H-1416

Report Date: 05/06/11

**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.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
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
<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
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?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

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



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

### 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.

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#### MCP Related Narratives

##### Report Submission

This report replaces the report issued on May 4, 2011. The PCB samples were re-extracted to confirm the results of the original analyses. Only the re-extract results are reported.

##### Sample Receipt

In reference to question H:

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

##### Metals

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:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/06/11

# ORGANICS

# PCBS

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

**SAMPLE RESULTS**

Lab ID: L1105997-01  
 Client ID: GRAVEL BACKFILL  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Analytical Method: 93,8082  
 Analytical Date: 05/06/11 12:09  
 Analyst: KB  
 Percent Solids: 93%

Date Collected: 05/02/11 09:45  
 Date Received: 05/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 05/05/11 16:00  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 05/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 05/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	34.3	--	1
Aroclor 1221	ND		ug/kg	34.3	--	1
Aroclor 1232	ND		ug/kg	34.3	--	1
Aroclor 1242	ND		ug/kg	34.3	--	1
Aroclor 1248	ND		ug/kg	34.3	--	1
Aroclor 1254	ND		ug/kg	34.3	--	1
Aroclor 1260	ND		ug/kg	34.3	--	1
Aroclor 1262	ND		ug/kg	34.3	--	1
Aroclor 1268	ND		ug/kg	34.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	82		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	107		30-150

**Project Name:** FORMER TOMBARELLO**Lab Number:** L1105997**Project Number:** H-1416**Report Date:** 05/06/11**SAMPLE RESULTS**

**Lab ID:** L1105997-02  
**Client ID:** LOAM  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil  
**Analytical Method:** 93,8082  
**Analytical Date:** 05/06/11 12:21  
**Analyst:** KB  
**Percent Solids:** 81%

**Date Collected:** 05/02/11 15:35  
**Date Received:** 05/02/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3540C  
**Extraction Date:** 05/05/11 16:00  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 05/06/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 05/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>MCP Polychlorinated Biphenyls - Westborough Lab</b>						
Aroclor 1016	ND		ug/kg	41.0	--	1
Aroclor 1221	ND		ug/kg	41.0	--	1
Aroclor 1232	ND		ug/kg	41.0	--	1
Aroclor 1242	ND		ug/kg	41.0	--	1
Aroclor 1248	ND		ug/kg	41.0	--	1
Aroclor 1254	ND		ug/kg	41.0	--	1
Aroclor 1260	ND		ug/kg	41.0	--	1
Aroclor 1262	ND		ug/kg	41.0	--	1
Aroclor 1268	ND		ug/kg	41.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	64		30-150
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	80		30-150

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 93,8082  
Analytical Date: 05/06/11 12:34  
Analyst: KB

Extraction Method: EPA 3540C  
Extraction Date: 05/05/11 16:00  
Cleanup Method1: EPA 3665A  
Cleanup Date1: 05/06/11  
Cleanup Method2: EPA 3660B  
Cleanup Date2: 05/06/11

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-02 Batch: WG466357-1					
Aroclor 1016	ND		ug/kg	32.1	--
Aroclor 1221	ND		ug/kg	32.1	--
Aroclor 1232	ND		ug/kg	32.1	--
Aroclor 1242	ND		ug/kg	32.1	--
Aroclor 1248	ND		ug/kg	32.1	--
Aroclor 1254	ND		ug/kg	32.1	--
Aroclor 1260	ND		ug/kg	32.1	--
Aroclor 1262	ND		ug/kg	32.1	--
Aroclor 1268	ND		ug/kg	32.1	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	94		30-150
2,4,5,6-Tetrachloro-m-xylene	130		30-150
Decachlorobiphenyl	141		30-150

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Limits			
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-02 Batch: WG466357-2 WG466357-3									
Aroclor 1016	81		74		40-140		9		30
Aroclor 1260	82		86		40-140		5		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,4,5,6-Tetrachloro-m-xylene	66		70		30-150
Decachlorobiphenyl	87		89		30-150
2,4,5,6-Tetrachloro-m-xylene	82		130		30-150
Decachlorobiphenyl	134		124		30-150



## METALS

Project Name: FORMER TOMBARELLO

Lab Number: L1105997

Project Number: H-1416

Report Date: 05/06/11

## SAMPLE RESULTS

Lab ID: L1105997-01

Date Collected: 05/02/11 09:45

Client ID: GRAVEL BACKFILL

Date Received: 05/02/11

Sample Location: LAWRENCE, MA

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	6.5		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG
Barium, Total	29		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG
Cadmium, Total	ND		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG
Chromium, Total	31		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG
Lead, Total	4.1		mg/kg	2.1	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG
Mercury, Total	ND		mg/kg	0.08	--	1	05/03/11 17:30	05/04/11 10:59	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.1	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:49	EPA 3050B	97,6010B	MG



Project Name: FORMER TOMBARELLO

Lab Number: L1105997

Project Number: H-1416

Report Date: 05/06/11

## SAMPLE RESULTS

Lab ID: L1105997-02  
 Client ID: LOAM  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil  
 Percent Solids: 81%

Date Collected: 05/02/11 15:35  
 Date Received: 05/02/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>MCP Total Metals - Westborough Lab</b>											
Arsenic, Total	6.2		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG
Barium, Total	35		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG
Cadmium, Total	ND		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG
Chromium, Total	16		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG
Lead, Total	29		mg/kg	2.1	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG
Mercury, Total	ND		mg/kg	0.08	--	1	05/03/11 17:30	05/04/11 11:01	EPA 7471A	97,7471A	AH
Selenium, Total	ND		mg/kg	2.1	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG
Silver, Total	ND		mg/kg	0.42	--	1	05/03/11 10:00	05/03/11 23:56	EPA 3050B	97,6010B	MG



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

## 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): 01-02 Batch: WG465884-1									
Arsenic, Total	ND	mg/kg	0.40	--	1	05/03/11 10:00	05/03/11 23:12	97,6010B	MG
Barium, Total	ND	mg/kg	0.40	--	1	05/03/11 10:00	05/03/11 23:12	97,6010B	MG
Cadmium, Total	ND	mg/kg	0.40	--	1	05/03/11 10:00	05/03/11 23:12	97,6010B	MG
Chromium, Total	ND	mg/kg	0.40	--	1	05/03/11 10:00	05/03/11 23:12	97,6010B	MG
Lead, Total	ND	mg/kg	2.0	--	1	05/03/11 10:00	05/03/11 23:12	97,6010B	MG
Selenium, Total	ND	mg/kg	2.0	--	1	05/03/11 10:00	05/03/11 23:12	97,6010B	MG
Silver, Total	ND	mg/kg	0.40	--	1	05/03/11 10:00	05/03/11 23:12	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 Batch: WG465977-1									
Mercury, Total	ND	mg/kg	0.08	--	1	05/03/11 17:30	05/04/11 10:50	97,7471A	AH

### Prep Information

Digestion Method: EPA 7471A

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	Limits				
MCP Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG465884-2 WG465884-3 SRM Lot Number: 0518-10-02									
Arsenic, Total	104		104		81-119		0		30
Barium, Total	100		100		83-118		0		30
Cadmium, Total	98		98		82-117		0		30
Chromium, Total	101		101		80-119		0		30
Lead, Total	100		100		80-120		0		30
Selenium, Total	106		106		80-120		0		30
Silver, Total	104		104		66-134		0		30
MCP Total Metals - Westborough Lab Associated sample(s): 01-02 Batch: WG465977-2 WG465977-3 SRM Lot Number: 0518-10-02									
Mercury, Total	108		108		68-133		0		30



# **INORGANICS & MISCELLANEOUS**

Project Name: FORMER TOMBARELLO

Lab Number: L1105997

Project Number: H-1416

Report Date: 05/06/11

## SAMPLE RESULTS

Lab ID: L1105997-01  
 Client ID: GRAVEL BACKFILL  
 Sample Location: LAWRENCE, MA  
 Matrix: Soil

Date Collected: 05/02/11 09:45  
 Date Received: 05/02/11  
 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	93		%	0.10	NA	1	-	05/03/11 10:16	30,2540G	9



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

**SAMPLE RESULTS**

**Lab ID:** L1105997-02  
**Client ID:** LOAM  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/02/11 15:35  
**Date Received:** 05/02/11  
**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	81		%	0.10	NA	1	-	05/03/11 10:16	30,2540G	9



## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO

**Lab Number:** L1105997

**Project Number:** H-1416

**Report Date:** 05/06/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s):	01-02	QC Batch ID: WG465865-1	QC Sample: L1106012-02	Client ID: DUP Sample		
Solids, Total	79	78	%	1		20



Project Name: FORMER TOMBARELLO

Lab Number: L1105997

Project Number: H-1416

Report Date: 05/06/11

## 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(*)
L1105997-01A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)
L1105997-02A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	MCP-CR-6010T-10(180),MCP-AS-6010T-10(180),MCP-7471T-10(28),MCP-CD-6010T-10(180),TS(7),MCP-8082-10-3540C(365),MCP-AG-6010T-10(180),MCP-SE-6010T-10(180),MCP-BA-6010T-10(180),MCP-PB-6010T-10(180)

\*Values in parentheses indicate holding time in days

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

## 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.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- 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.

**Report Format:** Data Usability Report



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

*Data Qualifiers*

- 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.
- 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.

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1105997  
**Report Date:** 05/06/11

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 93 Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Draft Revisions. September-December 2009.
- 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 February 23, 2011 - 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, 353.2, SM2130B, 2320B, 4500CI-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, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-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, 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,Ti) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-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), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Ti,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, 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 420.1, 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. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO<sub>3</sub>-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 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, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH<sub>3</sub>-H, 4500NO<sub>3</sub>-F, 4500NO<sub>2</sub>-B, 4500P-E, 4500-S<sub>2</sub>-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO<sub>3</sub>-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO<sub>3</sub>-F, 4500NO<sub>2</sub>-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B<sub>5</sub>+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH<sub>3</sub>-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**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 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO<sub>3</sub>-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 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.***

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH<sub>3</sub>-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 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 NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission 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 S<sup>2-</sup>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, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, 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 Methylnaphthalenes, 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 Job #: 61105997

Date Rec'd in Lab: 5/2/11

Report Information - Data Deliverables

## Project Information

Project Name: former Tombarello  
 Project Location: Lawrence, MA  
 Project #: H-1416  
 Project Manager: Shannon Hunt  
 ALPHA Quote #:

## Billing Information

PO #:

## Client Information

Client: Tighe & Bond  
 Address: 446 Main Street  
 Worcester MA 01608  
 Phone: 508 754 2201  
 Fax: 508 795 1087  
 Email: smhunt@tighebond.com

## Regulatory Requirements/Report Limits

State / Fed Program MA MCP Criteria 35-P

## MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

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?  Yes  No

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: 5/4/11 Time: 5pm

These samples have been previously analyzed by Alpha

## 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**

~~PCBs 8062 Soxhlet~~

~~RCRA-8 Metals~~

**SAMPLE HANDLING**

Filtration \_\_\_\_\_

Done

Not needed

Lab to do

Preservation \_\_\_\_\_

Lab to do

(Please specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials
-----------------------------	-----------	-----------------	------	---------------	--------------------

05997.1	Gravel Backfill	5/2/11	945	S SMH	X
2	Loam	5/2/11	1535	S SMH	X

59971

## PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

Relinquished By: SMH Date/Time: 5/2/11

Received By: [Signature] Date/Time: 5/2/11 1650

Container Type: A A  
 Preservative: 40 40

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.



## ANALYTICAL REPORT

Lab Number:	L1106226
Client:	Tighe & Bond, Inc. 446 Main Street Worcester, MA 01608
ATTN:	Shannon Hunt
Phone:	(508) 471-9627
Project Name:	FORMER TOMBARELLO
Project Number:	H-1416
Report Date:	05/12/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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.

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



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1106226-01	GRAVEL BACKFILL	LAWRENCE, MA	05/02/11 09:45

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

### 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.

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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: 05/12/11

# **INORGANICS & MISCELLANEOUS**

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

**SAMPLE RESULTS**

**Lab ID:** L1106226-01  
**Client ID:** GRAVEL BACKFILL  
**Sample Location:** LAWRENCE, MA  
**Matrix:** Soil

**Date Collected:** 05/02/11 09:45  
**Date Received:** 05/02/11  
**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	93		%	0.10	NA	1	-	05/03/11 10:16	30,2540G	MF
Chromium, Hexavalent	ND		mg/kg	0.86	--	1	05/09/11 23:00	05/11/11 13:21	1,7196A	ST



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG466989-1									
Chromium, Hexavalent	ND	mg/kg	0.80	--	1	05/09/11 23:00	05/11/11 13:14	1,7196A	ST

### Lab Control Sample Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG466989-2								
Chromium, Hexavalent	107	-	-	-	80-120	-	-	20



**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

Parameter	Native Sample	MS Added	MS Found	%Recovery	MS Found	MSD	%Recovery	MSD	Recovery Limits	RPD	Qual	RPD	Qual	RPD	Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG466989-4 QC Sample: L1106226-01 Client ID: GRAVEL BACKFILL															
Chromium, Hexavalent	ND	1130	1100	97	-	-	-	-	75-125	-	-	-	-	-	20



## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG466989-3	QC Sample: L1106226-01	Client ID: GRAVEL BACKFILL			
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01	QC Batch ID: WG467121-1	QC Sample: L1106049-20	Client ID: DUP Sample			
Solids, Total	79	78	%	1		20



**Project Name:** FORMER TOMBARELLO**Lab Number:** L1106226**Project Number:** H-1416**Report Date:** 05/12/11**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(*)
L1106226-01A	Amber 250ml unpreserved	A	N/A	3	Y	Absent	HEXCR-7196(30)

\*Values in parentheses indicate holding time in days

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

## 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.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- 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.

**Report Format:** Data Usability Report



**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

*Data Qualifiers*

- 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.
- 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.

**Project Name:** FORMER TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1106226  
**Report Date:** 05/12/11

## 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.

## 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 February 23, 2011 - 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, 353.2, SM2130B, 2320B, 4500CI-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, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-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, 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,Ti) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-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), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Ti,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, 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 420.1, 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. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 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, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, 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, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**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 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 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.***

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 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 NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission 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 S<sup>2-</sup>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, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, 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 Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.





## ANALYTICAL REPORT

Lab Number:	L1107739
Client:	Tighe & Bond, Inc. 446 Main Street Worcester, MA 01608
ATTN:	Marc Richards
Phone:	(508) 754-2201
Project Name:	TOMBARELLO
Project Number:	H-1416
Report Date:	06/08/11

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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.

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



**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1107739  
**Report Date:** 06/08/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1107739-01	W-1 TRUCK TIRE	LAWRENCE, MA	06/02/11 09:50
L1107739-02	W-2 BLUE ROLL-OFF	LAWRENCE, MA	06/02/11 10:00
L1107739-03	W-4 GRABBER CLAW	LAWRENCE, MA	06/02/11 10:05
L1107739-04	W-5 GRABBER TIRE	LAWRENCE, MA	06/02/11 10:07
L1107739-05	W-6 SCRAP 1	LAWRENCE, MA	06/02/11 10:10
L1107739-06	W-7 SCRAP 2	LAWRENCE, MA	06/02/11 10:12
L1107739-07	W-8 EXCAVATOR BUCKET	LAWRENCE, MA	06/02/11 10:20

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1107739  
**Report Date:** 06/08/11

### 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.

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### PCB

The surrogate recoveries for the following samples are outside the individual acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene, but within the overall method allowances. The results of the original analyses are reported; however, all associated compounds are considered to have a potential bias.

L1107739-01: 155%

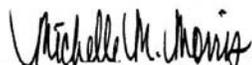
L1107739-06: 158%

The surrogate recoveries for L1107739-02 are above the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene (168%) and Decachlorobiphenyl (152%). Since the sample was non-detect for all target analytes, re-analysis was not required.

The surrogate recoveries for L1107739-03 are above the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene (175%) and Decachlorobiphenyl (161%). Since the sample was non-detect for all target analytes, re-analysis was not required.

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: 06/08/11

# ORGANICS

# PCBS

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

## SAMPLE RESULTS

Lab ID: L1107739-01  
 Client ID: W-1 TRUCK TIRE  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 15:17  
 Analyst: KB

Date Collected: 06/02/11 09:50  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	98		30-150
Decachlorobiphenyl	77		30-150
2,4,5,6-Tetrachloro-m-xylene	155	Q	30-150
Decachlorobiphenyl	137		30-150

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

## SAMPLE RESULTS

Lab ID: L1107739-02  
 Client ID: W-2 BLUE ROLL-OFF  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 15:30  
 Analyst: KB

Date Collected: 06/02/11 10:00  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	83		30-150
2,4,5,6-Tetrachloro-m-xylene	<b>168</b>	Q	30-150
Decachlorobiphenyl	<b>152</b>	Q	30-150

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

## SAMPLE RESULTS

Lab ID: L1107739-03  
 Client ID: W-4 GRABBER CLAW  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 15:44  
 Analyst: KB

Date Collected: 06/02/11 10:05  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	95		30-150
2,4,5,6-Tetrachloro-m-xylene	<b>175</b>	Q	30-150
Decachlorobiphenyl	<b>161</b>	Q	30-150

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

## SAMPLE RESULTS

Lab ID: L1107739-04  
 Client ID: W-5 GRABBER TIRE  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 15:57  
 Analyst: KB

Date Collected: 06/02/11 10:07  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	95		30-150
Decachlorobiphenyl	69		30-150
2,4,5,6-Tetrachloro-m-xylene	146		30-150
Decachlorobiphenyl	119		30-150

**Project Name:** TOMBARELLO**Lab Number:** L1107739**Project Number:** H-1416**Report Date:** 06/08/11**SAMPLE RESULTS**

Lab ID: L1107739-05  
 Client ID: W-6 SCRAP 1  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 16:10  
 Analyst: KB

Date Collected: 06/02/11 10:10  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB by GC - Westborough Lab</b>						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	134		30-150
Decachlorobiphenyl	115		30-150

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

## SAMPLE RESULTS

Lab ID: L1107739-06  
 Client ID: W-7 SCRAP 2  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 16:23  
 Analyst: KB

Date Collected: 06/02/11 10:12  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	73		30-150
2,4,5,6-Tetrachloro-m-xylene	<b>158</b>	Q	30-150
Decachlorobiphenyl	134		30-150

**Project Name:** TOMBARELLO**Lab Number:** L1107739**Project Number:** H-1416**Report Date:** 06/08/11**SAMPLE RESULTS**

Lab ID: L1107739-07  
 Client ID: W-8 EXCAVATOR BUCKET  
 Sample Location: LAWRENCE, MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 06/07/11 16:37  
 Analyst: KB

Date Collected: 06/02/11 10:20  
 Date Received: 06/02/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 06/04/11 09:15  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 06/06/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	101		30-150
Decachlorobiphenyl	99		30-150
2,4,5,6-Tetrachloro-m-xylene	146		30-150
Decachlorobiphenyl	130		30-150

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082  
Analytical Date: 06/07/11 16:50  
Analyst: KB

Extraction Method: EPA 3540C  
Extraction Date: 06/04/11 09:15  
Cleanup Method1: EPA 3665A  
Cleanup Date1: 06/06/11  
Cleanup Method2: EPA 3660B  
Cleanup Date2: 06/06/11

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-07 Batch: WG471213-1					
Aroclor 1016	ND		ug Abs	0.300	--
Aroclor 1221	ND		ug Abs	0.300	--
Aroclor 1232	ND		ug Abs	0.300	--
Aroclor 1242	ND		ug Abs	0.300	--
Aroclor 1248	ND		ug Abs	0.200	--
Aroclor 1254	ND		ug Abs	0.300	--
Aroclor 1260	ND		ug Abs	0.200	--
Aroclor 1262	ND		ug Abs	0.100	--
Aroclor 1268	ND		ug Abs	0.100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	136		30-150
Decachlorobiphenyl	145		30-150

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1107739  
**Report Date:** 06/08/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG471213-2 WG471213-3								
Aroclor 1016	123		112		40-140	9		50
Aroclor 1260	110		77		40-140	36		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	111		50		30-150
Decachlorobiphenyl	82		61		30-150

Project Name: TOMBARELLO

Lab Number: L1107739

Project Number: H-1416

Report Date: 06/08/11

## 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(*)
L1107739-01A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1107739-02A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1107739-03A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1107739-04A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1107739-05A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1107739-06A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1107739-07A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)

\*Values in parentheses indicate holding time in days

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1107739  
**Report Date:** 06/08/11

## 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.
LFB	- Laboratory Fortified Blank: 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.
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.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### 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.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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

Report Format: Data Usability Report



**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1107739  
**Report Date:** 06/08/11

**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**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.

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1107739  
**Report Date:** 06/08/11

## 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 June 7, 2011 - 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, 353.2, SM2130B, 2320B, 4500CI-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, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-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, 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); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-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), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; 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,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LCHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, 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 420.1, 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. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 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, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, 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, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**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 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 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.**

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 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 NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission 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 S<sup>2-</sup> 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, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)*

**The following analytes are not included in our current NELAP/TNI Scope of Accreditation:**

**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 Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix, SO<sub>4</sub> in a soil matrix.

# CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA Job #: 21107739

Date Rec'd in Lab: 6/2/11

Project Information

Billing Information  
 Same as Client info PO #:  
 EMAIL  
 Add'l Deliverables

Report Information - Data Deliverables

Project Name: Tombarello  
 Project Location: Lawrence, MA  
 Project #: H-1416  
 Project Manager: Marc Richards  
 ALPHA Quote #:

Regulatory Requirements/Report Limits  
 State / Fed Program Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

Turn-Around Time

Client Information  
 Client: Tighet + Bond  
 Address: 446 Main St 13th Floor  
 Worcester, MA  
 Phone: (508) 471-9621  
 Fax: mrichards@tighetbond.com

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)

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: 6/9/11 Time:

These samples have been previously analyzed by Alpha

Sample ID

Collection Date Time

Sample Matrix

Sampler's Initials

Container Type  
 Preservative

ANALYSIS

Sample Specific Comments

Date/Time

Relinquished By: *A. Mend*

Received By: *J.M. Stanley*

Date/Time

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT  
 MA MCP or CT RCP?

Relinquished By: *A. Mend*

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

Are MCP Analytical Methods Required?  
 Yes  No  
 Are Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)  
 Yes  No  
 Are CT RCP (Reasonable Confidence Protocols) Required?  
 Yes  No

Relinquished By: *A. Mend*

Sample Handling  
 Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
 Preservation  
 Lab to do  
 (Please specify below)

Sample Specific Comments

Relinquished By: *A. Mend*

TOTAL # BOTTLES

Sample Specific Comments

Relinquished By: *A. Mend*

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.

Sample Specific Comments

Relinquished By: *A. Mend*

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

Sample Specific Comments

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Sample Specific Comments

Relinquished By: *A. Mend*

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

Sample Specific Comments

Relinquished By: *A. Mend*



## ANALYTICAL REPORT

Lab Number:	L1109604
Client:	Tighe & Bond, Inc. 446 Main Street Worcester, MA 01608
ATTN:	Marc Richards
Phone:	(508) 754-2201
Project Name:	TOMBARELLO
Project Number:	H-1416
Report Date:	07/05/11

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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.

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



**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1109604  
**Report Date:** 07/05/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1109604-01	W-9 (MAGNET)	LAWRENCE,MA	06/29/11 11:00
L1109604-02	W-10 (TRACK 1)	LAWRENCE,MA	06/29/11 11:05
L1109604-03	W-11 (TRACK 2)	LAWRENCE,MA	06/29/11 11:10

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1109604  
**Report Date:** 07/05/11

### 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.

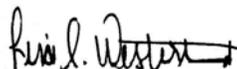
Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

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:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 07/05/11

# ORGANICS

# PCBS

Project Name: TOMBARELLO

Lab Number: L1109604

Project Number: H-1416

Report Date: 07/05/11

## SAMPLE RESULTS

Lab ID: L1109604-01  
 Client ID: W-9 (MAGNET)  
 Sample Location: LAWRENCE,MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 07/03/11 14:01  
 Analyst: SS

Date Collected: 06/29/11 11:00  
 Date Received: 06/29/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 07/01/11 09:55  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 07/02/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 07/02/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	56		30-150
Decachlorobiphenyl	47		30-150
2,4,5,6-Tetrachloro-m-xylene	58		30-150
Decachlorobiphenyl	48		30-150

**Project Name:** TOMBARELLO**Lab Number:** L1109604**Project Number:** H-1416**Report Date:** 07/05/11**SAMPLE RESULTS**

Lab ID: L1109604-02  
 Client ID: W-10 (TRACK 1)  
 Sample Location: LAWRENCE,MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 07/03/11 14:14  
 Analyst: SS

Date Collected: 06/29/11 11:05  
 Date Received: 06/29/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 07/01/11 09:55  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 07/02/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 07/02/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PCB by GC - Westborough Lab</b>						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	49		30-150
Decachlorobiphenyl	41		30-150
2,4,5,6-Tetrachloro-m-xylene	52		30-150
Decachlorobiphenyl	42		30-150

Project Name: TOMBARELLO

Lab Number: L1109604

Project Number: H-1416

Report Date: 07/05/11

## SAMPLE RESULTS

Lab ID: L1109604-03  
 Client ID: W-11 (TRACK 2)  
 Sample Location: LAWRENCE,MA  
 Matrix: Wipe  
 Analytical Method: 1,8082  
 Analytical Date: 07/03/11 14:27  
 Analyst: SS

Date Collected: 06/29/11 11:10  
 Date Received: 06/29/11  
 Field Prep: Not Specified  
 Extraction Method: EPA 3540C  
 Extraction Date: 07/01/11 09:55  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 07/02/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 07/02/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB by GC - Westborough Lab						
Aroclor 1016	ND		ug Abs	0.300	--	1
Aroclor 1221	ND		ug Abs	0.300	--	1
Aroclor 1232	ND		ug Abs	0.300	--	1
Aroclor 1242	ND		ug Abs	0.300	--	1
Aroclor 1248	ND		ug Abs	0.200	--	1
Aroclor 1254	ND		ug Abs	0.300	--	1
Aroclor 1260	ND		ug Abs	0.200	--	1
Aroclor 1262	ND		ug Abs	0.100	--	1
Aroclor 1268	ND		ug Abs	0.100	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	72		30-150
Decachlorobiphenyl	60		30-150
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	62		30-150

Project Name: TOMBARELLO

Lab Number: L1109604

Project Number: H-1416

Report Date: 07/05/11

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082  
Analytical Date: 07/03/11 13:21  
Analyst: SS

Extraction Method: EPA 3540C  
Extraction Date: 07/01/11 09:55  
Cleanup Method1: EPA 3665A  
Cleanup Date1: 07/02/11  
Cleanup Method2: EPA 3660B  
Cleanup Date2: 07/02/11

Parameter	Result	Qualifier	Units	RL	MDL
PCB by GC - Westborough Lab for sample(s): 01-03 Batch: WG476572-1					
Aroclor 1016	ND		ug Abs	0.300	--
Aroclor 1221	ND		ug Abs	0.300	--
Aroclor 1232	ND		ug Abs	0.300	--
Aroclor 1242	ND		ug Abs	0.300	--
Aroclor 1248	ND		ug Abs	0.200	--
Aroclor 1254	ND		ug Abs	0.300	--
Aroclor 1260	ND		ug Abs	0.200	--
Aroclor 1262	ND		ug Abs	0.100	--
Aroclor 1268	ND		ug Abs	0.100	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	58		30-150
2,4,5,6-Tetrachloro-m-xylene	72		30-150
Decachlorobiphenyl	58		30-150

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1109604  
**Report Date:** 07/05/11

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PCB by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG476572-2 WG476572-3								
Aroclor 1016	93		58		40-140	46		50
Aroclor 1260	75		46		40-140	47		50

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
2,4,5,6-Tetrachloro-m-xylene	71		43		30-150
Decachlorobiphenyl	60		36		30-150
2,4,5,6-Tetrachloro-m-xylene	74		42		30-150
Decachlorobiphenyl	61		36		30-150

Project Name: TOMBARELLO

Lab Number: L1109604

Project Number: H-1416

Report Date: 07/05/11

**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(*)
L1109604-01A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1109604-02A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)
L1109604-03A	Amber 100ml Hexane preserved	A	N/A	6	Y	Absent	PCB-8082LL-3540C(14)

\*Values in parentheses indicate holding time in days

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1109604  
**Report Date:** 07/05/11

## 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.
LFB	- Laboratory Fortified Blank: 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.
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.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### 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.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- 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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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

Report Format: Data Usability Report



**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1109604  
**Report Date:** 07/05/11

**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**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.

**Project Name:** TOMBARELLO  
**Project Number:** H-1416

**Lab Number:** L1109604  
**Report Date:** 07/05/11

## 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 June 7, 2011 - 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, 353.2, SM2130B, 2320B, 4500CI-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, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-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, 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); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-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), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; 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,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 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-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, 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. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 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, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, 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, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**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 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 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.**

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 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 NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission 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 S<sup>2-</sup> 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.)*

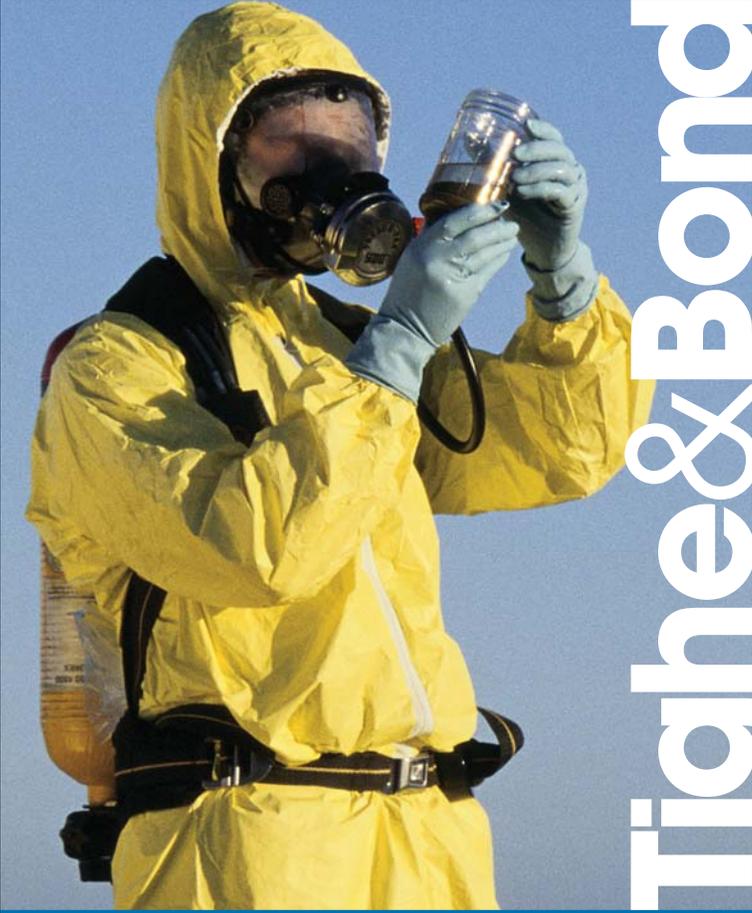
*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)*

**The following analytes are not included in our current NELAP/TNI Scope of Accreditation:**

**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 Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix, SO<sub>4</sub> in a soil matrix.





# Tighe & Bond



Job No. 1316789  
 Customer PO # \_\_\_\_\_  
 Customer Name: Charter Env.  
 Address: \_\_\_\_\_  
 Telephone # \_\_\_\_\_  
 Billing Contact: \_\_\_\_\_  
 Billing Type: T&M Quote Contract \_\_\_\_\_



**Environmental Service  
 Division**  
 275 Allens Avenue  
 Providence, RI 02905  
 Tel: (401) 781-6340  
 Fax: (401) 781-9710

Day & Date Fri 5-20-11  
 Manifest No. \_\_\_\_\_ ( )  
 Manifest No. 004189633 ( )  
 Manifest No. \_\_\_\_\_ ( )  
 Generator Former Tomarelli Scrap  
 Job Location 207 Marlboro St  
 Lawrence MA 01841  
 Contact Person \_\_\_\_\_  
 Contact Phone \_\_\_\_\_

**LABOR:**

Name	Title	Start	Arrive	Depart	On Site	Lunch
<u>Chris</u>		<u>9 AM</u>	<u>10:15</u>	<u>11:15</u>	<u>3 PM</u>	
<u>Down 2</u>		↓	↓	↓	↓	
<u>* Bill only Chris → 6 hrs</u>						

**JOB DESCRIPTION:**

<u>P/M</u>	<u>3 x PAIGS</u>
	<u>1 x Pallet Empty Pails</u>
	<u>1 x Pallet Batteries</u>
	<u>6 x 85</u>
	<u>14 x 55</u>
	<u>2 x 30</u>
	<u>1 x 15</u>
	<u>2 x 5</u>
	<u>30 x Empty</u>
Materials Sold? Yes _____ No _____	
Describe: _____	
Job Completed? Yes _____ No _____	

**MATERIALS LEFT ON SITE:**

QTY.	TYPE	SIZE

For Customer: [Signature] (Signature)  
 \_\_\_\_\_ (Print) \_\_\_\_\_ (Title)  
 \_\_\_\_\_ (Customer Authorized Representative) \_\_\_\_\_ (Date)  
5-20-11

# Interstate Refrigerant Recovery, Inc.

*"Dedicated to Protecting the Environment"*

P.O. Box 517  
Foxborough, MA 02035  
866-53FREON  
(533-7366)  
freon1@comcast.net  
[www.irri.us](http://www.irri.us)

## CERTIFICATE OF MATERIALS RECYCLED

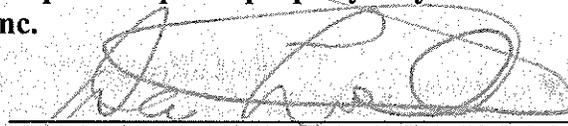
COMPANY: PSC - Lawrence MA

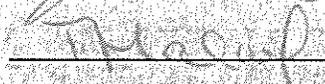
CONTACT: \_\_\_\_\_

JOB SITE \_\_\_\_\_ DATE 5/12/11

DESCRIPTION: <u>Propane Tanks</u>	QTY	<u>102</u>
DESCRIPTION: <u>Fire Extinguishers</u>	QTY	<u>87</u>
DESCRIPTION: _____	QTY	<u>1</u>

These materials have been picked up and properly recycled through Interstate Refrigerant Recovery, Inc.

Customers Signature: 

Drivers Signature: 

BILL OF LADING



1014101

464019-11

104638

B/L Number 3

DATE OF PICKUP \_\_\_\_\_ EPA IDENTIFICATION CODE NO. MP9786820430  
 GENERATOR Former Tombarello Scrap Yard ADDRESS 207 Marlston St.  
 CITY Lawrence STATE MA ZIP 01841 PHONE 978 682-0430  
 CONTACT: \_\_\_\_\_ BROKER: \_\_\_\_\_

US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers		Total Quantity	Unit Wt./Vol.	Waste No.
	No.	Type			
X <sup>a</sup> Acetylene dissolved, 2.1, UN1001	03	CY	230	P	
X <sup>b</sup> Oxygen compressed, 2.2, UN1072	08	CY	500	P	
X <sup>c</sup> Petroleum gases, Liquefied, 2.1, UN1075	3	CY	150	P	
d.					

Additional Information/Lab Code \_\_\_\_\_ Emergency Phone# 877-577-2669  
 a L.P. 3x4'cy c L.P. 8x4'cy 2x2'cy  
 b L.P. 8x4'cy d \_\_\_\_\_

CONTRACT/PO NO. \_\_\_\_\_ SPECIAL INSTRUCTIONS / REASONS FOR DELAY \_\_\_\_\_  
 NO. OF OVERPACKS USED \_\_\_\_\_  
 START TIME \_\_\_\_\_  
 ARRIVAL AT CUSTOMER \_\_\_\_\_  
 DEPARTED CUSTOMER \_\_\_\_\_  
 DELAY TIME \_\_\_\_\_

GENERATOR CERTIFICATION:  
 "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations." I also certify that all times listed above are true and correct.  
 Print Name FRIS LAWRENCE FINANCIAL LLC Signature [Signature] Date J-16-11

TRACTOR # \_\_\_\_\_ TRAILER# \_\_\_\_\_ BOX SPOTTED# \_\_\_\_\_ BOX PICKED UP# \_\_\_\_\_ LINER \_\_\_\_\_  
 TRANSPORTER #1 PHONE NUMBER 401-781-6340  
 COMPANY 21st Century ENV MGT LLC, OF RI EPA ID NO. MP9786820430  
 PRINT NAME Chris Underk SIGNATURE [Signature] DATE 5/20/14

TRANSPORTER #2 PHONE NUMBER \_\_\_\_\_  
 COMPANY \_\_\_\_\_ EPA ID NO. \_\_\_\_\_  
 PRINT NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

TSDf ARRIVAL TIME \_\_\_\_\_ REASON FOR DELAY \_\_\_\_\_  
 TSDf DEPARTURE TIME \_\_\_\_\_  
 DELAY TIME \_\_\_\_\_  
 FINISH TIME \_\_\_\_\_

CONSIGNEE/TREATMENT/STORAGE/DISPOSAL FACILITY EPA IDENTIFICATION CODE NO. RI0640098352  
 CONSIGNED TO Northland Environmental, LLC ADDRESS 225 Allens Ave  
 CITY Providence STATE RI ZIP 02903 PHONE 401-781-6340  
 THIS IS TO CERTIFY THE ACCEPTANCE OF THIS WASTE FOR TREATMENT STORAGE DISPOSAL  
 PRINT NAME [Signature] SIGNATURE [Signature] DATE 5-20-11

458677

1316789

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>MP9786820430</b>	2. Page 1 of <b>2</b>	3. Emergency Response Phone <b>(977) 577-2669</b>	4. Manifest Tracking Number <b>004189633 FLE</b>
5. Generator's Name and Mailing Address <b>FIRST LAWRENCE FINANCIAL, LLC 733 TURNPIKE STREET SUITE 171 PROVIDENCE MA 01845 (978)682-0430</b>		Generator's Site Address (if different than mailing address) <b>FORMER TOMBARELLO SCRAP YARD 207 MARSTON STREET LAWRENCE MA 01841 (978)682-0430</b>			
6. Transporter 1 Company Name <b>21ST CENTURY ENV MGT LLC, OF RI</b>		U.S. EPA ID Number <b>RI0980906986</b>			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>NORTHLAND ENVIRONMENTAL, LLC 275 ALLENS AVENUE PROVIDENCE, RI 02905 (401) 781-6340</b>		U.S. EPA ID Number <b>RI0040098352</b>			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.
RQ	1. <b>UN1993 WASTE FLAMMABLE LIQUIDS, N.O.S. (GASOLINE, MINERAL SPIRITS) 3 PGII RQ(D001) <i>not shipped</i> (70)</b>		DM		G
RQ	2. <b>UN1490 WASTE POTASSIUM PERMANGANATE 5.1 PGII RQ(D001)</b>	01	DM	40	P
	3. <b>MASSACHUSETTS STATE REGULATED OIL</b>	18	DM	825	G
	4. <b>MASSACHUSETTS STATE REGULATED OILY SOLID</b>	02	DM	375	P
13. Waste Codes D001 D018 D001 MA98 MA01					
14. Special Handling Instructions and Additional Information <b>(1) 497361-00 - ERG(128) GAS, OIL, PETROLEUM (2) 497362-00 - ERG(140) POTASSIUM PERMANGANATE (3) 497363-00 - OIL &amp; WATER (4) 497364-00 - SOIL WITH HYDROCARBON <i>1x85 1x55</i></b> <b>1x30 5x85, 13x55</b>					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Offeree's Printed/Typed Name <b>FIRST LAWRENCE FINANCIAL LLC LEADER</b>		Signature <i>[Signature]</i>		Month <b>5</b>	Day <b>16</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:		Year <b>11</b>	
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name <b>Chris Lambert</b>		Signature <i>[Signature]</i>		Month <b>5</b>	Day <b>20</b>
Transporter 2 Printed/Typed Name		Signature		Year <b>11</b>	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number					
18c. Signature of Alternate Facility (or Generator) Month Day Year					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed/Typed Name <b>Caroline Pittman</b>					
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Month <b>5</b>	Day <b>20</b>
				Year <b>11</b>	

458677

Form Approved OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number	22. Page	23. Manifest Tracking Number			
			2				
24. Generator's Name		ME 9786820430	of 2	004189633PLE			
FIRST LAWRENCE FINANCIAL, LLC							
25. Transporter Company Name		733 TURNPIKE STREET SUITE 171, NORTH ANDOVER MA 01845 (978)682-0430	U.S. EPA ID Number				
26. Transporter Company Name		U.S. EPA ID Number					
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit WL/Vol.	31. Waste Codes	
		No.	Type				
	5 MASSACHUSETTS STATE REGULATED OILY SOLID	02	CF	900	P	MA01	
	6 NON DOT/NON RCRA REGULATED SOLID (NON HAZ EMPTY DRUMS)	30	DM	650	P	MA99	
RQ	7 waste paint related material, 3, UN1263, PG II RQ=D001	01	CF	550	P	D001	
X	8 Pesticides Liquid, Toxic, n.o.s., 6.1, UN2902, PG II (GLYPHOSATE)	01	DF	06	P	MA99	
X	9 waste Aerosols, 2.1, UN1950	01	DF	25	P	D001	
X	10 waste corrosive Liquids, Acidic, Inorganic, n.o.s., 8, UN3264, PG II (Hydrogen chloride)	01	DF	03	P	D002	
X	11 waste Potassium Hydroxide solution, 8, UN1814, PG II	01	DF	40	P	D002	
RQ	12 Batteries wet filled w/ Acid, 8, UN2794, PG III (Universal waste)	01	CW	400	P	MA95	
	13 NON DOT/NON RCRA REGULATED SOLID (NON HAZ EMPTY DRUMS)	01	CW	150	P	MA99	
	14						
32. Special Handling Instructions and Additional Information							
2x443 (5) 497364-00 - SOIL WITH HYDROCARBON (6) 497365-00 - RCRA EMPTY DRUMS (7) LABPACK - (8) LABPACK - (9) LABPACK - 10) LABPACK 11) LABPACK 12) LABPACK (1x pallet) 13) 497365 (1x pallet)							
DESIGNATED FACILITY	33. Transporter Acknowledgment of Receipt of Materials		Signature			Month Day Year	
	Printed/Typed Name						
DESIGNATED FACILITY	34. Transporter Acknowledgment of Receipt of Materials		Signature			Month Day Year	
	Printed/Typed Name						
35. Discrepancy							
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
(5) H141		(6) H141		(7)		(8)	(9)

**APPLICATION AND CERTIFICATION FOR PAYMENT**

AIA DOCUMENT G702

PAGE ONE OF \_\_\_\_\_ PAGES

TO OWNER: Tighe and Bond, Inc  
5 Barfords Landing Road  
Pocasset, MA 02559

PROJECT: 2-0805 / Former Tomarello PCB Site

Invoice: 3110500  
Draw: REQ00002  
Application date: 7/15/2011  
Period ending date: 7/15/2011

DISTRIBUTE TO:  
 OWNER  
 ARCHITECT  
 CONTRACTOR

FROM CONTRACTOR: Charter Environmental, Inc.  
560 Harrison Ave 5th Floor  
Boston, MA 02118

VIA ARCHITECT:

PROJECT NO:  
PO NO:  
CONTRACT DATE:

CONTRACT FOR:

**CONTRACTOR'S APPLICATION FOR PAYMENT**

Application is made for payment, as shown above, in connection with the Contract Continuation Sheet, AIA Document G703, is attached.

- 1. ORIGINAL CONTRACT SUM \$161,954.70
- 2. NET CHANGE BY CHANGE ORDERS \$1,467.40
- 3. CONTRACT SUM TO DATE (Line 1 ± 2) \$163,422.10
- 4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$163,422.10

- 5. RETAINAGE:
  - a. 0.00 % of Completed Work (Column D + E on G703) \$ 0.00
  - b. 0.00 % of Stored Material (Column F on G703) \$ 0.00

Total Retainage (Lines 5a+5b or Total in Column I on G703) \$0.00

6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total) \$163,422.10

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 From Prior CERTIFICATE) \$159,954.70

8. CURRENT PAYMENT DUE (Line 6 Less Line 7) \$3,467.40

9. BALANCE TO FINISH INCLUDING RETAINAGE (Line 3 Less Line 6) \$0.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month	1,467.40	
TOTALS	1,467.40	
NET CHANGES by Change Order	1,467.40	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: Charter Environmental, Inc. Date: July 15, 2011

By: [Signature] State of Massachusetts County of: Middlesex

On this the 15th day of July 2011 before me,

proved to me through satisfactory evidence of identity, which was/were known to me to be the person(s) whose name(s) was/were signed on the preceding or attached document in my presence, and who swore or affirmed to me that the contents of this document are truthful and accurate to the best of his/her knowledge and belief.

Notary Public: Eileen Hogan Notary Public  
My Commission expires: 7/15/2012 My Commission Expires July 15, 2012

**ARCHITECT'S CERTIFICATE FOR PAYMENT**

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED: .....\$ 3,467.40

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: [Signature] Date: 7/15/11

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

# CONTINUATION SHEET

AIA DOCUMENT G703

Detail Page 2 of 2 Pages

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

Invoice: 3110500  
 Draw: REQ00002  
 Application date: 7/15/2011  
 Period ending date: 7/15/2011

Project:  
 2-0805 / Former Tomarelo PCB Site

In tabulations below, amounts are stated to the nearest dollar.  
 Use Column I on contracts where variable retainage for items may apply.

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D		E WORK COMPLETED THIS PERIOD	F MATERIALS PRESENTLY STORED (NOT IN D OR E)	G TOTAL COMPLETED AND STORED TO DATE (D + E + F)	H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE RATE)
			FROM PREVIOUS APPLICATION (D + E)	WORK COMPLETED THIS PERIOD					
01	Site Prep	44,500.00	44,500.00				44,500.00	100.00	
02	Excavation	60,000.00	60,000.00				60,000.00	100.00	
03	Construct Soil Stockpile Area	12,000.00	10,000.00	2,000.00			12,000.00	100.00	
04	Hydroseed	11,000.00	9,532.60	1,467.40			11,000.00	100.00	
05	Excavate, Stockpile T&D Surface	15,000.00	15,000.00				15,000.00	100.00	
06	Off Site Removal of OHM	12,000.00	12,000.00				12,000.00	100.00	
07	Install Signs	8,922.10	8,922.10				8,922.10	100.00	
08	Additional Hydroseed								
<b>GRAND TOTALS</b>		163,422.10	159,954.70	3,467.40			163,422.10	100.00	

Users may obtain validation of this document by requesting a completed AIA Document D401 - Certification of Document's Authenticity from the Licensee