

**REVISED MODIFIED
RELEASE ABATEMENT MEASURE PLAN**

**Greenwood Street and Ruggles Street Buildings Demolition
Activity**

**101, 102, and 111 Greenwood Street, and 98, 108, and 118
Ruggles Street
New Bedford, Massachusetts
Release Tracking Number 4-15685**

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1.0 INTRODUCTION

On behalf of the City of New Bedford, Massachusetts (the “City”), TRC Environmental Corporation (TRC) has prepared this Revised Modified Release Abatement Measure (RAM) Plan in accordance with 310 CMR 40.0440 of the Massachusetts Contingency Plan (MCP). The applicable Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) is 4-15685, which is assigned to the Parker Street Waste Site (PSWS). Special Project status has been established for RTN 4-15685.

The purpose of this Revised Modified RAM Plan is to outline the changes in the approach for anticipated construction activities (demolition of dwellings at six properties) to be undertaken by the City at the 101, 102, and 111 Greenwood Street, and 98, 108, and 118 Ruggles Street (hereinafter “Acquired Residential Properties”) portion of the Site located on the eastern end of Greenwood and Ruggles Streets near or at the intersection of Hathaway Boulevard in New Bedford, Massachusetts documented in the Modified RAM Plan submitted to the MassDEP on September 17, 2009. The Modified RAM Plan addressed the following changes and served as a stand-alone replacement for the original September 9, 2009 RAM Plan:

- On-site crushing of concrete foundations materials and reuse of material as fill within basement space, instead of off-site disposal of same, consistent with MassDEP policy and related regulatory interpretations;
- Acknowledgement of the potential presence of soil potentially classified as PCB Remediation Waste under United States Environmental Protection Agency (EPA) regulation (specifically, 40 CFR Part 761.3) on three of the parcels slated for demolition (specifically, 118 Ruggles Street, 101 Greenwood Street, and 102 Greenwood Street);
- Sampling and analysis to evaluate if the portions of the concrete foundation in contact with soil and subject to demolition and subsequent management have been impacted by contact with any soil potentially containing PCB soil at 118 Ruggles Street, 101 Greenwood Street, and 102 Greenwood Street that may constitute a PCB Remediation Waste leading to regulation of foundation materials at those parcels as a PCB Remediation Waste;
- Clarification regarding dust monitoring;
- Clarification regarding decontamination of certain pieces of equipment or items that come into direct contact with soil or concrete determined to be actual or potential PCB Remediation Waste; and
- Inclusion of an updated project narrative prepared by the City.

This Revised Modified RAM Plan incorporates the following revisions and serves as a stand-alone replacement for the September 17, 2009 Modified RAM Plan:

- Summary of analytical results associated with sampling of the concrete foundations at the six Acquired Residential Properties, as well as sub-grade foam insulation associated with the foundation at the 118 Ruggles Street Property, that are subject to demolition and in contact with soil; and

- Summary of demolition activities to be undertaken at each of the six Acquired Residential Properties, emphasizing those activities that are universal and those that are unique to individual properties;
- Approaches for the management of the concrete foundation and sub-grade foam insulation material in contact with soil and subject to demolition. This includes those that have been impacted by contact with soil containing PCB at 102 Greenwood Street and 118 Ruggles Street;
- Clarification regarding decontamination of certain pieces of equipment or items that come into direct contact with soil, concrete or foam insulation determined to be actual or potential PCB Remediation Waste; and
- Inclusion of an updated project narrative prepared by the City.

Many of the activities outlined in the original RAM Plan submitted on September 9, 2009 and Modified RAM Plan submitted on September 17, 2009 remain unchanged, such as the installation of a perimeter black, metal, chain link security fence (already completed in September 2009 as part of site preparation and the later installation of a gate), excavation and immediate replacement of soils to allow for the disconnection of underground dwelling utilities, incidental temporary soil displacement to facilitate removal of concrete foundations and footings, demolition of the dwelling structures and disposal of the dwelling debris (aside from the foundation materials). This Revised Modified RAM Plan focuses primarily on the changes in technical or regulatory approach associated with the newly collected foundation material samples, in addition to providing more specific details about the proposed demolition activities. The principal changes to the demolition approach involve the removal and off-site disposal of the concrete foundation at the 102 Greenwood Street Property, removal and off-site disposal of the sub-grade foam insulation material present at the 118 Ruggles Street Property (assuming it can be readily removed from the foundation, if not the foam and concrete will be disposed of) and clarification of MassDEP policy requirements during crushing and reusing of concrete foundations (i.e., the “ABC Policy”) to a location at or below grade, breaking the basement slabs to enable drainage, backfilling of the basement space with crushed concrete foundation materials and suitable off-site material, and establishment of grass cover.

Consistent with the original (September 9, 2009) RAM Plan and the Modified RAM Plan (September 17, 2009), this Revised Modified RAM Plan does not involve the removal of soil from the Acquired Residential Properties at this time. Nevertheless, the City views the proposed building demolition activities as an interim step toward the implementation of a remedy for the subject parcels, currently in the planning stage. Soil removal is subject to regulatory approvals for such actions. This Revised Modified RAM Plan has been prepared to guide soil management activities associated with the aforementioned construction/demolition activities.

Prior to initiating the aforementioned activities, the City has performed abatement work not covered under this plan to remove hazardous materials identified within the structures including asbestos containing materials, miscellaneous containers of fluids, mercury thermostats, and other household items or items associated with the materials of construction.

1.1 Work Summary

Work to be performed under this RAM includes:

- Installation of a black, metal, chain link security fence on the perimeter of the parcels (completed in September 2009 as part of site preparation activity), to remain in place through the completion of activities described in the Revised Modified RAM Plan and until such time that a complete remedy is implemented;
- Removal of trees and shrubs only as needed to facilitate site access (to the degree feasible trees and shrubs will be left in place to help maintain the privacy of the abutting properties);
- Excavation and immediate replacement of soil during the disconnection of site underground utilities and concrete foundation and footing removal;
- Demolition of dwelling structures and off-site disposal of dwelling debris (aside from the concrete foundation materials) at each of the Acquired Residential Properties;
- Removal, segregation and off-site disposal of sub-grade foam insulation material at the 118 Ruggles Street Property (or disposal of the foam and concrete where the foam cannot be readily separated from the foundation);
- Demolition and subsequent on-site management of the concrete foundations to a location at or below grade at each of the Acquired Residential Properties (except the 102 Greenwood Street parcel where the entire concrete foundation is to be removed for off-site disposal);
- Breaking up the basement slab to facilitate post-demolition drainage at each of the Acquired Residential Properties (except the 102 Greenwood Street parcel where the entire concrete foundation is to be sent for off-site disposal);
- Demolition and off-site disposal of concrete foundation and basement slab material from the 102 Greenwood Street Property;
- Backfilling of basement space/covering of basement slab with crushed concrete foundation materials deemed suitable for on-site recycling and with documented contaminant-free fill material analyzed in advance for the presence of regulated contaminants (or contaminant-free fill material only in the case of 102 Greenwood Street);
- Removal of an above-ground swimming pool at one residence and other potential miscellaneous aboveground structures such as sheds (incidental soil disturbance may occur during this work, but will not entail excavation); and
- Minimal temporary soil stockpiling and stockpile management during activities that require excavation of soil (such as utility disconnection activities and incidental soil disturbance during concrete foundation and footing removal).

The sections of the September 17, 2009 Modified RAM Plan changed as by this Revised Modified RAM Plan are indicated below as “revised”. Sections unaffected by this modification are indicated as “unchanged”.

- Section 2 - Party assuming responsibility for the RAM (unchanged);

- Section 3 - Release description, site conditions and surrounding receptors (revised);
- Section 4 - Objective, plan and implementation schedule of the RAM (revised);
- Section 5 - Information pertaining to remediation waste management (revised);
- Section 6 - Environmental monitoring (revised);
- Section 7 - Federal, State, and Local permits (revised);
- Section 8 - Seal and signature of the Licensed Site Professional (revised);
- Section 9 - Certification of financial resources (unchanged);
- Section 10 - Relevant information (revised); and
- Section 11 - References (unchanged).

Supporting appendices from the September 17, 2009 Modified RAM Plan that are unchanged by this Revised Modified RAM include soil boring logs (Appendix A), copy of the PCB Remediation Notification letter submitted to EPA (Appendix B), excerpts from 40 CFR Part 761 (Appendix H) and MassDEP RAM Plan fee documentation (Appendix J). This Revised Modified RAM Plan also includes the following appendices: a copy of the Addendum to the PCB Remediation Notification letter submitted to EPA (Appendix C), a copy of the Foundation Sampling Results Memorandum submitted to EPA (Appendix D), updated City of New Bedford demolition plan summary (Appendix E), the Soil Management Plan (Appendix F), a copy of the MassDEP On-Site Rubble Crushing Notification Form (Appendix G), a copy of the Demolition Management and Decontamination Provision Memorandum submitted to EPA (Appendix I), and municipal notification letters (Appendix K).

1.2 Regulatory Status

1.2.1 Release Reporting

The RTN that affects the proposed demolition activities at the Acquired Residential Properties portion of the Site is RTN 4-15685. MCP RTN 4-15685 is associated with impacted fill associated with the Parker Street Waste Site. Special Project status has been established for RTN 4-15685.

No data tables or figures from the Modified (September 17, 2009) RAM Plan are affected by the changes associated with this Revised Modified RAM Plan, however supplemental figures and tables have been added to this Revised Modified RAM Plan.

2.0 PARTY ASSUMING RESPONSIBILITY FOR THE RAM

The party undertaking this RAM is:

City of New Bedford
133 William Street
New Bedford, MA 02740
Contact: Mr. Scott Alfonse
(508) 979-1487

3.0 RELEASE DESCRIPTION, SITE CONDITIONS & SURROUNDING RECEPTORS

3.1 Site Description

The Acquired Residential Properties portion of the Site (the “Site”), is located on the eastern end of Greenwood and Ruggles Streets near or at the intersection of Hathaway Boulevard in New Bedford, Massachusetts (Figure 1). The Site is bordered to the north by a vacant lot, to the east by a New Bedford High School (NBHS) parking lot, to the south by a church and residential properties, and to the west by residential properties.

The Site currently consists of unoccupied former single family dwellings. The Site is relatively level with a gentle slope up to the west on some lots. Historically the Site consisted of open space, which was variously filled sometime prior to development as housing. A Site location map is provided as Figure 1.

3.2 Surrounding Receptors

The Site lies within 500 feet of NBHS, residential dwellings, a church, the Keith Middle School (KMS), the Varsity Baseball Diamond portion of Dr. Paul F. Walsh Memorial Field (Walsh Field), and the construction site for athletic fields at the location of the former Keith Junior High School (KJHS)/New Andrea McCoy Field.

Groundwater categories at the Site include actual or potential GW-2, depending upon proximity to occupied structures, and GW-3, which applies to all groundwater throughout the Commonwealth. Groundwater is encountered at approximately 6 to 8 feet below ground surface based on recent groundwater monitoring well gauging at the adjacent NBHS campus by TRC and deeper in other PSWS locations. However, groundwater impacts from chemical compounds associated with the Site are not expected based on the laboratory results of groundwater samples taken from groundwater monitoring wells located at the NBHS portion of the site in August and September 2008, April 2009, January, February and April 2010, and routine groundwater monitoring at the KMS.

Based on review of on-line MassDEP Priority Resource Map data available from Massachusetts Geographic Information System (MassGIS), the Site is not located within a Current or Potential Drinking Water Source Area (MassGIS, 2008).

The Site is not located in a wetland resource area. No other documented sensitive ecological receptor areas (e.g., Areas of Critical Environmental Concern [ACECs]) are known to be located at or near the site. No municipal or residential wells are known to be in the area.

3.3 Release Description

As described previously, MassDEP tracks the Site under RTN 4-15685 that is associated with historical fill related to the PSWS.

3.3.1 Acquired Residential Properties Investigation History

In December 2005 through June 2006, The Beta Group, Incorporated (BETA) of Norwood, Massachusetts conducted subsurface investigations at the Acquired Residential Properties portion of the Site to evaluate the presence of soil impacts. Soil samples collected by BETA were analyzed for polychlorinated biphenyls (PCBs), Resource Conservation and Recovery Act (RCRA) 8 metals, polyaromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and Total Petroleum Hydrocarbons (TPH). Several of the samples indicated individual detections of compounds that exceeded their applicable MCP Method 1 S-1 Soil Standards. A summary of the data collected by BETA from the residential area was submitted in the following BETA reports:

- *Summary of Analytical Data, Volume I of II, Properties Located on: Greenwood Street, Ruggles Street, Durfee Street, New Bedford, Massachusetts*, dated March 15, 2006;
- *Summary of Analytical Data, Volume II of II, Properties Located on: Greenwood Street, Ruggles Street, Durfee Street, New Bedford, Massachusetts*, dated March 15, 2006;
- *Summary of Analytical Data, 98 Ruggles Street, New Bedford, Massachusetts*, dated September 14, 2006; and
- *Summary of Analytical Data, 102 Greenwood Street, New Bedford, Massachusetts*, dated September 14, 2006

TRC conducted additional soil testing in June 2008 at 102 Greenwood Street. The objective of TRC's additional soil testing was to address data at 102 Greenwood Street. TRC's additional soil testing work was conducted with the concurrence of the City.

TRC's environmental investigation at 102 Greenwood Street consisted of direct push soil borings using a track-mounted drill rig or a dolly-mounted direct push machine to sample soil and to observe subsurface soil conditions. Soil borings completed in the basement and garage were completed using a hammer drill. Drilling services and equipment were provided by New England Geotech, LLC (New England Geotech) of Jamestown, Rhode Island. TRC contracted New England Geotech to perform drilling activities at the Site under TRC field supervision. The borings were advanced using Geoprobe® direct push methods. The samples were visually examined in the field for evidence of contamination and field screened using the MassDEP jar headspace methodology and a photoionization detector (PID). Samples were collected from each boring at various depths to delineate the extent of soil impacts. The investigative approach was intended to evaluate the presence or absence of fill, the vertical extent of fill, and the potential presence of compounds of concern in soil and fill material.

Borings conducted in the exterior of the 102 Greenwood Street Property were advanced and samples were collected until native overburden was encountered unless refusal was encountered first. Where native material was submitted for laboratory analysis, two samples of native material were typically collected in borings selected to characterize the native horizon. The lower native sample was retained for analysis contingent upon the results of the upper native horizon analysis in an attempt to delineate the vertical extent of soil impacts, if present. The contingent native material was not analyzed if the native material interval above it was found to

be below cleanup criteria based on laboratory analysis or as directed by the TRC Licensed Site Professional (LSP).

Subslab borings conducted on 102 Greenwood Street by TRC relied on smaller tools and equipment and were conducted to evaluate the potential presence of subslab conditions. Soil samples collected were analyzed for PCBs, MCP metals, and PAHs. Several of the samples indicated individual detections of compounds that exceeded their applicable MCP Method 1 S-1 Soil Standards. A summary of the data was submitted in TRC's *Data Summary Report, 102 Greenwood Street, New Bedford, Massachusetts* dated July 2008.

3.3.2 Description of Soil Analytical Results by Property

3.3.2.1 101 Greenwood Street Soil Results

For soil samples taken from the 101 Greenwood Street Property, the laboratory results did not indicate the detection of any compounds at concentrations that exceed the MCP Method 1 soil cleanup standards with the exception of five PAHs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene], five metals (arsenic, barium, cadmium, chromium, and lead), PCBs and TPH. A summary of the 101 Greenwood Street soil analytical results for detected compounds only is included in Table 1, and an Analytical Results Summary Map is included in Figure 2.

101 Greenwood Street Soil PAH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of benzo(a)pyrene at sampling locations 101 Comp 2 (3.8 mg/kg) and 101 Comp 4 (4.2 mg/kg).

For soil samples taken in the greater than 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- benzo(a)anthracene at sampling locations 101 Comp 4 (9.3 mg/kg at 6 feet-native), and 101 Comp 5 (67 mg/kg at 6 feet-native).
- benzo(a)pyrene at sampling locations 101 Comp 4 (9.7 mg/kg at 6 feet-native), and 101 Comp 5 (4.1 mg/kg at 3-6 feet, and 69 mg/kg at 6 feet-native).
- benzo(b)fluoranthene at sampling locations 101 Comp 4 (9.9 mg/kg at 6 feet-native), and 101 Comp 5 (64 mg/kg at 6 feet-native).
- dibenz(a,h)anthracene at sampling locations 101 Comp 4 (1.2 mg/kg at 6 feet-native), and 101 Comp 5 (8.9 mg/kg at 6 feet-native).
- indeno(1,2,3-cd)pyrene at sampling location 101 Comp 5 (35 mg/kg at 6 feet-native).

101 Greenwood Street Soil Metals Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- cadmium at sampling locations 101 Comp 1 (2.23 mg/kg), 101 Comp 3 (2.05 mg/kg), 101 Comp 4 (2.66 mg/kg), and 101 Comp 5 (3.27 mg/kg).
- lead at sampling locations 101 Comp 1 (496 mg/kg), 101 Comp 2 (346 mg/kg), 101 Comp 3 (1,020 mg/kg), 101 Comp 4 (553 mg/kg), and 101 Comp 5 (575 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- arsenic at sampling location 101 Comp 2 (25 mg/kg at 3-6 feet).
- cadmium at sampling locations 101 Comp 1 (2.5 mg/kg at 3-6 feet, 24 mg/kg at 6 feet-native), 101 Comp 2 (15 mg/kg at 3-6 feet, 224 mg/kg at 6 feet-native), 101 Comp 3 (113 mg/kg at 3-6 feet, 40 mg/kg at 6 feet-native), 101 Comp 4 (7.47 mg/kg at 3-6 feet), and 101 Comp 5 (2.78 mg/kg at 3-6 feet, 5.43 mg/kg at 6 feet-native).
- chromium at sampling locations 101 Comp 1 (441 mg/kg at 6 feet-native), 101 Comp 3 (33 mg/kg at 3-6 feet), and 101 Comp 5 (31 mg/kg at 3-6 feet).
- lead at sampling locations 101 Comp 1 (1,240 mg/kg at 3-6 feet, 454 mg/kg at 6 feet-native), 101 Comp 2 (1,520 mg/kg at 3-6 feet, 2,070 mg/kg at 6 feet-native), 101 Comp 3 (6,780 mg/kg at 3-6 feet, 1,390 mg/kg at 6 feet-native), 101 Comp 4 (1,040 mg/kg at 3-6 feet), and 101 Comp 5 (1,150 mg/kg at 3-6 feet, 2,790 mg/kg at 6 feet-native).

101 Greenwood Street Soil PCB Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards with the exception of sampling locations D.5-2 (2.8 mg/kg), D.5-3 (5.78 mg/kg), D.5-4 (11.22 mg/kg), E.5-2 (29.6 mg/kg), E.5-3(3.44 mg/kg), E.5-4 (6.01 mg/kg), E.5-5 (6.87 mg/kg), E1 (2.67 mg/kg), F2 (5.75 mg/kg), G2 (10.4 mg/kg), G5 (3.59 mg/kg), H4 (4.56 mg/kg), H5 (3.09 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards with the exception of sampling locations D.5-3 (4.5 mg/kg at 3-6 feet, 6 mg/kg at 6-9 feet), D.5-5 (4.2 mg/kg at 3-6 feet), E.5-5 (2.40 mg/kg at 6-8.5 feet), F2 (5.12

mg/kg at 6-8 feet), G2 (23.3 mg/kg at 3-6 feet), H2 (976 mg/kg at 3-6 feet, 3.7 mg/kg at 6-8.5 feet), H3 (2.39 mg/kg at 3-6 feet, 15.4 mg/kg at 6-9 feet), and H4 (3.03 mg/kg at 3-6 feet).

101 Greenwood Street Soil TPH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of TPH at concentrations exceeding the MCP Method 1 cleanup standards.

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of TPH at concentrations exceeding the MCP Method 1 cleanup standards with the exception of sampling location 101 Comp 5 (Diesel Range Organics at 3,610 mg/kg at 6 feet-native).

101 Greenwood Street Soil Dibenzofuran Results

For the two soil samples that were analyzed for dibenzofuran, all of the analytical results were below laboratory reporting limits. The depth the samples were taken at was unavailable in BETA's report.

101 Greenwood Street Soil VOC Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of VOCs at concentrations exceeding the MCP Method 1 soil cleanup standards.

3.3.2.2 102 Greenwood Street Soil Results

For soil samples taken from the 102 Greenwood Street Property, the laboratory results did not indicate the detection of any compounds at concentrations that exceed the MCP Method 1 soil cleanup standards with the exception of PCBs, and five metals (arsenic, cadmium, chromium, lead, and nickel). A summary of the 102 Greenwood Street soil analytical results for detected compounds only is included in Table 2, and an Analytical Results Summary Map is included in Figure 3. A copy of TRC's boring logs is included in Appendix A.

102 Greenwood Street Soil PAH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards

102 Greenwood Street Soil Metals Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil

cleanup standards, with the following exception of lead at sampling location SB-194 (1,030 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- arsenic at subslab sampling location SB-187 (32.0 mg/kg at 6 feet-native) and exterior location SB-188 (22.8 mg/kg at 4.5 feet).
- cadmium at subslab sampling locations SB-185 (6.49 mg/kg at 6 feet-native) and SB-187 (2.44 mg/kg at 6 feet-native), and exterior location SB-194 (2.55 mg/kg at 4 feet).
- chromium at subslab sampling location SB-187 (41.9 mg/kg at 6 feet-native), and exterior location SB-190 (122 mg/kg at 4 feet).
- lead at subslab sampling locations SB-185 (673 mg/kg at 6 feet-native) and SB-187 (846 mg/kg at 6 feet-native), and exterior locations SB-188 (801 mg/kg at 4.5 feet), SB-190 (1,510 mg/kg at 4 feet), SB-194 (559 mg/kg at 4 feet), and SB-195 (982 mg/kg at 7.5 feet).
- nickel at subslab sampling locations SB-185 (24.9 mg/kg at 6 feet-native) and SB-187 (33.6 mg/kg at 6 feet-native), and exterior locations SB-188 (30.8 mg/kg at 4.5 feet), SB-190 (25.5 mg/kg at 4 feet), and SB-194 (33.8 mg/kg at 4 feet).

102 Greenwood Street Soil PCB Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards with the exception of subslab sampling location SB-185 (68.3 mg/kg), SB-194 (3.02 mg/kg) and exterior location SB-195 (2.45 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards with the exception of sampling locations K.1-3 (5.35 mg/kg at 7-8.5 feet), M.1-3 (12.4 mg/kg at 7.5-8 feet), subslab locations SB-185 (45.7 mg/kg at 4 feet, 10.7 mg/kg at 6 feet-native) and SB-187 (5.88 mg/kg at 6 feet-native), and exterior locations SB-194 (26.6 mg/kg at 4 feet) and SB-195 (4.34 mg/kg at 7.5 feet).

102 Greenwood Street Soil Dibenzofuran Results

For the soil sample (102 Comp 1) taken in the 0 to 3 foot below ground surface horizon and the greater than 3 feet below ground surface horizon, the analytical results were below the laboratory reporting limit.

3.3.2.3 111 Greenwood Street Soil Results

For soil samples taken from the 111 Greenwood Street Property, the laboratory results did not indicate the detection of any compounds at concentrations that exceed the MCP Method 1 soil cleanup standards with the exception two PAHs [benzo(a)pyrene, and dibenz(a,h)anthracene], and five metals (arsenic, barium, cadmium, chromium, and lead). A summary of the 111 Greenwood Street soil analytical results for detected compounds only is included in Table 3, and an Analytical Results Summary Map is included in Figure 4.

111 Greenwood Street Soil PAH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards.

For soil samples taken in the greater than 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- benzo(a)pyrene at sampling location 111 Comp 4 (5.4 mg/kg at 6 feet-native).
- dibenz(a,h)anthracene at sampling location 111 Comp 4 (0.75 mg/kg at 6 feet-native).

111 Greenwood Street Soil Metals Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- barium at sampling location 111 Comp 3 (1,070 mg/kg).
- chromium at sampling location 111 Comp 3 (37 mg/kg).
- lead at sampling locations 111 Comp 1 (314 mg/kg), 111 Comp 2 (822 mg/kg), and 111 Greenwood Front Comp (368 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- arsenic at sampling location 111 Comp 1 (25 mg/kg at 3-6 feet).
- cadmium at sampling locations 111 Comp 1 (2.89 mg/kg at 3-6 feet), 111 Comp 2 (6.06 mg/kg at 3-6 feet), 111 Comp 4 (2.47 mg/kg at 6 feet-native), and 111 Comp 6 (3.9 mg/kg at 3-6 feet).

- chromium at sampling location 111 Comp 2 (31 mg/kg at 3-6 feet).
- lead at sampling locations 111 Comp 1 (670 mg/kg at 3-6 feet, 342 mg/kg at 6 feet-native), 111 Comp 2 (849 mg/kg at 3-6 feet), 111 Comp 3 (1,510 mg/kg at 3-6 feet), 111 Comp 4 (320 mg/kg at 6 feet-native), 111 Comp 5 (377 mg/kg at 3-6 feet, 455 mg/kg at 6 feet-native), and 111 Comp 6 (781 mg/kg at 3-6 feet).

111 Greenwood Street Soil PCB Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, and in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards.

111 Greenwood Street Soil TPH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of TPH at concentrations exceeding the MCP Method 1 cleanup standards.

111 Greenwood Street Soil Dibenzofuran Results

For the two soil samples that were analyzed for dibenzofuran, all of the analytical results were below laboratory reporting limits. The depth the samples were taken at was unavailable in BETA's report.

111 Greenwood Street Soil VOC Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of VOCs at concentrations exceeding the MCP Method 1 soil cleanup standards.

3.3.2.4 98 Ruggles Street Soil Results

For soil samples taken from the 98 Ruggles Street Property, the laboratory results did not indicate the detection of any compounds at concentrations that exceed the MCP Method 1 soil cleanup standards with the exception of three PAHs [benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene], PCBs, and four metals (arsenic, cadmium, chromium, and lead). A summary of the 98 Ruggles Street soil analytical results for detected compounds only is included in Table 4, and an Analytical Results Summary Map is included in Figure 5.

98 Ruggles Street Soil PAH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards.

For soil samples taken in the greater than 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- benzo(a)pyrene at sampling locations 98 Comp 1 (5.3 mg/kg at 3-6 feet, 3.2 at 6-native), and 98 Comp 3 (6.1 mg/kg at 3-6 feet).
- benzo(b)fluoranthene at sampling locations 98 Comp 1 (7.1 mg/kg at 3-6 feet), and 98 Comp 3 (9 mg/kg at 3-6 feet).
- dibenz(a,h)anthracene at sampling location 98 Comp 3 (0.88 mg/kg at 3-6 feet).

98 Ruggles Street Soil Metals Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- arsenic at sampling location 98 Comp 2 (34 mg/kg).
- cadmium at sampling location 98 Comp 2 (5.24 mg/kg).
- chromium at sampling location 98 Comp 2 (60 mg/kg).
- lead at sampling locations 98 Comp 1 (404 mg/kg), and 98 Comp 2 (646 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- arsenic at sampling location 98 Comp 1 (22 mg/kg at 3-6 feet, 23 mg/kg at 6 feet-native).
- cadmium at sampling locations 98 Comp 1 (6.67 mg/kg at 3-6 feet, 4.47 mg/kg at 6 feet-native), 98 Comp 2 (2.95 mg/kg at 3-6 feet, 5.13 mg/kg at 6 feet-native), and 98 Comp 3 (3.52 mg/kg at 3-6 feet).
- chromium at sampling location 98 Comp 1 (31 mg/kg at 3-6 feet, 54 mg/kg at 6 feet-native).
- lead at sampling locations 98 Comp 1 (566 mg/kg at 3-6 feet, 2,460 mg/kg at 6 feet-native), 98 Comp 2 (857 mg/kg at 3-6 feet, 1,190 mg/kg at 6 feet-native), and 98 Comp 3 (1,990 mg/kg at 3-6 feet).

98 Ruggles Street Soil PCB Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling locations A4 (4.28 mg/kg), B5.75 (3.03 mg/kg), and D5.25 (4.07 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling locations A3 (13.3 mg/kg at 7-10 feet), K1.3 (5.15 mg/kg at 7.5-8 feet), and M1.3 (12.4 mg/kg at 7.5-8 feet).

98 Ruggles Street Soil Dibenzofuran Results

For soil samples taken in the 0-3 foot below ground surface horizon and the greater than 3 feet horizon, all of the analytical results were below the MCP Method 1 soil cleanup standards.

3.3.2.5 108 Ruggles Street Soil Results

For soil samples taken from the 108 Ruggles Street Property, the laboratory results did not indicate the detection of any compounds at concentrations that exceed the MCP Method 1 soil cleanup standards with the exception of four PAHs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene], PCBs, and five metals (arsenic, cadmium, chromium, lead, and mercury). A summary of the 108 Ruggles Street soil analytical results for detected compounds only is included in Table 5, and an Analytical Results Summary Map is included in Figure 6.

108 Ruggles Street Soil PAH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling location 108 Comp 2 [benzo(a)anthracene at 7.3 mg/kg, and benzo(a)pyrene at 3.7 mg/kg].

For soil samples taken in the greater than 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- benzo(a)anthracene at sampling locations 108 Comp 1 (12 mg/kg at 3-6 feet), and 108 Comp 5 (7.6 mg/kg at 3-6 feet).
- benzo(a)pyrene at sampling location 108 Comp 1 (6.9 mg/kg at 3-6 feet), and 108 Comp 5 (7 mg/kg at 3-6 feet).
- benzo(b)fluoranthene at sampling locations 108 Comp 1 (9.4 mg/kg at 3-6 feet), and 108 Comp 5 (9.4 mg/kg at 3-6 feet).

- dibenz(a,h)anthracene at sampling location 108 Comp 1 (0.9 mg/kg at 3-6 feet).

108 Ruggles Street Soil Metals Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of lead at sampling locations 108 Comp 1 (316 mg/kg), 108 Comp 2 (395 mg/kg), 108 Comp 3 (415 mg/kg), and 108 Comp 5 (569 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- arsenic at sampling locations 108 Comp 2 (57.8 mg/kg at 6 feet-native), 108 Comp 4 (22 mg/kg at 6 feet-native), and 108 Comp 5 (31 mg/kg at 3-6 feet).
- cadmium at sampling locations 108 Comp 1 (6.28 mg/kg at 6 feet-native), 108 Comp 2 (8.95 mg/kg at 6 feet-native), 108 Comp 3 (2.9 mg/kg at 6 feet-native), 108 Comp 4 (3.77 mg/kg at 6 feet to native), and 108 Comp 5 (6.6 mg/kg at 3-6 feet, 4.25 mg/kg at 6 feet-native).
- chromium at sampling location 108 Comp 5 (181 mg/kg at 3-6 feet, 62 mg/kg at 6 feet-native).
- lead at sampling locations 108 Comp 1 (408 mg/kg at 6 feet-native), 108 Comp 2 (424 mg/kg at 3-6 feet, 3,690 mg/kg at 6 feet-native), 108 Comp 3 (745 mg/kg at 3-6 feet, 439 mg/kg at 6 feet-native), 108 Comp 4 (309 mg/kg at 3-6 feet, 606 mg/kg at 6 feet-native), and 108 Comp 5 (1,480 mg/kg at 3-6 feet, 1,960 mg/kg at 6 feet-native).
- mercury at sampling location 108 Comp 2 (109 mg/kg at 3-6 feet).

108 Ruggles Street Soil PCB Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling locations B10.75 (2.668 mg/kg), D.75-7 (2.25 mg/kg), D.75-8 (5.24 mg/kg), D6.25 (2.77 mg/kg), and D8 (2.23 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling location A9 (2.85 mg/kg at 3-6 feet).

108 Ruggles Street Soil TPH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of TPH at concentrations exceeding the MCP Method 1 cleanup standards.

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of TPH at concentrations exceeding the MCP Method 1 cleanup standards, with the exception of sampling locations 108 Comp 2 (diesel range organics 1,040 mg/kg at 6 feet-native), and 108 Comp 5 (diesel range organics 2,690 mg/kg at 3-6 feet and 1,140 mg/kg at 6 feet-native).

108 Ruggles Street Soil Dibenzofuran Results

For soil samples taken in the 0-3 foot below ground surface horizon and the greater than 3 feet horizon, all of the analytical results were below the MCP Method 1 soil cleanup standards.

108 Ruggles Street Soil VOC Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of VOCs at concentrations exceeding the MCP Method 1 soil cleanup standards.

3.3.2.6 118 Ruggles Street Soil Results

For soil samples taken from the 118 Ruggles Street Property, the laboratory results did not indicate the detection of any compounds at concentrations that exceed the MCP Method 1 soil cleanup standards with the exception of four PAHs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene], PCBs, and three metals (cadmium, chromium, and lead). A summary of the 118 Ruggles Street soil analytical results for detected compounds only is included in Table 6, and an Analytical Results Summary Map is included in Figure 7.

118 Ruggles Street Soil PAH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling location 118 Comp 1 [benzo(a)anthracene at 8.8 mg/kg, benzo(a)pyrene at 7.1 mg/kg, benzo(b)fluoranthene at 8.5 mg/kg, and dibenz(a,h)anthracene at 1 mg/kg].

For soil samples taken in the greater than 3 foot below ground surface horizon, the analytical results did not indicate the detection of any PAHs at concentrations exceeding the

MCP Method 1 soil cleanup standards, with the following exceptions:

- benzo(a)anthracene at sampling locations 118 Comp 1 (10 mg/kg at 3-6 feet), and 118 Ruggles Front Comp (20.6 mg/kg at unknown depth).
- benzo(a)pyrene at sampling location 118 Comp 1 (8.7 mg/kg at 3-6 feet), 118 Comp 2 (6 mg/kg at 3-6 feet), and 118 Ruggles Front Comp (14 mg/kg at unknown depth), and 118 Ruggles Rear Comp (2.8 mg/kg at unknown depth).
- benzo(b)fluoranthene at sampling location 118 Comp 1 (11 mg/kg at 3-6 feet).
- dibenz(a,h)anthracene at sampling locations 118 Comp 1 (1.3 mg/kg at 3-6 feet), and 118 Ruggles Front Comp (2.1 mg/kg at unknown depth).

118 Ruggles Street Soil Metals Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exception:

- chromium at sampling location 118 Comp 2 (36 mg/kg).
- lead at sampling locations 118 Comp 2 (446 mg/kg), and 118 Ruggles Front Comp (388 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of any metals at concentrations exceeding the MCP Method 1 soil cleanup standards, with the following exceptions:

- cadmium at sampling location 118 Comp 2 (4.67 mg/kg at 3-6 feet).
- chromium at sampling location 118 Comp 2 (33 mg/kg at 3-6 feet).
- lead at sampling locations 118 Comp 2 (560 mg/kg at 3-6 feet), and 118 Ruggles Front Comp (307 mg/kg at unknown depth).

118 Ruggles Street Soil PCB Results

For soil samples taken in the 0 to 3 foot below ground surface horizon, , the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method 1 soil cleanup standards, with the exception of sampling locations A12 (3.84 mg/kg), A13 (2.13 mg/kg) and A14 (2.4 mg/kg).

For soil samples taken in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of total PCBs at concentrations exceeding the MCP Method

1 soil cleanup standards, with the exception of sampling location A15 (59.1 mg/kg at 2.75-4 feet).

118 Ruggles Street Soil TPH Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and in the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of TPH at concentrations exceeding the MCP Method 1 cleanup standards.

118 Ruggles Street Soil Dibenzofuran Results

For soil samples taken in the 0-3 foot below ground surface horizon and the greater than 3 feet horizon, all of the analytical results were below the MCP Method 1 soil cleanup standards.

118 Ruggles Street Soil VOC Results

For soil samples taken in the 0 to 3 foot below ground surface horizon and the greater than 3 feet below ground surface horizon, the analytical results did not indicate the detection of VOCs at concentrations exceeding the MCP Method 1 soil cleanup standards.

3.3.3 Description of Concrete Foundation & Foam Insulation Sampling

TRC conducted sampling of concrete from the sub-grade foundations of the six Acquired Residential Properties (and exterior foundation foam insulation at one residence) between March 8, 2010 and April 1, 2010 pursuant to the City's September 16, 2009 notification letter to the EPA and the City's formal addendum to the notification letter submitted to the EPA on February 17, 2010. A copy of the September 16, 2009 notification letter is included in Appendix B. A copy of the addendum letter is included in Appendix C. No demolition or soil excavation activities were implemented under this scope of work.

The collection of samples from the two properties with deeper foundations/basements (111 Greenwood Street and 118 Ruggles Street) proceeded by horizontally coring the foundation concrete from inside the basement of the residence. The concrete foundations at each of the properties were sampled at regular intervals (at a rate of approximately one sample per ten linear feet of interior basement foundation wall) around the entire perimeter of each dwelling (see Figure 8). A concrete coring machine (e.g., Hilti™ drill equipped with 2 or 3 inch diamond bit) was used to horizontally core the foundation from the interior basement wall to the exterior foundation face. The outer 0.5 inches of the concrete core (i.e., exterior foundation surface in contact with soil, including any waterproof coating) was removed for PCB Aroclor analysis (SW-846 Method 8082) by Northeast Analytical Inc. (NEA) of Schenectady, New York.

Following removal of the concrete core, a hammer drill was used to horizontally advance a 2 inch diameter large bore sampling device for the collection of discrete soil samples. The approximately 2 to 3 inches of soil material formerly in contact with the exterior foundation surface was collected and held by NEA for PCB Aroclor analysis (SW-846 Method 8082) contingent upon the analytical results of the adjacent concrete sample. Analysis of soil samples

was only authorized if total concentrations of PCB Aroclors detected in the concrete sample exceed 1 mg/kg total PCBs. The soil material was geologically logged by a qualified person familiar with the site.

The concrete foundations at each of the four subject properties with shallow foundation systems (101 Greenwood Street, 102 Greenwood Street, 98 Ruggles Street and 108 Ruggles Street) were also sampled at regular intervals (see Figure 8). One sample was collected per ten linear feet of exterior foundation wall around the entire perimeter of each dwelling, including permanently attached structures with footings likely to extend below ground surface (e.g., stairs, masonry porches, decks, etc.). In addition, the detached concrete shed located in the rear of the 111 Greenwood Street Property was sampled. Samples of soil material immediately adjacent to each concrete sample location were concurrently collected and held for potential analysis.

Sampling was focused on those portions of the foundation that were in direct contact with subsurface soil. At each pre-marked sample location, the existing soil material was temporarily pulled back to expose the surface of the foundation to a depth of approximately two feet below ground surface. A decontaminated shovel was used to pull the soil material away from the foundation wall only to the degree necessary to allow for concrete sample collection. The foundation wall was inspected for the presence or absence of any surficial foam insulation. If present, as in the case of the 118 Ruggles Street Property, the foam insulation material was sampled for PCB Aroclor analysis (SW-846 Method 8082) by NEA.

Samples of the soil material pulled back from the foundation were collected from 0 to 1 foot and 1 to 2 feet below ground surface to be held by NEA for PCB Aroclor analysis (SW-846 Method 8082) contingent upon the analytical results of the adjacent concrete samples. Analysis of soil samples was only authorized if total concentrations of PCB Aroclors detected in the concrete sample exceed 1 mg/kg total PCBs. The soil material was geologically logged by a TRC field scientist or engineer familiar with the site.

Following soil sampling (and sub-grade foam insulation sampling at 118 Ruggles Street), the exposed concrete foundation surface was dry brushed to remove any remaining soil material. The concrete foundation was sampled from 0 to 0.5-inches below the concrete surface, regardless of the presence of a weatherproofing coating (or foam insulation in the case of 118 Ruggles Street), using a hammer drill or equivalent in accordance with the EPA SOP for Sampling Porous Surface for PCBs (Revision 3, July 22, 2008). Samples were collected from 0 to 1 foot and 1 to 2 feet below ground surface along the foundation wall. Each concrete sample was submitted to NEA for PCB Aroclor analysis (SW-846 Method 8082).

3.3.4 Description of Concrete Analytical Results by Property

A summary of the concrete foundation and foam insulation analytical data was submitted in TRC's *Residential Foundation Sampling Results Memorandum* to the EPA dated May 18, 2010. A copy of the memorandum is included herein as Appendix D. A summary of the analytical results is also provided in the following sections. Foundation sample locations for each of the Acquired Residential Properties are depicted in Figure 8.

3.3.4.1 101 Greenwood Street Concrete Results

For the 38 concrete samples (including four field duplicate samples) collected from the 101 Greenwood Street Property, no PCBs were detected in excess of 1 mg/kg. Concentrations of PCBs ranged from non-detect to 0.723 mg/kg [RD-21-C (0-1)]. No foam insulation was observed at the 101 Greenwood Street Property. A summary of the 101 Greenwood Street concrete analytical results is included in Table 7.

3.3.4.2 102 Greenwood Street Concrete Results

For the 35 sub-grade concrete samples collected from the 102 Greenwood Street Property, 27 sample results were non-detect or less than 1 mg/kg for PCB. Total PCB Aroclors at concentrations in excess of 1 mg/kg were detected in only eight concrete samples. The PCB detections in excess of 1 mg/kg ranged in concentration from 1.25 mg/kg [RD-100-C (1-2)] to 182 mg/kg [RD-97-C (1-2)]. As a follow-up, TRC conducted supplemental sampling of concrete in four locations approximately 0.5 feet above the soil grade in the vicinity of these detections and all the results above the soil grade were non-detect. No foam insulation was observed at the 102 Greenwood Street Property. A summary of the 102 Greenwood Street concrete analytical results is included in Table 8.

3.3.4.3 111 Greenwood Street Concrete Results

For the 25 concrete samples collected from the 111 Greenwood Street Property, including five samples collected from the foundation for the shed located in the rear of the property, all results were non-detect. No foam insulation was observed at the 111 Greenwood Street Property. A summary of the 111 Greenwood Street concrete analytical results is included in Table 9.

3.3.4.4 98 Ruggles Street Concrete Results

For the 32 concrete samples collected from the 98 Ruggles Street Property, no PCBs were detected in excess of 1 mg/kg. Concentrations of PCBs ranged from non-detect to 0.404 mg/kg [RD-78-C (1-2)]. No foam insulation was observed at the 98 Ruggles Street Property. A summary of the 98 Ruggles Street concrete analytical results is included in Table 10.

3.3.4.5 108 Ruggles Street Concrete Results

For the 34 concrete samples (including two field duplicates) collected from the 108 Ruggles Street Property, no PCBs were detected in excess of 1 mg/kg. Two concrete samples [RD-65-C (1-2) and RD-68-C (0-1)] exhibited detectable concentrations of PCBs of 0.0722 mg/kg and 0.0642 mg/kg, respectively. No foam insulation was observed at the 108 Ruggles Street Property. A summary of the 108 Ruggles Street concrete analytical results is included in Table 11.

3.3.4.6 118 Ruggles Street Concrete, Foam Insulation & Soil Results

For the 19 concrete samples (including two field duplicates) collected from the 118 Ruggles Street Property, all but one sample was non-detect for PCBs. One concrete sample [RD-53-C (1-2)] exhibited a detectable concentrations of PCBs of 0.080 mg/kg. The field duplicate PCB concentration for this sample was 0.0861 mg/kg. A summary of the 118 Ruggles Street concrete analytical results is included in Table 12.

Foam insulation was encountered in association with the sub-grade foundation at the 118 Ruggles Street Property. A total of fourteen foam insulation samples were collected from the foundation. Concentrations of PCBs in the foam insulation ranged from non-detect to 2.88 mg/kg [RD-41-F (1)]. A total of four foam insulation samples exhibited concentrations of PCBs in excess of 1 mg/kg, ranging from 1.26 mg/kg to 2.88 mg/kg. A summary of the 118 Ruggles Street foam insulation analytical results is included in Table 12.

Due to the presence of total concentrations of PCBs in excess of 1 mg/kg in foam insulation samples, TRC authorized the analysis of soil samples collected in close proximity to foam insulation samples RD-40-F (1), RD-42-F (1) and RD-48-F (1). Total PCBs detected in the soil ranged from 1.00 mg/kg to 5.89 mg/kg. A summary of the 118 Ruggles Street soil analytical results is included in Table 12.

4.0 OBJECTIVE, PLAN & IMPLEMENTATION SCHEDULE

4.1 Objective

Work to be performed under this RAM includes:

- Installation of a black, metal, chain link security fence on the perimeter of the parcels (completed in September 2009 as part of site preparation activity), to remain in place through the completion of activities described in the Revised Modified RAM Plan and until such time that a complete remedy is implemented;
- Removal of trees and shrubs only as needed to facilitate site access (to the degree feasible trees and shrubs will be left in place to help maintain the privacy of the abutting properties);
- Excavation and immediate replacement of soil during the disconnection of site underground utilities and concrete foundation and footing removal;
- Demolition of dwelling structures and off-site disposal of dwelling debris (aside from the concrete foundation materials) at each of the Acquired Residential Properties;
- Removal, segregation and off-site disposal of sub-grade foam insulation material at the 118 Ruggles Street Property (or disposal of the foam and concrete where the foam cannot be readily separated from the foundation);
- Demolition and subsequent on-site management of the concrete foundations to a location at or below grade at each of the Acquired Residential Properties except the 102 Greenwood Street parcel where the entire concrete foundation is to be removed for off-site disposal;
- Breaking up of the basement slab to facilitate post-demolition drainage at each of the Acquired Residential Properties except the 102 Greenwood Street parcel;
- Demolition and off-site disposal of concrete foundation and basement slab material from the 102 Greenwood Street Property;
- Backfilling of basement space/covering of basement slab with crushed concrete foundation materials deemed suitable for on-site recycling and with documented contaminant-free fill material screened in advance for the presence of regulated contaminants (or contaminant-free fill material only in the case of 102 Greenwood Street);;
- Removal of an above-ground swimming pool at one residence and other potential miscellaneous aboveground structures such as sheds (incidental soil disturbance may occur during this work, but will not entail excavation); and
- Minimal temporary soil stockpiling and stockpile management during activities that require excavation of soil (such as utility disconnection activities and incidental soil disturbance during concrete foundation and footing removal).

The work is scheduled to begin as soon as possible following the concurrence of MassDEP and EPA, and is anticipated to be completed in approximately 5 weeks. This schedule is anticipated to include one week of preparatory activities (e.g., mowing of parcel lawns, staging of roll-off containers, placement of steel plates), one to two weeks for demolition, backfilling and

restoration of 102 Greenwood Street Property, and two weeks for demolition, backfilling and restoration of the 101 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street Properties. Note that perimeter black, metal, chain link security fence installation was completed as part of site preparation activities in early September 2009 following MassDEP approval. An updated summary of the City of New Bedford's Demolition Plan and Schedule is included in Appendix E.

4.2 Plan

The City's Department of Public Infrastructure (DPI) is working with the Department of Environmental Stewardship to demolish buildings at the Acquired Residential Properties on and located at 101, 102, and 111 Greenwood Street and 98, 108, and 118 Ruggles Street.

The City's objective is to demolish the buildings as soon as possible using DPI resources. The demolition consists of the dismantling and removal of the buildings only. No soil remediation or removal work is planned in conjunction with the demolition.

Work began in September 2009 to secure the area by installing a temporary chain link fence around the work area and by deploying hay bales to control runoff. The fence was installed utilizing a hydraulic driving machine to push the fence posts into the ground so that no soil excavation took place. In February 2010, two access gates were installed at the Acquired Residential Properties under the supervision of TRC personnel. The two gates are located at the driveways to the 101 and 102 Greenwood Street Properties, respectively. Once again, no soil excavation occurred during access gate installation.

Prior to initiation of demolition activities the City's pest control contractor will perform an additional round of extermination. Pest extermination was initiated in September 2009, however, due to the time that has elapsed since the 2009 extermination another round of extermination has been scheduled before undertaking the demolition.

Steel plates will be placed on the lawn areas accessed by heavy equipment. Roll-off containers will also be placed on the steel plates or driveways in order to minimize destruction of the lawn areas during construction/demolition activities. Consistent with the City's demolition plan (see Appendix E), shrubs and trees requiring removal will be cut to ground level and removed.

4.2.1 Disconnection of Utilities

4.2.1.1 Overhead Utilities

Overhead utilities to each property were disconnected at the main utility pole or cable, whichever was deemed most appropriate per the utility provider. Additionally, NSTAR Gas has confirmed that services have been stopped to the Acquired Residential Properties.

4.2.1.2 Underground Utilities

Underground utilities will be terminated by removal of the meter and cutoff of the utility at the dwelling or shut off at the gate valve, as needed.

Soil is to be excavated during site construction activities for the disconnection of site underground utilities. All sewer and water supplies to the residences will be shut off at the street main supply prior to disconnection at the dwelling foundation. Soil excavated along the dwelling foundations to a depth needed to expose the utility connection at the foundation will be temporarily placed on polyethylene sheeting (6-mil minimum) or similar adjacent to the excavation. The utility connection will then be cut and capped, such that the termination will remain below ground surface. The excavation will then be backfilled with the previously excavated material, returned in the approximate order removed.

TRC personnel will observe the excavation of the soil for visual and olfactory evidence of contamination during excavation. The soil will also be monitored with a PID. Soil will be screened for VOCs using the MassDEP jar headspace method. Additional air monitoring will be implemented during excavation activities as well.

All soil excavation activities will be conducted in accordance with a site specific Health & Safety Plan (HASP). Each organization performing work at the Site shall prepare a HASP for the activities undertaken by that organization.

4.2.2 Demolition of Dwelling Structures

Prior to the demolition of the dwelling structures the City performed abatement work to remove hazardous materials identified within the structures including asbestos containing materials, miscellaneous containers of fluids, mercury thermostats, and other household items or items associated with the materials of construction. TRC performed pre-demolition inspections of the properties and identified various quantities of building-related hazardous materials such as asbestos. The City retained Franklin Analytical of Marion, Massachusetts to perform the pre-demolition abatement of building-related hazardous materials in June 2009. Further pre-demolition abatement of building-related hazardous materials is scheduled to be performed by Triumvirate Environmental, Incorporated (TEI) of Somerville, Massachusetts in June 2010. Additionally, all utilities will be disconnected as described in Section 4.2.1 prior to demolition of the dwelling structures. The utility disconnections for natural gas services have already been conducted by NSTAR, which included the cutting and capping of gas services within Greenwood Street under a Utility Release Abatement Measure (URAM) filed separately by NSTAR.

The building will then be demolished, and the demolition materials (other than concrete foundation, sub-grade foam insulation and basement slab materials) will be placed directly into roll off containers. The demolition waste will then be disposed of at an approved solid waste/construction waste disposal facility. The demolition will be performed by the City's DPI using trained personnel with prior building demolition experience.

4.2.3 Concrete Foundation and Slab On-Site Crushing and Backfilling

Upon completion of the work described in Sections 4.2.1 and 4.2.2, the concrete foundations will be demolished and managed as outlined in the following section. Incidental soil disturbance and as needed temporary excavation will occur along the foundation walls to facilitate removal of the concrete foundation and associated footings. All materials will be managed as described in the *Soil Management Plan* in Appendix F.

4.2.3.1 101 and 111 Greenwood Street & 98 and 108 Ruggles Street Properties

The concrete foundation walls and basement slab will be demolished to a location at or below grade pursuant to the MassDEP Site Assignment Regulations for Solid Waste Facilities (310 CMR 16.00), specifically the asphalt pavement, brick and concrete recycling operations detailed in 310 CMR 16.05(3)(e). The City filed an On-Site Rubble Crushing Notification Form to the MassDEP and City of New Bedford Board of Health on May 24, 2010 in accordance with 310 CMR 16.05(3)(e)6. A copy of the notification form is presented in Appendix G.

The foundation walls will be broken up to a 6-inch minus size using a suitable excavator attachment (“nibbler”), or other suitable machine/equipment, and be used as backfill in the remaining basement void or to cover the similarly broken-up slab and nearby soil. The basement slabs will be broken up, again to a 6-inch minus size, to enable drainage of the foundation. Additionally, if any rebar is encountered, the rebar will be removed and recycled or disposed of at an approved solid waste management facility. The remainder of the foundation space and crushed foundation material will be backfilled and covered with contaminant free granular material (e.g., soil) as described in Section 4.2.6.

4.2.3.2 102 Greenwood Street Property

Due to concentrations of PCBs in excess of 50 mg/kg in foundation concrete at the 102 Greenwood Street Property, the concrete foundation walls and basement slab will be demolished and broken up as necessary to facilitate off-site transportation and disposal at a permitted off-site disposal facility. Consistent with EPA approval, the concrete foundation at the 102 Greenwood Street Property will be managed as a PCB Remediation Waste and the concrete foundation and basement slab material will be loaded directly into lined roll-offs and transported off-site for disposal to a chemical waste landfill conforming to the requirements of 40 CFR Part 761.75 following EPA approval. Approximately 1300 cubic feet (approximately 97 tons) of concrete material will be removed from the 102 Greenwood Street Property.

4.2.3.3 118 Ruggles Street Property

Four exterior foam insulation samples collected from the foundation of the 118 Ruggles Street Property exhibited concentrations of PCBs in excess of 1 mg/kg. As a result, if feasible, the foam insulation material will be removed from the concrete foundation for disposal as PCB Remediation Waste less than 50 mg/kg. The foam insulation will be loaded directly into lined roll-offs and transported off-site for disposal at a Subtitle D landfill permitted to take PCB Remediation Wastes less than 50 mg/kg following approval by the EPA. Approximately 216 cubic feet of sub-grade foam material will be removed from the 118 Ruggles Street Property.

As detailed in Section 3.3.4.6 above, concrete samples collected from the 118 Ruggles Street Property, only one concrete sample exhibited a detectable concentration of PCBs, and the detection was below 1 mg/kg. As a result, the concrete foundation walls and basement slab will be demolished to a location at or below grade pursuant to the MassDEP Site Assignment Regulations for Solid Waste Facilities (310 CMR 16.00). Following removal of the foam insulation, the foundation walls will be broken up to a 6-inch minus size with a suitable excavator attachment (“nibbler”), or other machine/equipment, and be used as backfill in the remaining basement void or to cover nearby soil where the basement slab is at grade. The basement slabs will be broken up to a 6-inch minus size to enable drainage of the foundation. Additionally, if any rebar is encountered, the rebar will be removed and recycled or disposed of at an approved solid waste management facility. The remainder of the foundation space and crushed foundation material will be backfilled and covered with contaminant free granular material (e.g., soil) as described in Section 4.2.6.

If removal of the foam insulation from the concrete foundation is deemed to be infeasible (adhered to the concrete foundation such that removal is impossible and/or time prohibitive), the combined foam insulation and concrete material will be transported off-site for disposal as PCB Remediation Waste less than 50 mg/kg. The combined concrete and foam insulation will be broken up using an excavator to the degree necessary to place the material into roll-off containers. The material will be loaded directly into roll-offs and transported off-site for disposal at a permitted off-site disposal facility in accordance with 40 CFR Part 761.61 following approval by the EPA. Concrete foundation and/or basement slab material not associated with sub-grade foam insulation would be subject to on-site recycling consistent with MassDEP policy. The concrete foundation walls and/or basement slab will be demolished to a location at or below grade. The foundation walls and/or basement slab will be broken up to a 6-inch minus size using a suitable excavator attachment (“nibbler”), or other machine/equipment, and be used as backfill in the remaining basement void or to cover nearby soil where the basement slab is at grade. Additionally, if any rebar is encountered, the rebar will be removed and recycled or disposed of at an approved solid waste management facility. The remainder of the foundation space and crushed foundation material will be backfilled and covered with contaminant free granular material (e.g., soil) as described in Section 4.2.6.

4.2.4 Sampling and Analysis of Surficial Materials

Soil will be characterized through a combination of pre-construction and post-construction sampling and analysis as discussed below. This plan may be modified to accommodate logistical and scheduling issues in consultation with the LSP since the activities outlined in this plan may or may not be conducted in a single mobilization.

4.2.5 Site Reconstruction/Backfill Borrow Material

Imported backfill and/or loam will be considered contaminant-free soil if the source has documentation that the following analyses were performed and any detections encountered were below the current MCP Method 1 S-1 soil cleanup standards:

- Volatile Organic Compounds via SW-846 Method 8260B;
- Semivolatile Organic Compounds via SW-846 Method 8270C;

- Volatile Petroleum Hydrocarbons/Extractable Petroleum Hydrocarbons via MassDEP methodologies;
- Polychlorinated Biphenyls via SW-846 Method 8082;
- RCRA-8 Metals (via SW-846 Methods 6010B/7471A); and
- Pesticides/Herbicides via SW-846 Methods 8081A/8151A.

Lacking such documentation, the City may undertake sampling and analysis to guard against importation of contaminated soil and evaluate the suitability of the soil for its intended use.

4.2.6 Backfill and Restoration

Upon completion of the demolition, clean backfill material will be delivered to the site via the paved driveway and dumped adjacent to the excavated area. Delivery trucks will be kept on the driveway or steel plates. An excavator will be used to spread and grade the backfill material in 1-foot to 2-foot lifts and will be compacted using mechanical compaction. The City will place and compact sufficient backfill to cover the demolition footprint and blend into the existing surrounding grade. In addition, the City will cover the disturbed area with approximately 3- to 4-inches of loam.

After equipment is removed, loam will be fine graded by hand. All disturbed areas will be seeded. The silt fence and hay bales will be left in place until the grass is established. Once ground cover has been established the black fabric silt fence and hay bales will be removed. The black, metal, chain link perimeter fence will remain in place until such time that a complete remedy is implemented.

The City, through its Department of Public Facilities (DPF), will cut the grass at the six Acquired Residential Properties up to twice a month once the new grass is established through the end of the growing season (October). This schedule may be adjusted based on rainfall (i.e., drier conditions that do not promote growth).

4.2.7 Above-Ground Swimming Pool or Other Miscellaneous Aboveground Structures

The above-ground swimming pool and other miscellaneous aboveground structures will be dismantled and disposed of as solid waste. Pool liner and structure components in contact with potentially contaminated soil that is potentially regulated as a PCB Remediation Waste will be managed in accordance with 40 CFR Part 761.61(a)(5)(ii) and sampled in accordance with 40 CFR Part 761, Subpart P. Alternatively, the City may elect to dispose of the above-ground pool or other miscellaneous above ground structures as PCB Remediation Waste.

4.3 Equipment Decontamination

Equipment that comes into direct contact with soil, concrete or foam insulation determined to be actual or potential PCB Remediation Waste will be decontaminated by one of the methods referenced below. This includes those properties (101 and 102 Greenwood Street and 118 Ruggles Street Properties) where it has been documented that soil, concrete or foam insulation containing PCBs at or in excess of a concentration of 50 mg/kg are present:

- Self-Implementing Decontamination Procedures, as set forth under 40 CFR Part 761.79(c); or
- Aqueous cleaning followed by verification sampling as set forth under 40 CFR Part 761, Subpart P.

See Appendix H for relevant excerpts from 40 CFR Part 761.

There are multiple acceptable approaches for decontamination where TSCA jurisdiction applies. The City coordinated with EPA in advance to help ensure expectations are met during the demolition activities, as documented in the memorandum entitled *City-Acquired Property Demolition Management and Decontamination Provisions* submitted by the City to EPA on February 25, 2010. A copy of the memorandum is included as Appendix I.

The City proposed a prescriptive decontamination approach per 40 CFR Part 761.79(c)(2)(ii) that will avoid delays due to laboratory turn-around for verification wipe sampling. The actual procedures implemented will be documented in the RAM Status and/or Completion Report, but will rely on the swabbing of moveable equipment, tools and sampling implements that have contacted PCBs/PCB Remediation Waste with a solvent.

Regardless of the selected decontamination method, tools, moveable equipment, and sampling implements that comes into direct contact with soil, concrete or foam insulation determined to be actual or potential PCB Remediation Waste will be decontaminated prior to leaving the Site. This includes implementing decontamination procedures prior to moving equipment between the 102 Greenwood Street Property and the other Acquired Residential Properties. For consistency, these procedures will also be implemented at the properties where PCB Remediation Wastes are not an issue.

4.4 Implementation Schedule

The City anticipates that this work will begin as soon as possible following the concurrence of MassDEP and EPA, and is anticipated to be completed in approximately 5 weeks. This schedule is anticipated to include one week of preparatory activities (e.g., mowing of parcel lawns, staging of roll-off containers, placement of steel plates), one to two weeks for demolition, backfilling and restoration of 102 Greenwood Street Property, and two weeks for demolition, backfilling and restoration of the 101 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street Properties. Note that the black, metal, perimeter chain link security fence installation was completed as part of site preparation activities in early September 2009 following MassDEP approval. Gates were later installed in the black, metal, perimeter chain link security fence on February 16, 2010. An updated summary of the City of New Bedford's Demolition Plan and Schedule is included in Appendix E.

TRC anticipates submittal of a RAM Completion Report within 60 days of the completion of all RAM activities, or a RAM status report if the outcomes of activities do not warrant a RAM completion report.

5.0 REMEDIATION WASTE MANAGEMENT STATEMENT

This section describes procedures for the on-site management and off-site reuse, recycling, and/or disposal of remediation waste generated during this RAM. Remediation waste management will be conducted in accordance with the applicable sections of the MCP, MassDEP *Interim Remediation Waste Management Policy for Petroleum Contaminated Soils*, WSC-94-400 and MassDEP Policy COMM#97-001 *Reuse and Disposal of Contaminated Soils and Sediments at Massachusetts Landfills*, where applicable. PCB Remediation Waste will be managed consistent with the EPA TSCA regulations and EPA Region 1 input/approval, specifically the PCB Manufacturing, Processing, Distribution in Commerce and Use Prohibitions outlined in 40 CFR Part 761.

TRC anticipates that no soil will be transported from the Site as part of this RAM. To ensure proper management of all material and as a contingency should any amount of soil be deemed to require off-site disposal during the implementation of this RAM Plan, the following sections include a summary of proper management procedures. Such activity would be subject to the regulatory approvals necessary for such actions. Soil management procedures are also presented in the *Soil Management Plan* provided in Appendix F, which outlines the management plan for soil (if necessary), asphalt (if necessary) and construction waste management at the Site. The current plan calls for asphalt surfaces to remain in place. However, should the City opt to remove the driveways, the estimated volume of asphalt to be transported from the Site as part of this RAM is approximately 46 cubic yards.

Note that potentially contaminated soil will be excavated during site construction activities only to disconnect underground utilities at the site and incidentally during removal of the concrete foundation and associated footings. Such soil material will be temporarily managed on-site and returned to the excavation upon completing the disconnection and concrete removal task. Soils temporarily excavated to disconnect utilities and remove the concrete foundation and associated footings will not be removed from the Site.

5.1 On-Site Soil Management

There are no plans at this time to transport soil from the Site during implementation of this Revised Modified RAM Plan. Potentially contaminated soil excavated to disconnect site underground utilities and incidentally during concrete foundation removal will be overseen by qualified TRC field oversight personnel. During activities that involve the movement or other disturbance of potentially impacted soils, dust suppression consisting of water sprays will be routinely applied, and potential fugitive dust emissions will be monitored simultaneously (see Section 6).

Excavated soils associated with the RAM may be temporarily managed on the Site. The soil will be stockpiled on a minimum of 6-mil-thick polyethylene. Stockpiled materials will also be securely covered at the end of each work day or during periods of prolonged inactivity with a minimum of 6-mil-thick polyethylene overlapped and weighted to form a continuous waterproof barrier over the material. The cover will be maintained throughout the stockpile period to control water entering the stockpiled materials and to limit fugitive dust generation. The Site will be

secured by a temporary chain link fence around the perimeter that limits unauthorized entry and contact with stored materials by trespassers. Lined and covered roll-offs may also be utilized at the City's option.

The City may also elect to stockpile soil at the City-owned and operated Shawmut Avenue Transfer Station, where this is allowed under applicable MassDEP or EPA regulations.

If soil removal for off-site disposal becomes necessary, a Soil Management Plan has been prepared as a contingency (see Appendix F). No soil removal will take place without regulatory approval.

5.2 Off-Site Re-use, Recycling, and/or Disposal

Should any excavated soil be transported from the Site it will first be characterized to help evaluate options for off-site reuse, recycling, and/or disposal at a suitable facility. No facility locations have been identified at this time since the project is not expected to displace regulated soils. Soil characterization samples will be collected from stockpiled material and submitted for laboratory analysis prior to transportation off-site. The laboratory results will be compared against Massachusetts reuse, recycling, and disposal criteria in accordance to MassDEP Policy# COMM-97-001 and Interim Policy #WSC-94-400, and will be subject to review by the potential receiving facility.

Use of MassDEP COMM-97-001 and WSC-94-400 tabulated acceptance criteria values would not preclude the use of out-of-state facilities that offer similar reuse (e.g., landfill daily cover) or recycling (e.g., asphalt batch), or disposal opportunities. Such opportunities would be evaluated and/or utilized on a case-by-case basis assuming facility acceptance criteria can be met and the facility is currently permitted within its regulatory jurisdiction for the reuse and/or recycling service provided. TSCA regulated soils will be managed at a permitted facility allowed to accept PCB Remediation Waste.

Transportation of all materials from the site will be performed using a MassDEP Bill of Lading (BOL), Material Shipping Record (MSR) or Hazardous Waste Manifest, and will be performed within 120 days of stockpiling in accordance with 310 CMR 40.0030 of the MCP.

The transport of impacted materials from the Site to the disposal facility will be in accordance with United States Department of Transportation (DOT), United States Environmental Protection Agency (EPA), and MassDEP regulations. The hauler(s) will be licensed in all states affected by the transport of Site soil.

5.3 PCB Remediation Waste

Concrete foundation material at the 102 Greenwood Street Property and sub-grade foam insulation material located at the 118 Ruggles Street Property constitutes PCB Remediation Waste pursuant to EPA's PCB regulations under 40 CFR Part 761 and EPA's approval. Please refer to Appendix B for additional information pertaining to PCB Remediation Waste associated with the demolition activity.

At the 102 Greenwood Street Property, the concrete foundation and basement slab material will be loaded directly into lined roll-offs and transported off-site for disposal as PCB Remediation Waste in accordance with 40 CFR Part 761.61 following approval by the EPA.

If feasible, the foam insulation material will be removed from the 118 Ruggles Street Property concrete foundation for disposal as PCB Remediation Waste less than 50 mg/kg. The foam insulation will be loaded directly into roll-offs and transported off-site for disposal in accordance with 40 CFR Part 761.61 following approval by the EPA. If removal of the foam insulation from the concrete foundation is deemed to be infeasible, the foam insulation and associated concrete material will be transported off-site for disposal as PCB Remediation Waste less than 50 mg/kg.

No soil removal is currently planned under this RAM. Should soil removal need to occur, regulatory concurrence/approval will be sought in advance. The removal of soil from certain portions of the Site may be jurisdictional under the EPA's PCB regulations under 40 CFR Part 761. If removal of soil material determined to be PCB Remediation Waste has to take place, the City will work closely with the EPA Region 1 PCB Coordinator to evaluate management options and obtain approval.

5.4 PCB Decontamination Fluid and Non-Liquid Cleaning Material Management

Two potential TSCA-compliance decontamination approaches are proposed as noted in Section 4.3, a Self-Implementing Decontamination Procedure described under 40 CFR Part 761.79(c) and an aqueous cleaning procedure followed by verification sampling as allowed for under 40 CFR Part 761, Subpart P of the PCB regulations.

Under the Subpart P aqueous decontamination/verification approach, the spent aqueous decontamination fluids produced will be managed per the PCB decontamination standards described under 40 CFR Part 761.79(b)(ii) and (iii). Under this regulation, the decontamination standard for PCBs in water is less than 3 micrograms per liter (ug/L) total PCBs for discharge to navigable waters or treatment works and less than 0.5 ug/L total PCBs for unrestricted reuse. All of the proposed liquid waste streams are aqueous and subject to this standard, but waste liquids (such as spent Simple Green™) should be managed in a separate container to the degree practicable. If the analytical results indicate less than 3 ug/L PCBs, the decontamination fluids may be discharged to the public sanitary sewer (assuming compliance with City PCB discharge permits). If analytical results indicate less than 0.5 ug/L PCBs, the liquids may be discharged to the ground surface at the site.

Under the self-implementing decontamination approach, where solvent containing rags may be used to swab/decontaminate non-porous surfaces, spent solvents and solvent soaked rags will be managed for disposal via incineration at a permitted facility per 40 CFR Part 761.79(g)(3), (4) or (5).

Non-liquid cleaning materials (e.g., rags, gloves, brushes, booties) and personal protective equipment (PPE) waste will be managed in accordance with §761.61(a)(5)(v), which allows for disposal as solid waste.

6.0 ENVIRONMENTAL MONITORING PLAN

TRC personnel will be on-site during the demolition and as needed for management of concrete and sub-grade foam insulation, and impacted soil (if necessary), and will conduct environmental monitoring activities as described herein. This section also includes clarification regarding dust monitoring.

6.1 Field Screening Associated with Soil Removal

Field screening of soil will be conducted as part of the RAM to monitor soil conditions and excavation progress.

6.1.1 Jar-Headspace Field Screening of Soils

VOCs are not a concern at the Site based on prior sampling and analysis of soil. As a precaution, soil samples disturbed or excavated as described herein to accomplish demolition activity will be periodically screened via the MassDEP jar-headspace method for the potential presence of VOCs based on professional judgment. TRC is prepared to sample and analyze soil for which field observations suggest potential VOC impact.

6.2 Air Monitoring

On-site air monitoring will be conducted to evaluate Site working conditions to minimize exposures to workers and nearby residents. During demolition and site work, water spraying will be utilized to prevent fugitive dust.

During all dwelling structure demolition, concrete foundation and basement slab crushing and management and soil excavation and management activities, dust suppression consisting of water sprays will be routinely applied, and potential fugitive dust emissions will be monitored simultaneously (see Section 6.2.1). Water sprays will be applied as a heavy mist, rather than a water stream, to ensure the water is aerosolized to maximize dust capture/interception and thus dust suppression. Increased water sprays (e.g., additional hoses and/or water volume) will be implemented based on visual observations of effectiveness and instrumented monitoring. Where wind conditions are present that render dust suppression ineffective based on instrument readings and/or visual observations (based on the professional judgment of environmental oversight personnel), those activities will be suspended until favorable wind conditions resume/return or dust suppression suitable for the conditions can be implemented.

6.2.1 Instrumented Air Monitoring for Dust

Air monitoring will be performed using a combination of real-time dust and VOC monitoring during building demolition, foundation removal, basement slab breaking, and backfilling activities.

It is anticipated that impacted material will not be encountered during these construction activities, with the exception of the disconnection of buried utilities, incidental soil disturbance

during concrete foundation and associated footing removal, removal of concrete from the 102 Greenwood Street Property and removal of sub-grade foam insulation from the 118 Ruggles Street Property. During soil excavation for utility disconnection, a small amount of soil disturbance is anticipated and may not require dust monitoring (depending on site and weather conditions). When potentially impacted soils are encountered during RAM-related soil excavation and management activities, and during building demolition, foundation removal, basement slab breaking, and backfilling activities, real-time field screening of breathing zone dust levels will be conducted using direct reading instruments that are designed to monitor air quality on a real-time basis (digital displays that allow personnel to periodically observe and record current monitoring conditions). A second instrument will be used to monitor dust levels downwind of the excavation, while a third instrument will be used as a precaution to monitor dust levels between the work zone and the nearest property (e.g., residence, school, etc.) regardless of the wind direction.

The dust monitoring units will be TSI Dustrak™ units, or equivalent, equipment with size-selective inlet for particles of 10 micrometers in diameter or less (PM₁₀). Background samples will be collected for at least 15 minutes at each location prior to the start of site activities. The continuous dust monitor uses a light scattering photometer to quantify particles and converts the counts to a concentration in units of milligrams per cubic meter (mg/m³). This instrumentation has an accuracy of 0.001 mg/m³ (1 ug/m³). The dust monitoring instruments will be placed in weatherproof cases with an omni-directional probe to minimize wind interference. The dust monitoring instruments will be zeroed daily before use and at the end of the day. Data will be logged at 60-second intervals and will be monitored periodically by field personnel during RAM-related excavation activities. Data will be downloaded daily.

If sustained ambient dust levels exceed the EPA National Ambient Air Quality Standard (NAAQS) of 150 µg/m³ at downwind sampling locations (a sustained reading would consist of a reading lasting 15 minutes or longer), dust suppression activities will be increased with a greater usage of water sprays. Each dust monitor is equipped with an alarm to alert onsite personnel to any elevated dust levels.

As noted in Section 6.2, during dwelling structure demolition, concrete foundation and basement slab crushing and management and soil displacement activities, dust suppression consisting of water sprays will be routinely implemented, and potential fugitive dust emissions will be monitored simultaneously. Increased water sprays (e.g., additional hoses and/or water volume) will be implemented based on visual observations of effectiveness and instrumented monitoring. Where wind conditions are present that render dust suppression ineffective based on instrument readings and/or visual observations (based on the professional judgment of environmental oversight personnel), those activities will be suspended until favorable wind conditions resume/return or dust suppression suitable for the conditions can be implemented.

6.2.1.1 Instrumented Metrological Monitoring

The prevailing wind direction will be determined daily based on the available national weather service data (e.g., current National Oceanic and Atmospheric Administration conditions for New Bedford, Massachusetts). The localized site wind direction will be monitored at each dust

monitoring location by equipping each station with a free hanging flag/ribbon subject to the influence of the wind. Onsite field personnel will regularly check the wind direction and fugitive dust monitors will be adjusted, based on changes in the localized wind direction, throughout RAM-related activities.

A portable digital meteorological station may also be deployed during the execution of the RAM to monitor and record temperature, wind speed and direction, wind chill, and daily and accumulated rainfall, barometric pressure, humidity, and dew point. These data would be collected continuously and downloaded for record preservation regularly. Field oversight personnel would also periodically manually record instrument readings during the progress of the work to monitor field conditions and as a basis for checking the recorded data. Conditions at the time of a weather-related suspension of field activities (e.g., excessive winds impacting the effectiveness of dust suppression) would also be recorded manually and checked against the data recorded by the instrument.

6.2.1.2 Instrumented VOC Air Monitoring

VOC air monitoring will be performed using a photo-ionization detector (PID) to monitor for the presence of VOCs within the work area breathing zone. Based on previously existing site data, significant VOC emissions are not expected during construction, but field monitoring of the breathing zone for VOCs will be conducted as a precaution. Periodically (e.g., during routine checks of the real-time dust monitoring instrumentation), TRC will collect PID measurements in locations upwind and downwind of demolition or soil disturbance activities, as well as in the location used to monitor dust levels between the work zone and the nearest property (e.g., residence, school, etc.) regardless of the wind direction.

6.3 Action Levels

Instrument readings from breathing zones within the work zone will be used to help evaluate the need for instituting additional safety measures or upgrading personal protective equipment (PPE) levels.

The ambient Action Level for dust is based on the EPA 24 hour NAAQS for PM₁₀ particulate of 150 $\mu\text{g}/\text{m}^3$. The modeling conducted to support the derivation of the 150 $\mu\text{g}/\text{m}^3$ dust level indicates that the PCB concentration would need to be at least 2,000 mg/kg in soil or concrete before the EPA Acceptable Long-Term Average Exposure Concentration of 0.3 $\mu\text{g}/\text{m}^3$ employed for Keith Middle School (KMS) and New Bedford High School (NBHS) indoor air monitoring is exceeded. This assumes the PCB concentration is a uniform 2,000 mg/kg and the dust level is sustained. The assumptions and concentration basis are both very conservative; therefore, the action level for real-time dust monitoring is expected to be protective, especially over the short duration of the planned work.

If PID readings are sustained above 5 parts per million by volume (ppmv) in the breathing zone for at least five minutes, all on-site workers will be moved to an upwind location and TRC's office health and safety coordinator and/or corporate health and safety manager will be contacted

to evaluate suitable response actions. Any upgrade in respiratory protection will be coordinated with the corporate health and safety manager and/or the office health and safety coordinator.

7.0 FEDERAL, STATE & LOCAL PERMITS

7.1 Federal Permit Requirements

A PCB Remediation Notification was submitted to EPA pursuant to 40 CFR Part 761.61(a)(3) for self-implementing on-site cleanup and disposal of PCB Remediation Waste seeking approval for the residential building demolition and foundation management, which is included in Appendix B. An addendum to the notification letter was subsequently submitted by the City to EPA on February 17, 2010 (see Appendix C). A memorandum detailing proposed waste management and decontamination provision was also submitted by the City to EPA on February 25, 2010 (see Appendix I).

7.2 State Permit Requirements

An On-Site Rubble Crushing Notification Form was submitted to the MassDEP Bureau of Waste Prevention and the City of New Bedford Board of Health, in compliance with 310 CMR 16.05(3)(e)6 at least 30 days prior to crushing concrete on-site (see Appendix G).

The project is exempt from submission of a Notification Prior to Construction or Demolition Massachusetts Department of Environmental Protection Form BWP AQ 06, given that submission of the form is not required for residential buildings with less than 20 units.

Any state permit requirements for additional building-related hazardous waste removal will be submitted by the City's asbestos and hazardous waste removal contractor.

7.3 Local Permit Requirements

There are no known Local environmental permit requirements.

7.4 Miscellaneous Fees, Notices, and Transportation Documentation

Because the Site is not Tier Classified under the MCP, an \$800 RAM Plan fee must be submitted to MassDEP concurrent with this RAM Plan. The \$800 fee has been submitted to the MassDEP lock box at DEP, P.O. Box 4062, Boston, MA, 02211-4062. Appendix J contains a copy of the check for the original (September 9, 2009) RAM Plan fee for documentation purposes. Because a one-time fee was previously submitted to the MassDEP, no additional fee was submitted for this Revised Modified RAM Plan.

Massachusetts Dig-Safe must be notified at least 72 hours prior to commencing the excavation activities described in this RAM Plan. The City or City's contractor will be responsible for construction/refurbishment related Digsafe[®] notifications.


All soil material that is transported from the site must be transported under a MassDEP BOL that contains the signature and seal of the LSP of record for the site, or under a MSR or hazardous waste manifest.

8.0 SEAL & SIGNATURE OF LICENSED SITE PROFESSIONAL

The Licensed Site Professional (LSP) overseeing this RAM is:

David M. Sullivan, LSP, CHMM
LSP License Number: 1488
TRC Environmental Corporation
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854
(978) 656-3565

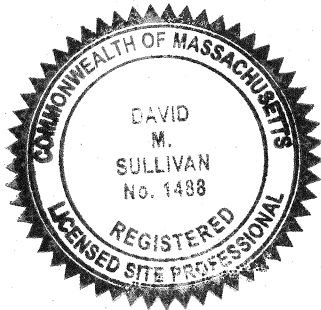
This Revised Modified RAM Plan has been prepared in accordance with 310 CMR 40.0444 as set forth in the MCP.



David M. Sullivan, LSP, CHMM
TRC Environmental Corporation
Licensed Site Professional No. 1488

7/6/2010

Date



Stamp

9.0 CERTIFICATION OF FINANCIAL RESOURCES

The certification of financial resources under 310 CMR 40.0442(5) is not needed since the volume of soil displaced, if any, will not exceed 1,500 cubic yards.

10.0 OTHER RELEVANT INFORMATION

10.1 Public Involvement

Per 310 CMR 40.1403(3)(d), the Mayor and the Board of Health for the City of New Bedford were notified in writing of the proposed Revised Modified RAM activities. Copies of the notification letters that were sent to the Mayor and Board of Health are provided in Appendix K.

Citizens had a 20-day public comment period during which they were welcome to submit questions and comments about the Revised Modified RAM plan to the City for consideration. The City prepared written responses to the questions and comments received, and the City provided a copy of those responses to both citizens and MassDEP before the plan was finalized and submitted to MassDEP.

11.0 REFERENCES

- MassGIS, 2008 Massachusetts Geographic Information System (MassGIS), On-line MassDEP Priority Resource Map. Accessed July 28, 2008.
<http://maps.massgis.state.ma.us/21e/viewer.htm>
- MassDEP, 2002 *Technical Update – Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil*. Prepared by the Massachusetts Department of Environmental Protection (MassDEP) Office of Research and Standards. May 2002.
- MassDEP, 1994 *Interim Remediation Waste Management Policy for Petroleum Contaminated Soils*, WSC-94-400,
- MassDEP, 1997 *COMM#97-001 Reuse and Disposal of Contaminated Soils and Sediments at Massachusetts Landfills*.

TABLES

TABLE 1
Summary of Analytical Detected Results for Soil Samples - 101 Greenwood Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						E-4 (E-54)				E-5 (E-55)			E1	F2				G2				G5		HI	H2							
		S-1/GW-2		S-1/GW-3		S-2/GW-3		RC S-1		TSCA		12/20/2005		12/20/2005	12/19/2005		12/19/2005		12/19/2005		12/19/2005		12/19/2005		12/19/2005	12/19/2005		12/19/2005		12/19/2005		Field Dup		
		1-3	3-6	3-6*	6-9	0.5-3	3-6	6-8.5	1-2	0.25-3	3-6	3-6*	6-8	0.5-3	0-1	3-6	6-9	1.5-3	3-6	1-3	0.5-3	3-6	6-8.5	6-8.5										
VOCs	Trichloroethene	2	90	2	700	0.3	NA	NA	NA	NA	0.062 U	0.062 U	0.064 U	NA	0.06 U	0.065 U	NA	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	NA	NA	NA	0.31 U	0.7	2	NA	0.3 U	0.32 U	NA	0.38 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
	Toluene	500	500	1000	1000	30	NA	NA	NA	NA	0.062 U	0.062 U	0.064 U	NA	0.06 U	0.065 U	NA	0.077 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Tetrachloroethene	10	30	10	200	1	NA	NA	NA	NA	0.062 U	0.062 U	0.064 U	NA	0.06 U	0.065 U	NA	0.077 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Chlorobenzene	3	100	3	100	1	NA	NA	NA	NA	0.062 U	0.062 U	0.064 U	NA	0.06 U	0.065 U	NA	0.077 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Ethylbenzene	500	500	1000	1000	40	NA	NA	NA	NA	0.062 U	0.062 U	0.064 U	NA	0.06 U	0.065 U	NA	0.077 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	m & p-Xylene	300	500	300	1000	300	NA	NA	NA	NA	0.12 U	0.12 U	0.13 U	NA	0.12 U	0.13 U	NA	0.15 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	0.062 U	0.51	11	NA	0.06 U	0.065 U	NA	0.077 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Acenaphthylene	600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene		2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene		0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene		80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene		40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene		500	500	1000	1000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenzofuran		NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBs (ng/kg)	Aroclor 1221	2	2	3	3	2	1	0.258 U	0.259 U	ND	0.319 U	0.263 U	0.269 U	0.263 U	0.228 U	0.243 U	0.262 U	ND	0.257 U	0.253 U	0.1 U	0.258 U	0.274 U	0.255 U	0.303 U	0.207 U	0.235 U	0.265 U	0.518 U	0.382 U				
	Aroclor 1232	2	2	3	3	2	1	0.129 U	0.13 U	ND	0.16 U	0.132 U	0.134 U	0.132 U	0.144 U	0.122 U	0.131 U	ND	0.129 U	0.126 U	0.2 U	0.129 U	0.137 U	0.127 U	0.151 U	0.104 U	0.118 U	0.133 U	0.259 U	0.191 U				
	Aroclor 1016/1242	2	2	3	3	2	1	0.129 U	0.13 U	ND	0.16 U	0.132 U	0.134 U	0.132 U	0.144 U	0.122 U	0.131 U	ND	0.129 U	0.126 U	0.1 U	0.129 U	0.137 U	0.127 U	0.151 U	0.104 U	0.118 U	0.133 U	0.259 U	0.191 U				
	Aroclor 1248	2	2	3	3	2	1	0.129 U	0.13 U	ND	0.16 U	0.132 U	0.134 U	0.132 U	0.144 U	0.122 U	0.131 U	ND	0.129 U	0.126 U	0.1 U	0.129 U	0.137 U	0.127 U	0.151 U	0.104 U	0.118 U	0.133 U	0.259 U	0.191 U				
	Aroclor 1254	2	2	3	3	2	1	2.51	0.372	0.66	0.16 U	2.34	0.134 U	0.687	1.85	3.66	0.784	5.6	3.01	10.4	0.226	23.3	1.37 U	2.03	1.06	0.104 U	0.968	799	1.87	2.46				
	Aroclor 1260	2	2	3	3	2	1	3.5	0.455	0.35	0.16	4.53	0.868	1.71	0.816	2.09	0.621	1.9	2.11	0.126 U	0.1 U	0.129 U	0.137 U	0.127 U	0.156	0.867	0.104 U	0.81	177	0.259 U	1.24			
	Aroclor 1262	2	2	3	3	2	1	0.129 U	0.13 U	ND	0.16 U	0.132 U	0.134 U	0.132 U	0.144 U	0.122 U	0.131 U	ND	0.129 U	0.126 U	0.1 U	0.129 U	0.137 U	0.127 U	0.151 U	0.104 U	0.118 U	0.133 U	0.259 U	0.191 U				
	Aroclor 1268	2	2	3	3	2	1	0.129 U	0.13 U	ND	0.16 U	0.132 U	0.134 U	0.132 U	0.144 U	0.122 U	0.131 U	ND	0.129 U	0.126 U	0.1 U	0.129 U	0.137 U	0.127 U	0.151 U	0.104 U	0.118 U	0.133 U	0.259 U	0.191 U				
	Total PCBs	2	2	3	3	2	1	6.01	0.827	1.01	0.16	6.87	0.868	2.397	2.666	5.75	1.405	7.5	5.12	10.4	0.226	23.3	1.37 U	3.59	1.927	0.207 U	1.778	976	1.87	3.7				
	Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium		2	2	30	30	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium		30	30	200	200	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead		300	300	300	300	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury		20	20	30	30	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Selenium		400	400	800																														

TABLE 1
Summary of Analytical Detected Results for Soil Samples - 101 Greenwood Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						H3			H4			H5			I3		I4	I5	
		Sample Date:						12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	
		Sample Depth (ft.):						1-3	3-6	6-9	1-3	3-6	6-7,75	1-3	3-6	6-7	1-3	1-3 Field Dup	1-3	3-6	6-7
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA														
VOCs	Trichloroethene	2	90	2	700	0.3	NA	NA	NA	NA	0.069 U	ND	0.13 U	NA	NA	NA	NA	NA	NA	0.065 U	NA
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	NA	NA	NA	0.35 U	ND	0.63 U	NA	NA	NA	NA	NA	NA	0.33 U	NA
	Toluene	500	500	1000	1000	30	NA	NA	NA	NA	0.069 U	ND	0.13 U	NA	NA	NA	NA	NA	NA	0.065 U	NA
	Tetrachloroethene	10	30	10	200	1	NA	NA	NA	NA	0.069 U	ND	0.13 U	NA	NA	NA	NA	NA	NA	0.065 U	NA
	Chlorobenzene	3	100	3	100	1	NA	NA	NA	NA	0.069 U	ND	0.13 U	NA	NA	NA	NA	NA	NA	0.065 U	NA
	Ethylbenzene	500	500	1000	1000	40	NA	NA	NA	NA	0.069 U	ND	0.13 U	NA	NA	NA	NA	NA	NA	0.065 U	NA
	m & p-Xylene	300	500	300	1000	300	NA	NA	NA	NA	0.14 U	ND	0.25 U	NA	NA	NA	NA	NA	NA	0.13 U	NA
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	0.069 U	ND	0.13 U	NA	NA	NA	NA	NA	NA	0.065 U	NA
	PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene		600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene		0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene		80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene		40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene		500	500	1000	1000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	0.215 U	0.219 U	0.331 U	0.257 U	0.265 U	0.288 U	0.24 U	0.267 U	0.3 U	0.208 U	0.209 U	0.212 U	0.201 U	0.281 U
	Aroclor 1232	2	2	3	3	2	1	0.107 U	0.11 U	0.165 U	0.128 U	0.133 U	0.144 U	0.12 U	0.134 U	0.15 U	0.104 U	0.105 U	0.106 U	0.1 U	0.141 U
	Aroclor 1016/1242	2	2	3	3	2	1	0.107 U	0.11 U	0.165 U	0.128 U	0.134 U	0.145 U	0.12 U	0.134 U	0.15 U	0.104 U	0.105 U	0.106 U	0.1 U	0.141 U
	Aroclor 1248	2	2	3	3	2	1	0.107 U	0.11 U	0.165 U	0.128 U	0.135 U	0.146 U	0.12 U	0.134 U	0.15 U	0.104 U	0.105 U	0.106 U	0.1 U	0.141 U
	Aroclor 1254	2	2	3	3	2	1	1.27	1.58	10.7	0.787	1.71	0.714	1.81	0.486	0.15 U	0.104 U	0.105 U	0.106 U	0.1 U	0.141 U
	Aroclor 1260	2	2	3	3	2	1	0.611	0.81	4.67	3.77	1.32	0.697	1.28	0.399	0.15 U	0.104 U	0.105 U	0.106 U	0.1 U	0.141 U
	Aroclor 1262	2	2	3	3	2	1	0.107 U	0.11 U	0.165 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aroclor 1268	2	2	3	3	2	1	0.107 U	0.11 U	0.165 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total PCBs	2	2	3	3	2	1	1.881	2.39	15.37	4.557	3.03	1.411	3.09	0.885	0.3 U	0.208 U	0.209 U	0.212 U	0.201 U	0.281 U
	Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		2	2	30	30	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium		30	30	200	200	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead		300	300	300	300	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury		20	20	30	30	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium		400	400	800	800	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium		8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium		600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, TCLP (mg/L)	Lead, TCLP	NS	NS	NS	NS	NS	5.0 ⁽⁵⁾	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (mg/kg)	Diesel Range Organics	1000	1000	3000	3000	1000	NA	NA	NA	NA	138	164	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Gasoline Range Organics	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	22.3	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
 (1) Sample identifications in parenthesis denotes identification utilized on figures.
 All units in mg/kg unless otherwise specified.
 mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
 mg/L - milligrams per liter.
 NA - Sample not analyzed for the listed analyte.
 ND - Not detected; quantitation limit not available in historical data.
 U - Compound was not detected at specified quantitation limit.
 Values in Bold indicate the compound was detected.
 Values shown in Bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.
 Values shown in bold and outlined exceed TSCA standard.
 PAHs - Polynuclear Aromatic Hydrocarbons.
 PCBs - Polychlorinated Biphenyls.
 RC - Reportable Concentration.
 TSCA - Toxic Substances Control Act criteria.
 Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.
⁵ - Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.
 * - Depth not available in historical report.

TABLE 2
Summary of Analytical Detected Results for Soil Samples - 102 Greenwood Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						102 Comp 1 (102-GW-COM-1)			K1.3 (K1_3)		K5.5 (K5_5)		L1.3 (L1_3)		M1.3 (M1_3)		SB-185			SB-186	
		Sample Date:						6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008			
		Sample Depth (ft.):						0-3	3-6	6-native	0.5-3	7.5-8	0.5-3	5-7	1-4	9-10	3-4	7.5-8	2	4	6	2	3.4
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA																
PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.258	NA	NA	
	Acenaphthylene	600	10	600	10	1	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.193 U	NA	NA	
	Anthracene	1000	1000	3000	3000	1000	NA	0.28	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.692	NA	NA	
	Benzo(a)anthracene	7	7	40	40	7	NA	0.46	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.69	NA	NA	
	Benzo(a)pyrene	2	2	4	4	2	NA	0.43	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.75	NA	NA	
	Benzo(b)fluoranthene	7	7	40	40	7	NA	0.59	0.36	0.43	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.30	NA	NA	
	Benzo(g,h,i)perylene	1000	1000	3000	3000	1000	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.963	NA	NA	
	Benzo(k)fluoranthene	70	70	400	400	70	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.763	NA	NA	
	Chrysene	70	70	400	400	70	NA	0.49	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.87	NA	NA	
	Dibenz(a,h)anthracene	0.7	0.7	4	4	0.7	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.362	NA	NA	
	Fluoranthene	1000	1000	3000	3000	1000	NA	0.61	0.42	0.61	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.68	NA	NA	
	Fluorene	1000	1000	3000	3000	1000	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.341	NA	NA	
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.12	NA	NA	
	2-Methylnaphthalene	80	300	80	500	0.7	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.193 U	NA	NA	
	Naphthalene	40	500	40	1000	4	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.245	NA	NA	
	Phenanthrene	500	500	1000	1000	10	NA	0.41	0.27 U	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.47	NA	NA	
	Pyrene	1000	1000	3000	3000	1000	NA	0.79	0.48	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.55	NA	NA	
Dibenzofuran	NS	NS	NS	NS	100	NA	0.26 U	0.27 U	0.29 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	ND	ND	ND	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U	1.64 U	1.08 U	0.231 U	0.0550 U	0.0538 U
	Aroclor 1232	2	2	3	3	2	1	ND	ND	ND	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U	1.64 U	1.08 U	0.231 U	0.0550 U	0.0538 U
	Aroclor 1016/1242	2	2	3	3	2	1	ND	ND	ND	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U	1.64 U	1.08 U	0.231 U	0.0550 U	0.0538 U
	Aroclor 1248	2	2	3	3	2	1	ND	ND	ND	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U	1.64 U	1.08 U	0.231 U	0.0550 U	0.0538 U
	Aroclor 1254	2	2	3	3	2	1	ND	ND	ND	0.1 U	5.15	0.117 U	0.117 U	0.108 U	0.552	0.179	12.4	68.3 J	45.7 J	10.7 J	0.798 J	0.376 J
	Aroclor 1260	2	2	3	3	2	1	ND	ND	ND	0.1 U	0.13 U	0.117 U	0.117 U	0.141	0.111 U	0.108 U	0.113 U	1.64 U	1.08 U	0.231 U	0.402 J	0.635 J
	Aroclor 1262	2	2	3	3	2	1	NA	NA	NA	0.1 U	1.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U	NA	NA	NA	NA	NA
	Aroclor 1268	2	2	3	3	2	1	NA	NA	NA	0.1 U	2.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U	NA	NA	NA	NA	NA
	Total PCBs	2	2	3	3	2	1	ND	ND	ND	0.1 U	5.15	0.117 U	0.117 U	0.141	0.552	0.179	12.4	68.3 J	45.7 J	10.7 J	1.20 J	1.011 J
	Metals, total	Arsenic	20	20	20	20	20	NA	1.52	3.48	6.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.07	NA	NA
Barium		1000	1000	3000	3000	1000	NA	27	58	421	NA	NA	NA	NA	NA	NA	NA	NA	NA	113	NA	NA	
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.29 U	NA	NA	
Cadmium		2	2	30	30	2	NA	0.44	0.8	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.49	NA	NA	
Chromium		30	30	200	200	30	NA	16	9.15	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.82	NA	NA	
Lead		300	300	300	300	300	NA	38	191	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	673	NA	NA	
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.9	NA	NA	
Mercury		20	20	30	30	20	NA	0.097	0.232	0.111	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.131	NA	NA	
Selenium		400	400	800	800	400	NA	0.63 U	0.73 U	0.77 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.79 U	NA	NA	
Silver		100	100	200	200	100	NA	0.32 U	0.36 U	0.39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.33	NA	NA	
Thallium		8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.48 U	NA	NA	
Vanadium		600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.46	NA	NA	
Zinc		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,490	NA	NA	

Notes:

(1) Sample identifications in parenthesis denotes identification utilized on figures.

All units in mg/kg unless otherwise specified.

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter

NA - Sample not analyzed for the listed analyte.

ND - Not detected; quantitation limit not available in historical data.

U - Compound was not detected at specified quantitation limit.

Values in Bold indicate the compound was detected.

Values shown in Bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.

Values shown in bold and outlined exceed TSCA standard.

PAHs - Polynuclear Aromatic Hydrocarbons.

PCBs - Polychlorinated Biphenyls.

RC - Reportable Concentration.

TSCA - Toxic Substances Control Act criteria.

Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.

* = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.

* - Depth not available in historical report.

TABLE 2
Summary of Analytical Detected Results for Soil Samples - 102 Greenwood Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						SB-187		SB-188			SB-189				SB-190				SB-191			SB-192							
		Sample Date:						6/9/2008	6/9/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008					
		Sample Depth (ft.):						4	6	1	4.5	9	1	3.5	7	11	1	4	4	6	8	1	4	8	1	4	9				
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA																								
PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	0.206 U	NA	0.195 U	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Acenaphthylene	600	10	600	10	1	NA	NA	0.206 U	NA	0.195 U	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Anthracene	1000	1000	3000	3000	1000	NA	NA	0.206 U	NA	0.341	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	0.645	NA	1.05	0.181 U	NA	0.175 U	0.184 U	NA	0.462	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	0.602	NA	0.890	0.181 U	NA	0.175 U	0.184 U	NA	0.495	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	0.886	NA	1.26	0.181 U	NA	0.175 U	0.184 U	NA	0.771	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Benzo(g,h,i)perylene	1000	1000	3000	3000	1000	NA	NA	0.419	NA	0.456	0.181 U	NA	0.175 U	0.184 U	NA	0.301	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	0.330	NA	0.574	0.181 U	NA	0.175 U	0.184 U	NA	0.265	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Chrysene	70	70	400	400	70	NA	NA	0.738	NA	1.24	0.181 U	NA	0.175 U	0.184 U	NA	0.512	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Dibenz(a,h)anthracene	0.7	0.7	4	4	0.7	NA	NA	0.206 U	NA	0.195 U	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.195	0.178 U				
	Fluoranthene	1000	1000	3000	3000	1000	NA	NA	1.58	NA	2.50	0.181 U	NA	0.175 U	0.184 U	NA	0.954	9.96 U	9.63 U	NA	0.182 U	NA	0.221	0.186 U	NA	0.193 U	0.178 U				
	Fluorene	1000	1000	3000	3000	1000	NA	NA	0.206 U	NA	0.195 U	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	0.449	NA	0.430	0.181 U	NA	0.175 U	0.184 U	NA	0.346	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	0.206 U	NA	0.195 U	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Naphthalene	40	500	40	1000	4	NA	NA	0.206 U	NA	0.195 U	0.181 U	NA	0.175 U	0.184 U	NA	0.189 U	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Phenanthrene	500	500	1000	1000	10	NA	NA	1.12	NA	1.64	0.181 U	NA	0.175 U	0.184 U	NA	0.348	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Pyrene	1000	1000	3000	3000	1000	NA	NA	0.943	NA	1.73	0.181 U	NA	0.175 U	0.184 U	NA	0.588	9.96 U	9.63 U	NA	0.182 U	NA	0.220 U	0.186 U	NA	0.193 U	0.178 U				
	Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
	PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	0.0539 U	0.123 U	0.0682 U	0.0597 U	0.0510 U	0.0531 U	0.0509 U	0.0552 U	0.0531 U	0.0557 U	0.0581 U	0.0602 U	0.0639 U	0.0522 U	0.0510 U	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U			
		Aroclor 1232	2	2	3	3	2	1	0.0539 U	0.123 U	0.0682 U	0.0597 U	0.0510 U	0.0531 U	0.0509 U	0.0552 U	0.0531 U	0.0557 U	0.0581 U	0.0602 U	0.0639 U	0.0522 U	0.0510 U	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U			
Aroclor 1016/1242		2	2	3	3	2	1	0.0539 U	0.123 U	0.0682 U	0.0597 U	0.0510 U	0.0531 U	0.0509 U	0.0552 U	0.0531 U	0.0557 U	0.0581 U	0.0602 U	0.0639 U	0.0522 U	0.0510 U	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U				
Aroclor 1248		2	2	3	3	2	1	0.0539 U	0.123 U	0.0682 U	0.0597 U	0.0510 U	0.0531 U	0.0509 U	0.0552 U	0.0531 U	0.0557 U	0.0581 U	0.0602 U	0.0639 U	0.0522 U	0.0510 U	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U				
Aroclor 1254		2	2	3	3	2	1	0.181 J	4.63 J	0.358 J	0.436 J	0.0510 U	0.0673 J	0.0509 U	0.191 J	0.0531 U	0.0557 U	0.199 J	0.310 J	0.358 J	0.0522 U	0.142 J	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U				
Aroclor 1260		2	2	3	3	2	1	0.0889 J	1.25 J	0.222 J	0.306 J	0.0510 U	0.0531 U	0.0509 U	0.0552 U	0.0531 U	0.425 J	0.0581 U	0.119 J	0.616 J	0.0522 U	0.0510 U	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U				
Aroclor 1262		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Aroclor 1268		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Total PCBs		2	2	3	3	2	1	0.2699 J	5.88 J	0.580 J	0.742 J	0.0510 U	0.0673 J	0.0509 U	0.191 J	0.0531 U	0.425 J	0.199 J	0.429 J	0.974 J	0.0522 U	0.142 J	0.0648 U	0.0522 U	0.0521 U	0.0532 U	0.0503 U				
Metals, total		Arsenic	20	20	20	20	20	NA	NA	32.0	NA	22.8	4.33	NA	2.87	2.76 U	NA	5.87	11.5	8.08	NA	4.10	NA	8.23	4.20	NA	8.68	4.66			
	Barium	1000	1000	3000	3000	1000	NA	NA	432	NA	343	12.8	NA	15.2	24.8	NA	97.8	398	438	NA	9.74	NA	358	11.9	NA	47.3	10.6				
	Beryllium	100	100	200	200	100	NA	NA	0.31 U	NA	0.57	0.28 U	NA	0.27 U	0.31	NA	0.29 U	0.30 U	0.29 U	NA	0.28 U	NA	0.78	0.28 U	NA	0.29 U	0.27 U				
	Cadmium	2	2	30	30	2	NA	NA	2.44	NA	1.30	0.28 U	NA	0.27 U	0.28 U	NA	1.15	1.26	1.74	NA	0.28 U	NA	0.37	0.28 U	NA	0.29 U	0.27 U				
	Chromium	30	30	200	200	30	NA	NA	41.9	NA	28.1	9.83	NA	4.83	4.61	NA	14.3	122	45.5	NA	10.8	NA	14.8	8.17	NA	9.06	13.6				
	Lead	300	300	300	300	300	NA	NA	846	NA	801	4.34	NA	4.50	31.1	NA	258	1.510	460	NA	3.87	NA	219	4.39	NA	157	2.64				
	Nickel	20	20	700	700	20	NA	NA	33.6	NA	30.8	6.31	NA	3.16	2.60	NA	7.75	25.5	13.7	NA	4.44	NA	9.90	3.99	NA	4.53	4.96				
	Mercury	20	20	30	30	20	NA	NA	0.823	NA	0.258	0.025 U	NA	0.013 U	0.013	NA	0.437	0.651	0.688	NA	0.016 U	NA	0.025 U	0.014 U	NA	0.127	0.013 U				
	Selenium	400	400	800	800	400	NA	NA	6.16 U	NA	5.83 U	5.43 U	NA	5.23 U	5.52 U	NA	5.66 U	5.98 U	5.78 U	NA	5.46 U	NA	6.58 U	5.56 U	NA	5.79 U	5.33 U				
	Silver	100	100	200	200	100	NA	NA	7.37	NA	8.88	1.04	NA	0.62	0.56 U	NA	1.43	2.87	0.58 U	NA	0.80	NA	0.74	1.09	NA	0.79	0.80				
	Thallium	8	8	60	60	8	NA	NA	3.70 U	NA	3.50 U	3.26 U	NA	3.14 U	3.31 U	NA	3.40 U	3.59 U	3.47 U	NA	3.28 U	NA	3.95 U	3.34 U	NA	3.48 U	3.20 U				
	Vanadium	600	600	1000	1000	600	NA	NA	24.0	NA	18.8	13.4	NA	8.15	6.04	NA	13.8	16.6	11.8	NA	10.4	NA	23.0	12.6	NA	17.5	10.5				
	Zinc	2500	2500	3000	3000	2500	NA	NA	759	NA	367	23.5	NA	13.2	37.1	NA	181	404	310	NA	12.3	NA	146	14.8	NA	44.2	14.2				

Notes:
(1) Sample identifications in parenthesis denotes identification utilized on figures.
All units in mg/kg unless otherwise specified.
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
mg/L - milligrams per liter.
NA - Sample not analyzed for the listed analyte.
ND - Not detected; quantitation limit not available in historical data.

TABLE 2
Summary of Analytical Detected Results for Soil Samples - 102 Greenwood Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						SB-193			SB-194			SB-195				SB-196			
		Sample Date:						6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/9/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008	
		Sample Depth (ft.):						1	4	10	1	4	9	1	7.5	9	11	1	3.5	8	
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA														
PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	0.211 U	0.181 U	0.359 U	0.208 U	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Acenaphthylene	600	10	600	10	1	NA	NA	0.244	0.181 U	0.359 U	0.279	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Anthracene	1000	1000	3000	3000	1000	NA	NA	0.211 U	0.181 U	0.359 U	0.413	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	0.211 U	0.181 U	0.359 U	0.757	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	0.211 U	0.181 U	0.359 U	0.467	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	0.211 U	0.181 U	0.359 U	0.800	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Benzo(g,h,i)perylene	1000	1000	3000	3000	1000	NA	NA	0.211 U	0.181 U	0.359 U	0.291	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	0.211 U	0.181 U	0.359 U	0.278	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Chrysene	70	70	400	400	70	NA	NA	0.211 U	0.181 U	0.359 U	0.853	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Dibenz(a,h)anthracene	0.7	0.7	4	4	0.7	NA	NA	0.211 U	0.181 U	0.359 U	0.208 U	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Fluoranthene	1000	1000	3000	3000	1000	NA	NA	0.211 U	0.181 U	0.359 U	2.30	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Fluorene	1000	1000	3000	3000	1000	NA	NA	0.211 U	0.181 U	0.359 U	0.208 U	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	0.211 U	0.181 U	0.359 U	0.333	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	0.211 U	0.181 U	0.359 U	0.748	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Naphthalene	40	500	40	1000	4	NA	NA	0.525	0.181 U	0.359 U	1.21	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Phenanthrene	500	500	1000	1000	10	NA	NA	0.260	0.181 U	0.359 U	2.00	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Pyrene	1000	1000	3000	3000	1000	NA	NA	0.211 U	0.181 U	0.359 U	1.52	0.182 U	NA	0.233 U	0.185 U	NA	NA	0.172 U	NA	
	Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	0.0535 U	0.0624 U	0.0528 U	0.108 U	0.576 U	0.0532 U	0.0558 U	0.138 U	0.0546 U	0.0515 U	0.0515 U	0.0507 U	0.0500 U
Aroclor 1232		2	2	3	3	2	1	0.0535 U	0.0624 U	0.0528 U	0.108 U	0.576 U	0.0532 U	0.0558 U	0.138 U	0.0546 U	0.0515 U	0.0515 U	0.0507 U	0.0500 U	
Aroclor 1016/1242		2	2	3	3	2	1	0.0535 U	0.0624 U	0.0528 U	0.108 U	0.576 U	0.0532 U	0.0558 U	0.138 U	0.0546 U	0.0515 U	0.0515 U	0.0507 U	0.0500 U	
Aroclor 1248		2	2	3	3	2	1	0.0535 U	0.0624 U	0.0528 U	0.108 U	0.576 U	0.0532 U	0.0558 U	0.138 U	0.0546 U	0.0515 U	0.0515 U	0.0507 U	0.0500 U	
Aroclor 1254		2	2	3	3	2	1	0.215 J	0.299 J	0.0528 U	3.02 J	0.576 U	0.0532 U	2.45 J	4.34 J	0.141 J	0.0515 U	0.284 J	0.191 J	0.204 J	
Aroclor 1260		2	2	3	3	2	1	0.0863 J	0.0624 U	0.0528 U	0.108 U	26.6 J	0.0532 U	0.0558 U	0.138 U	0.0546 U	0.0515 U	0.0515 U	0.0507 U	0.0500 U	
Aroclor 1262		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor 1268		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total PCBs		2	2	3	3	2	1	0.3013 J	0.299 J	0.0528 U	3.02 J	26.6 J	0.0532 U	2.45 J	4.34 J	0.141 J	0.0515 U	0.284 J	0.191 J	0.204 J	
Metals, total		Arsenic	20	20	20	20	20	NA	NA	14.2	3.72	13.9	11.3	2.73 U	NA	7.70	2.77 U	NA	NA	2.58 U	NA
	Barium	1000	1000	3000	3000	1000	NA	NA	343	19.4	177	227	17.3	NA	183	15.2	NA	NA	12.0	NA	
	Beryllium	100	100	200	200	100	NA	NA	0.93	0.28 U	0.38	0.63	0.28 U	NA	0.67	0.28 U	NA	NA	0.26 U	NA	
	Cadmium	2	2	30	30	2	NA	NA	0.45	0.28 U	1.52	2.55	0.28 U	NA	1.41	0.28 U	NA	NA	0.26 U	NA	
	Chromium	30	30	200	200	30	NA	NA	13.0	8.19	19.6	27.0	6.54	NA	9.73	7.40	NA	NA	2.93	NA	
	Lead	300	300	300	300	300	NA	NA	161	3.90	1.030	559	5.02	NA	982	4.43	NA	NA	4.78	NA	
	Nickel	20	20	700	700	20	NA	NA	17.8	4.07	13.8	33.8	3.12	NA	11.7	2.84	NA	NA	2.49	NA	
	Mercury	20	20	30	30	20	NA	NA	0.079	0.020 U	1.00	0.161	0.024 U	NA	0.201	0.017 U	NA	NA	0.019 U	NA	
	Selenium	400	400	800	800	400	NA	NA	6.33 U	5.43 U	5.39 U	6.23 U	5.45 U	NA	6.98 U	5.54 U	NA	NA	5.15 U	NA	
	Silver	100	100	200	200	100	NA	NA	1.42	0.77	3.21	9.48	0.55 U	NA	0.70 U	0.56 U	NA	NA	0.52 U	NA	
	Thallium	8	8	60	60	8	NA	NA	3.80 U	4.10	3.23 U	3.74 U	3.27 U	NA	4.19 U	3.33 U	NA	NA	3.09 U	NA	
	Vanadium	600	600	1000	1000	600	NA	NA	27.9	9.65	16.7	20.7	7.18	NA	18.4	13.4	NA	NA	5.15 U	NA	
	Zinc	2500	2500	3000	3000	2500	NA	NA	209	15.9	336	182	18.6	NA	367	10.1	NA	NA	12.6	NA	

Notes:
(1) Sample identifications in parenthesis denotes identification utilized on figures.
All units in mg/kg unless otherwise specified.
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
mg/L - milligrams per liter.
NA - Sample not analyzed for the listed analyte.
ND - Not detected; quantitation limit not available in historical data.
U - Compound was not detected at specified quantitation limit.
Values in Bold indicate the compound was detected.

Values shown in bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.

Values shown in bold and outlined exceed TSCA standard.

PAHs - Polynuclear Aromatic Hydrocarbons.

PCBs - Polychlorinated Biphenyls.

RC - Reportable Concentration.

TSCA - Toxic Substances Control Act criteria.

Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.

¹ = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.

* - Depth not available in historical report.

TABLE 4
Summary of Analytical Detected Results for Soil Samples - 98 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						98 Comp 1 (98-RUG-COM-1-S,M, and D)			98 Comp 2 (98-RUG-COM-2-S,M, and D)			98 Comp 3 (98-RUG-COM-3-S, and M)		A2	A3			A4		
		Sample Date:						6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	
		Sample Depth (ft.):						0-3	3-6	6-native	0-3	3-6	6-native	0-3	3-6	0.5-3	0.5-3	3-7	7-10	0.5-3	3-6	6-8
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA	(S)	(M)	(D)	(S)	(M)	(D)	(S)	(M)							
PAHs / Dibenzofuran (mg/kg)		1000	1000	3000	3000	4	NA	0.28 U	0.32 U	0.3 U	0.35 U	0.29 U	0.33 U	0.29 U	0.8	NA	NA	NA	NA	NA	NA	NA
Acenaphthene		600	10	600	10	1	NA	0.28 U	1	0.59	0.35 U	0.29 U	0.33 U	0.41	0.38	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene		1000	1000	3000	3000	1000	NA	0.86	2.6	1.6	0.44	0.29 U	0.57	1.2	2.4	NA	NA	NA	NA	NA	NA	NA
Anthracene		7	7	40	40	7	NA	1.7	5.1	3.3	1.1	0.49	1.1	1.8	6.5	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		2	2	4	4	2	NA	1.4	5.3	3.2	1.1	0.52	1.1	1.5	6.1	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		7	7	40	40	7	NA	1.9	7.1	5	1.6	0.74	2.1	2	9	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene		1000	1000	3000	3000	1000	NA	0.73	2	1.2	0.42	0.31	0.66	0.55	2.1	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene		70	70	400	400	70	NA	0.65	2.3	1.3	0.49	0.29 U	0.57	0.65	2.9	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		70	70	400	400	70	NA	1.4	3.9	2.6	0.93	0.45	0.88	1.5	5.4	NA	NA	NA	NA	NA	NA	NA
Chrysene		0.7	0.7	4	4	0.7	NA	0.28 U	0.7	0.46	0.35 U	0.29 U	0.33 U	0.29 U	0.88	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene		1000	1000	3000	3000	1000	NA	3.9	14	8.8	2.2	1.1	2.1	3.5	15	NA	NA	NA	NA	NA	NA	NA
Fluoranthene		1000	1000	3000	3000	1000	NA	0.34	1	0.64	0.35 U	0.29 U	0.33 U	0.29 U	0.91	NA	NA	NA	NA	NA	NA	NA
Fluorene		7	7	40	40	7	NA	0.85	2.5	1.5	0.51	0.29 U	0.72	0.66	2.5	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		80	300	80	500	0.7	NA	0.28 U	0.32 U	0.3 U	0.35 U	0.29 U	0.33 U	0.29 U	0.29 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene		40	500	40	1000	4	NA	0.28 U	0.32 U	0.3 U	0.35 U	0.29 U	0.33 U	0.29 U	0.29 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene		500	500	1000	1000	10	NA	3.4	12	7.6	1.4	0.84	1.9	2.5	10	NA	NA	NA	NA	NA	NA	NA
Phenanthrene		1000	1000	3000	3000	1000	NA	3.1	11	7	1.9	0.96	1.7	3.7	12	NA	NA	NA	NA	NA	NA	NA
Pyrene		NS	NS	NS	NS	100	NA	0.28 U	0.55	0.37	0.35 U	0.29 U	0.33 U	0.29 U	0.39	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran																						
PCBs (mg/kg)		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Aroclor 1221		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Aroclor 1232		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Aroclor 1016/1242		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Aroclor 1248		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Aroclor 1254		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	1.09	0.398	13.3	4.28	1.2	0.865
Aroclor 1260		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Aroclor 1262		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.593	0.114 U	0.134 U	0.153 U	0.406	0.123 U
Aroclor 1268		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.114 U	0.12 U	0.114 U	0.134 U	0.153 U	0.101 U	0.123 U
Total PCBs		2	2	3	3	2	1	NA	NA	NA	NA	NA	NA	NA	NA	0.235	1.683	0.398	13.3	4.28	1.606	0.865
Metals, total		20	20	20	20	20	NA	3.86	22	23	34	16	16	5.52	13	NA	NA	NA	NA	NA	NA	NA
Arsenic		1000	1000	3000	3000	1000	NA	237	234	325	440	226	338	124	441	NA	NA	NA	NA	NA	NA	NA
Barium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium		2	2	30	30	2	NA	1.07	6.67	4.47	5.24	2.95	5.13	1.35	3.52	NA	NA	NA	NA	NA	NA	NA
Cadmium		30	30	200	200	30	NA	12	31	54	60	23	28	20	24	NA	NA	NA	NA	NA	NA	NA
Chromium		300	300	300	300	300	NA	404	566	2460	646	857	1190	225	1990	NA	NA	NA	NA	NA	NA	NA
Lead		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel		20	20	30	30	20	NA	0.281	0.311	1.44	1.28	0.642	1.02	0.315	2.7	NA	NA	NA	NA	NA	NA	NA
Mercury		400	400	800	800	400	NA	0.71 U	0.82 U	0.74 U	0.94 U	0.76 U	0.9 U	0.79 U	0.77 U	NA	NA	NA	NA	NA	NA	NA
Selenium		100	100	200	200	100	NA	0.36	0.58	0.52	0.66	0.46	0.81	0.39 U	2.07	NA	NA	NA	NA	NA	NA	NA
Silver		8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium		600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc																						

Notes:
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 PAHs - Polynuclear Aromatic Hydrocarbons.
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 TSCA - Toxic Substances Control Act criteria.
 Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.
 1 = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.
 * - Depth not available in historical report.

TABLE 4
Summary of Analytical Detected Results for Soil Samples - 98 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						A5.75			A5				B2	B5.75			C1.3	C2		C5.25			
		Sample Date:						(A5_75)								(B5_75)			(C1_3)			(C5_25)			
		Sample Depth (ft.):						6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA	0.5-3	3-7	7-10	0.5-3	3-7	3-7	7-10	1-5	0.5-3	3-7	7-10	0.5-3	3-6	3-6	6/20/2006	6/20/2006	6/20/2006	6/20/2006
PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acenaphthylene	600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Anthracene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(g,h,i)perylene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chrysene	70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenz(a,h)anthracene	0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoranthene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluorene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phenanthrene	500	500	1000	1000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyrene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	0.13 U	0.136 U	0.138 U	0.116 U	NA	0.122 U	0.148 U	0.109 U	0.123 U	0.127 U	0.12 U	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Aroclor 1232	2	2	3	3	2	1	0.13 U	0.136 U	0.138 U	0.116 U	NA	0.122 U	0.148 U	0.109 U	0.123 U	0.127 U	0.12 U	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Aroclor 1016/1242	2	2	3	3	2	1	0.13 U	0.136 U	0.138 U	0.116 U	NA	0.122 U	0.148 U	0.109 U	0.123 U	0.127 U	0.12 U	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Aroclor 1248	2	2	3	3	2	1	0.13 U	0.136 U	0.138 U	0.116 U	NA	0.122 U	0.148 U	0.109 U	0.123 U	0.127 U	0.12 U	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Aroclor 1254	2	2	3	3	2	1	1.08	0.136 U	0.138 U	1.21	NA	0.122 U	0.165	0.109 U	2.26	0.127 U	0.12 U	0.109 U	NA	0.101 U	1.39	0.121 U	0.687	
	Aroclor 1260	2	2	3	3	2	1	0.13 U	0.187	0.288	0.116 U	NA	1.13	0.148 U	0.109 U	0.123 U	0.616	0.992	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Aroclor 1262	2	2	3	3	2	1	0.288	0.136 U	0.138 U	0.116 U	NA	0.122 U	0.148 U	0.109 U	0.772	0.127 U	0.12 U	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Aroclor 1268	2	2	3	3	2	1	0.13 U	0.136 U	0.138 U	0.116 U	NA	0.122 U	0.148 U	0.109 U	0.123 U	0.127 U	0.12 U	0.109 U	NA	0.101 U	0.124 U	0.121 U	0.133 U	
	Total PCBs	2	2	3	3	2	1	1.368	0.187	0.288	1.21	NA	1.13	0.165	0.109 U	3.032	0.616	0.992	0.109 U	0.752	0.752	1.39	0.515	0.687	
	Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium		2	2	30	30	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium		30	30	200	200	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead		300	300	300	300	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury		20	20	30	30	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Selenium		400	400	800	800	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Silver		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Thallium		8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium		600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zinc		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:
(1) Sample identifications in parenthesis denotes identification utilized on figures.
All units in mg/kg unless otherwise specified.
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
mg/L - milligrams per liter.
NA - Sample not analyzed for the listed analyte.
ND - Not detected; quantitation limit not available in historical data.
U - Compound was not detected at specified quantitation limit.
Values in Bold indicate the compound was detected.
Values shown in bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.
Values shown in bold and outlined exceed TSCA standard.
PAHs - Polynuclear Aromatic Hydrocarbons.
PCBs - Polychlorinated Biphenyls.
RC - Reportable Concentration.
TSCA - Toxic Substances Control Act criteria.
Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.
¹ = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.
* - Depth not available in historical report.

TABLE 4
Summary of Analytical Detected Results for Soil Samples - 98 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						C5.75 (C5_75)		D1.3 (D1_3)	D5.25 D5.25			K1.3 (K1_3)		K5.5 (K5_5)		L1.3 (L1_3)		M1.3 (M1_3)	
		Sample Date:						6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006	6/20/2006		
		Sample Depth (ft.):						3-5	5-8	0.5-3	0.5-3	3-7	7-10	0.5-3	7.5-8	0.5-3	5-7	1-4	9-10	3-4	7.5-8
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA														
PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acenaphthylene	600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Anthracene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(g,h,i)perylene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chrysene	70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenz(a,h)anthracene	0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoranthene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluorene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phenanthrene	500	500	1000	1000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyrene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	0.117 U	0.12 U	0.107 U	0.124 U	0.138 U	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Aroclor 1232	2	2	3	3	2	1	0.117 U	0.12 U	0.107 U	0.124 U	0.138 U	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Aroclor 1016/1242	2	2	3	3	2	1	0.117 U	0.12 U	0.107 U	0.124 U	0.138 U	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Aroclor 1248	2	2	3	3	2	1	0.117 U	0.12 U	0.107 U	0.124 U	0.138 U	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Aroclor 1254	2	2	3	3	2	1	0.117 U	0.12 U	0.2	3.29	0.138 U	0.54	0.1 U	5.15	0.117 U	0.117 U	0.141	0.552	0.179	12.4
	Aroclor 1260	2	2	3	3	2	1	0.126	0.158	0.107 U	0.124 U	0.145	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Aroclor 1262	2	2	3	3	2	1	0.117 U	0.12 U	0.107 U	0.784	0.138 U	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Aroclor 1268	2	2	3	3	2	1	0.117 U	0.12 U	0.107 U	0.124 U	0.138 U	0.137 U	0.1 U	0.13 U	0.117 U	0.117 U	0.108 U	0.111 U	0.108 U	0.113 U
	Total PCBs	2	2	3	3	2	1	0.126	0.158	0.2	4.074	0.145	0.54	0.1 U	5.15	0.117 U	0.117 U	0.141	0.552	0.179	12.4
Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Barium	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Beryllium	100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Cadmium	2	2	30	30	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chromium	30	30	200	200	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lead	300	300	300	300	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nickel	20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mercury	20	20	30	30	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Selenium	400	400	800	800	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Silver	100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Thallium	8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Vanadium	600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

(1) Sample identifications in parenthesis denotes identification utilized on figures.

All units in mg/kg unless otherwise specified.

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter

NA - Sample not analyzed for the listed analyte.

ND - Not detected; quantitation limit not available in historical data.

U - Compound was not detected at specified quantitation limit.

Values in Bold indicate the compound was detected.

Values shown in Bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.

Values shown in bold and outlined exceed TSCA standard.

PAHs - Polynuclear Aromatic Hydrocarbons.

PCBs - Polychlorinated Biphenyls.

RC - Reportable Concentration.

TSCA - Toxic Substances Control Act criteria.

Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.

1 = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.

* - Depth not available in historical report.

TABLE 5
Summary of Analytical Detected Results for Soil Samples - 108 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						108 Comp 1 (108-RUG-COM-1-S.M. and D)			108 Comp 2 (108-RUG-COM-2-S.M. and D)			108 Comp 3 (108-RUG-COM-3-S.M. and D)			108 Comp 4 (108-RUG-COM-4-S.M. and D)			108 Comp 5 (108-RUG-COM-5-S.M. and D)			108 Ruggles Front (108-RUG-FRONT)		108 Ruggles Front Comp (108-RUG-F-COMP)		108 Ruggles Rear (108-RUG-REAR)		108 Ruggles Rear Comp (108-RUG-REAR)							
		Sample Date:						12/20/2005			12/20/2005			12/20/2005			12/20/2005			12/20/2005			2/6/2006		2/6/2006		2/6/2006		2/6/2006							
		Sample Depth (ft.):						0-3			0-3			0-3			0-3			0-3			0-0.5		0-25		0-0.5		0-0.5							
		RC S-1 TSCA						(S)			(M)			(D)			(S)			(M)			(D)			0-0.5		0-0.5		0-0.5		Field Dup				
VOCs	Trichloroethene	2	90	2	700	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Toluene	500	500	1000	1000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Tetrachloroethene	10	30	10	200	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Chlorobenzene	3	100	3	100	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Ethylbenzene	500	500	1000	1000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	m & p-Xylene	300	500	300	1000	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	0.058 U	2.3	0.37	1.4	NA	0.057 U	0.61 U	0.062 U	0.06 U	0.071 U	0.063 U	0.06 U	0.09 U	NA	0.9	0.16	NA	0.380	0.073 U	NA	NA	NA	NA	NA	0.061 U	NA	0.061 U	
Acenaphthylene		600	10	600	10	1	NA	0.13	0.58 U	0.086 U	0.6 U	NA	0.069	0.61 U	0.084	0.07	0.11	0.083	0.06 U	0.09 U	NA	3.2	0.69	NA	0.130	0.073 U	NA	NA	NA	NA	NA	0.180	NA	0.180		
Anthracene		1000	1000	3000	3000	1000	NA	0.17	6.5	0.67	4.1	NA	0.098	0.61 U	0.17	0.17	0.12	0.12	0.08	0.09 U	NA	6	0.93	NA	0.670	0.140	NA	NA	NA	NA	NA	0.610	NA	0.610		
Benzo(a)anthracene		7	7	40	40	7	NA	0.63	12	1.2	7.3	NA	0.37	0.61 U	0.43	0.41	0.34	0.37	0.23	0.09 U	NA	7.0	2.1	NA	1.80	0.440	NA	NA	NA	NA	0.500	NA	0.500			
Benzo(a)pyrene		2	2	4	4	2	NA	0.66	6.9	1	3.7	NA	0.35	0.61 U	0.49	0.44	0.32	0.38	0.24	0.09 U	NA	7	1.8	NA	1.30	0.390	NA	NA	NA	NA	0.440	NA	0.440			
Benzo(b)fluoranthene		7	7	40	40	7	NA	0.95	9.4	1.6	5.6	NA	0.53	0.61 U	0.59	0.49	0.43	0.57	0.3	0.12	NA	9.4	2.7	NA	1.30	0.350	NA	NA	NA	NA	0.350	NA	0.350			
Benzo(k)fluoranthene		1000	1000	3000	3000	1000	NA	0.25	3.1	0.38	1.5	NA	0.12	0.61 U	0.37	0.32	0.29	0.13	0.13	0.09 U	NA	2	0.54	NA	0.870	0.230	NA	NA	NA	NA	0.390	NA	0.390			
Benzo(e)fluoranthene		70	70	400	400	70	NA	0.17	2.7	0.42	1.6	NA	0.14	0.61 U	0.23	0.24	0.16	0.15	0.079	0.09 U	NA	2.7	0.66	NA	1.00	0.290	NA	NA	NA	NA	0.290	NA	0.290			
Chrysene		70	70	400	400	70	NA	0.54	9.3	0.84	5.9	NA	0.32	0.61 U	0.38	0.35	0.28	0.31	0.21	0.09 U	NA	5.6	1.4	NA	1.60	0.400	NA	NA	NA	NA	0.490	NA	0.490			
Dibenz(a,h)anthracene		0.7	0.7	4	4	0.7	NA	0.063	0.9	0.13	0.6 U	NA	0.057 U	0.61 U	0.12	0.097	0.11	0.063 U	0.06 U	0.09 U	NA	0.63 U	0.22	NA	0.290	0.073 U	NA	NA	NA	NA	0.096	NA	0.096			
Fluoranthene		1000	1000	3000	3000	1000	NA	1.2	32	2.4	23	NA	0.82	1.1	1.1	0.92	0.6	0.89	0.58	0.13	NA	23	3.5	NA	5.60	0.900	NA	NA	NA	NA	1.5	NA	1.5			
Fluorene		1000	1000	3000	3000	1000	NA	0.058 U	2.4	0.43	1.3	NA	0.057 U	0.61 U	0.062 U	0.06 U	0.071 U	0.063 U	0.06 U	0.09 U	NA	2.9	0.3	NA	0.390	0.073 U	NA	NA	NA	NA	0.064	NA	0.064			
Indeno(1,2,3-cd)pyrene		7	7	40	40	7	NA	0.28	3.5	0.46	1.7	NA	0.14	0.61 U	0.42	0.33	0.32	0.15	0.14	0.09 U	NA	2.5	0.72	NA	0.800	0.220	NA	NA	NA	NA	0.300	NA	0.300			
2-Methylnaphthalene		80	300	80	500	0.7	NA	0.058 U	0.58 U	0.19	0.6 U	NA	0.057 U	0.61 U	0.062 U	0.06 U	0.071 U	0.063 U	0.06 U	0.09 U	NA	0.63 U	0.092 U	NA	0.067	0.073 U	NA	NA	NA	NA	0.061 U	NA	0.061 U			
Naphthalene		40	500	40	1000	4	NA	0.058 U	1.3	0.65	0.6 U	NA	0.057 U	0.61 U	0.062 U	0.06 U	0.071 U	0.063 U	0.06 U	0.09 U	NA	1.1	0.092 U	NA	0.210	0.073 U	NA	NA	NA	NA	0.061 U	NA	0.061 U			
Phenanthrene		500	500	1000	1000	10	NA	0.72	29	2.7	17	NA	0.4	1.1	0.69	0.56	0.24	0.49	0.41	0.09 U	NA	25	1.4	NA	4.60	0.520	NA	NA	NA	NA	0.840	NA	0.840			
Pyrene		1000	1000	3000	3000	1000	NA	1.1	20	1.7	14	NA	0.68	0.68	1	0.91	0.57	0.64	0.46	0.11	NA	14	2.2	NA	5.00	1.10	NA	NA	NA	NA	1.3	NA	1.3			
Dibenzofuran		NS	NS	NS	NS	100	NA	ND	1.5	0.31	0.31	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	2.4	0.19	NA	0.200	0.073 U	NA	NA	NA	NA	0.061 U	NA	0.061 U			
PCBs (mg/kg)		Aroclor 1221	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	0.014 U	0.012 U	ND	NA	NA	NA	NA	NA		
		Aroclor 1232	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U	NA	0.027 U	0.024 U	ND	NA	NA	NA	NA	NA		
	Aroclor 1016/1242	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	0.014 U	0.012 U	ND	NA	NA	NA	NA	NA			
	Aroclor 1248	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	0.014 U	0.012 U	ND	NA	NA	NA	NA	NA			
	Aroclor 1254	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.089	NA	0.065	0.093	0.135	NA	NA	NA	NA	NA			
	Aroclor 1260	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	0.093	0.012 U	0.123	NA	NA	NA	NA	NA			
	Aroclor 1262	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.066	NA	0.014 U	0.07	ND	NA	NA	NA	NA	NA			
	Aroclor 1268	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 U	NA	0.014 U	0.012 U	ND	NA	NA	NA	NA	NA			
	Total PCBs	2	2	3	3	2	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.155	NA	0.158	0.163	0.258	NA	NA	NA	NA	NA	NA		
Metals, total	Arsenic	20	20	20	20	20	NA	2.78	3.17	6.06	4.03	5.85	3.74	57.8	5.45	9.91	6.59	NA	7.69	22	7.23	31	14	NA	2.64	3.14	NA	NA	NA	NA	3.08	NA	3.08			
	Barium	1000	1000	3000	3000	1000	NA	88	81	451	145	194	125	330	486	446	2.09	NA	181	366	156	309	289	NA	68	75	NA	NA	NA	NA	57	NA	57			
	Beryllium	100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Cadmium	2	2	30	30	2	NA	0.83	1.1	6.28	1.32	2.04	1.34	8.95	1.07	1.92	2.9	NA	1.28	3.77	1.58	6.6	4.25	NA	0.78	0.82	NA	NA	NA	NA	0.85	NA	0.85			
	Chromium	30	30	200	200	30	NA	11	12	14	12.9	19	12.8	20	13	15	24	NA	8.98	23	17	181	62	NA	11	13	NA	NA	NA	NA	9.6	NA	9.6			
	Lead	300	300	300	300	300	NA	316	251	408	395	533	424	3690	415	735	439	NA	309	606	569	1480	1960	NA	165	193	NA	NA	NA	NA	205	NA	205			
	Nickel	20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Mercury	20	20	30	30	20	NA	0.334	0.372	0.22	0.342	0.423	109	0.161	0.539	0.505	0.881	NA	0.217	0.68	0.733	0.346	0.474	NA	0.181	0.192	NA	NA	NA	NA	0.145	NA	0.145			
	Selenium	400	400	800	800	400	NA	0.7	0.69 U	1.54	0.77 U	1.58	0.67 U	2.01	0.77 U	1.32	NA	0.91	5.03	0.83 U	1.78	2.79	NA	0.22	0.29 U	NA	NA	NA	NA	NA	0.8	NA	0.8			
	Silver	100	100	200	200	100	NA	0.35 U	0.34 U	0.55 U	0.39 U	0.46 U	2.87	0.39 U	0.38 U	0.36 U	0.44 U	NA	1.13	0.57 U	0.42 U	0.42 U	0.61 U	NA	0.11 U	0.										

TABLE 5
Summary of Analytical Detected Results for Soil Samples - 108 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						D,75-8			D,75-9			D,75-10	D,75-10,75	D6,25		D7				D8		D9			
		Sample Date:						D,75-8			D,75-9			D,75-10	D,75-10,75	D6,25		D7				D8		D9			
		Sample Depth (ft.):						D,75-8			D,75-9			D,75-10	D,75-10,75	D6,25		D7				D8		D9			
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005	12/20/2005
VOCs	Trichloroethene	2	90	2	700	0.3	NA	0.065 U	0.081 U	0.08 U	NA	NA	NA	NA	NA	NA	NA	0.059 U	0.062 U	0.13 U	NA	NA	NA	NA	NA	NA	
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	0.32 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA	0.29 U	0.31 U	0.64 U	NA	NA	NA	NA	NA	NA	
	Toluene	500	500	1000	1000	30	NA	0.065 U	0.081 U	0.08 U	NA	NA	NA	NA	NA	NA	NA	0.059 U	0.062 U	0.13 U	NA	NA	NA	NA	NA	NA	
	Tetrachloroethene	10	30	10	200	1	NA	0.065 U	0.14	0.25	NA	NA	NA	NA	NA	NA	NA	0.059 U	0.062 U	0.13 U	NA	NA	NA	NA	NA	NA	
	Chlorobenzene	3	100	3	100	1	NA	0.065 U	0.081 U	0.08 U	NA	NA	NA	NA	NA	NA	NA	0.059 U	0.062 U	0.13 U	NA	NA	NA	NA	NA	NA	
	Ethylbenzene	500	500	1000	1000	40	NA	0.065 U	0.081 U	0.08 U	NA	NA	NA	NA	NA	NA	NA	0.059 U	0.062 U	0.13 U	NA	NA	NA	NA	NA	NA	
	m & p-Xylene	300	500	300	1000	300	NA	0.13 U	0.16 U	0.16 U	NA	NA	NA	NA	NA	NA	NA	0.12 U	0.12 U	0.26 U	NA	NA	NA	NA	NA	NA	
	Naphthalene	40	500	40	1000	4	NA	0.065 U	0.081 U	0.08 U	NA	NA	NA	NA	NA	NA	NA	0.059 U	0.062 U	0.13 U	NA	NA	NA	NA	NA	NA	
	PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Acenaphthylene	600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene		2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene		0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene		80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene		40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene		500	500	1000	1000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenzofuran		NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBs (mg/kg)		Aroclor 1221	2	2	3	3	2	1	0.235 U	0.275 U	0.28 U	0.219 U	ND	0.237 U	0.309 U	0.254 U	0.244 U	0.315 U	0.253 U	0.249 U	0.409 U	0.278 U	0.247 U	0.274 U	0.217 U	0.273 U	
	Aroclor 1232	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Aroclor 1016/1242	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Aroclor 1248	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Aroclor 1254	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Aroclor 1260	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Aroclor 1262	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Aroclor 1268	2	2	3	3	2	1	0.118 U	0.14 U	0.14 U	0.109 U	ND	0.119 U	0.154 U	0.107 U	0.122 U	0.158 U	0.126 U	0.125 U	0.204 U	0.139 U	0.123 U	0.137 U	0.108 U	0.137 U		
	Total PCBs	2	2	3	3	2	1	0.244	0.26	0.28 U	0.219 U	0.11	0.308	0.309 U	0.254 U	0.216	0.315 U	0.277	0.593	0.409 U	0.278 U	0.247 U	0.274 U	0.43	0.273 U		
	Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Cadmium		2	2	30	30	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Chromium		30	30	200	200	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Lead		300	300	300	300	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Mercury		20	20	30	30	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Selenium		400	400	800	800	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Silver		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Thallium		8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Vanadium		600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Zinc		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Metals, TCLP (mg/L)		Lead, TCLP	NS	NS	NS	NS	NS	5.0 ⁽⁵⁾	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		Total Petroleum Hydrocarbons (mg/kg)	1000	1000	3000	3000	1000	NA	58	227	28	NA	NA	NA	NA	NA	NA	NA	28	12	41	NA	NA	NA	NA	NA	
Gasoline Range Organics (mg/kg)	Diesel Range Organics	1000	1000	3000	3000	1000	NA	8.2 U	13.4	12.6	NA	NA	NA	NA	NA	NA	NA	9.7	9.2	19.1	NA	NA	NA	NA	NA		
	Gasoline Range Organics	1000	1000	3000	3000	1000	NA	8.2 U	13.4	12.6	NA	NA	NA	NA	NA	NA	NA	9.7	9.2	19.1	NA	NA	NA	NA	NA		

Notes:
 (1) Sample identifications in parenthesis denotes identification utilized on figures.
 All units in mg/kg unless otherwise specified.
 mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
 mg/L - milligrams per liter.
 NA - Sample not analyzed for the listed analyte.
 ND - Not detected; quantitation limit not available in historical data.
 U - Compound was not detected at specified quantitation limit.
 Values in Bold indicate the compound

TABLE 5
Summary of Analytical Detected Results for Soil Samples - 108 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						D10			D10.75
		Sample Date:						12/20/2005	12/20/2005	12/20/2005	12/20/2005
		Sample Depth (ft.):						1.5-3	3-6	6-7.5	3-4
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA				
VOCs	Trichloroethene	2	90	2	700	0.3	NA	0.071 U	0.029 U	0.052 U	NA
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	0.35 U	0.15 U	0.26 U	NA
	Toluene	500	500	1000	1000	30	NA	0.071 U	0.029 U	0.052 U	NA
	Tetrachloroethene	10	30	10	200	1	NA	0.071 U	0.029 U	0.052 U	NA
	Chlorobenzene	3	100	3	100	1	NA	0.071 U	0.029 U	0.052 U	NA
	Ethylbenzene	500	500	1000	1000	40	NA	0.071 U	0.029 U	0.052 U	NA
	m & p-Xylene	300	500	300	1000	300	NA	0.14 U	0.058 U	0.1 U	NA
	Naphthalene	40	500	40	1000	4	NA	0.071 U	0.029 U	0.052 U	NA
PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA
	Acenaphthylene	600	10	600	10	1	NA	NA	NA	NA	NA
	Anthracene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA
	Benzo(a)anthracene	7	7	40	40	7	NA	NA	NA	NA	NA
	Benzo(a)pyrene	2	2	4	4	2	NA	NA	NA	NA	NA
	Benzo(b)fluoranthene	7	7	40	40	7	NA	NA	NA	NA	NA
	Benzo(g,h,i)perylene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA
	Benzo(k)fluoranthene	70	70	400	400	70	NA	NA	NA	NA	NA
	Chrysene	70	70	400	400	70	NA	NA	NA	NA	NA
	Dibenz(a,h)anthracene	0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA
	Fluoranthene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA
	Fluorene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA
	Indeno(1,2,3-cd)pyrene	7	7	40	40	7	NA	NA	NA	NA	NA
	2-Methylnaphthalene	80	300	80	500	0.7	NA	NA	NA	NA	NA
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	NA
	Phenanthrene	500	500	1000	1000	10	NA	NA	NA	NA	NA
	Pyrene	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA
Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	0.243 U	0.195 U	0.212 U	0.27 U
	Aroclor 1232	2	2	3	3	2	1	0.122 U	0.097 U	0.106 U	0.135 U
	Aroclor 1016/1242	2	2	3	3	2	1	0.122 U	0.097 U	0.106 U	0.135 U
	Aroclor 1248	2	2	3	3	2	1	0.122 U	0.097 U	0.106 U	0.135 U
	Aroclor 1254	2	2	3	3	2	1	0.122 U	0.097 U	0.106 U	0.135 U
	Aroclor 1260	2	2	3	3	2	1	0.554	0.37	0.45	0.676
	Aroclor 1262	2	2	3	3	2	1	0.122 U	0.097 U	0.106 U	0.135 U
	Aroclor 1268	2	2	3	3	2	1	0.122 U	0.097 U	0.106 U	0.135 U
	Total PCBs	2	2	3	3	2	1	0.554	0.37	0.45	0.676
	Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA
Barium		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA
Cadmium		2	2	30	30	2	NA	NA	NA	NA	NA
Chromium		30	30	200	200	30	NA	NA	NA	NA	NA
Lead		300	300	300	300	300	NA	NA	NA	NA	NA
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA
Mercury		20	20	30	30	20	NA	NA	NA	NA	NA
Selenium		400	400	800	800	400	NA	NA	NA	NA	NA
Silver		100	100	200	200	100	NA	NA	NA	NA	NA
Thallium		8	8	60	60	8	NA	NA	NA	NA	NA
Vanadium		600	600	1000	1000	600	NA	NA	NA	NA	NA
Zinc		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA
Metals, TCLP (mg/L)	Lead, TCLP	NS	NS	NS	NS	NS	5.0 ^(b)	NA	NA	NA	NA
Total Petroleum Hydrocarbons (mg/kg)	Diesel Range Organics	1000	1000	3000	3000	1000	NA	20	23	71	NA
	Gasoline Range Organics	1000	1000	3000	3000	1000	NA	8.9 U	3.7 U	6.5 U	NA

Notes:
(1) Sample identifications in parenthesis denotes identification utilized on figures.
All units in mg/kg unless otherwise specified.
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
mg/L - milligrams per liter.
NA - Sample not analyzed for the listed analyte.
ND - Not detected; quantitation limit not available in historical data.
U - Compound was not detected at specified quantitation limit.
Values in Bold indicate the compound was detected.
Values shown in bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.
Values shown in bold and outlined exceed TSCA standard.
PAHs - Polynuclear Aromatic Hydrocarbons.
PCBs - Polychlorinated Biphenyls.
RC - Reportable Concentration.
TSCA - Toxic Substances Control Act criteria.
Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.
^(a) - Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.
^(b) - Depth not available in historical report.

TABLE 6
Summary of Analytical Detected Results for Soil Samples - 118 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						118 Comp 1 (118-RUG-COM-1-S and M)		118 Comp 2 (118-RUG-COM-2-S and M)		118 Ruggles Front (118-RUG-FRONT)	118 Ruggles Front Comp (118-RUG-F-COMP)		118 Ruggles Rear (118-RUG-REAR)	118 Ruggles Rear Comp (118-RUG-R-COMP)		A12		A13			A14		A15		C.5-12 (C.5-12)	
		Sample Date:						0-3	3-6	0-3	3-6	0-0.5	0-0.25	*	0-0.5	*	0.75-3	3-6	0.5-3	0.5-3'	3-6	2-3	3-4.5	2.75-4	1-3	3-5		
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA	(S)	(M)	(S)	(M)		(S)	(M)		*	Field Dup											
VOCs	Trichloroethene	2	90	2	700	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	Toluene	500	500	1000	1000	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	Tetrachloroethene	10	30	10	200	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	Chlorobenzene	3	100	3	100	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	Ethylbenzene	500	500	1000	1000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	m & p-Xylene	300	500	300	1000	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 U	0.18 U	NA	NA	NA	NA	NA	
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.073 U	0.088 U	NA	NA	NA	NA	NA	
	PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	0.7	0.65	0.06 U	1.6	NA	0.22	6.2	NA	0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene		600	10	600	10	1	NA	2.3	3.1	0.14	0.74	NA	0.18	0.89	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Anthracene		1000	1000	3000	3000	1000	NA	7.3	5.8	0.27	3.6	NA	0.71	11	NA	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)anthracene		7	7	40	40	7	NA	8.8	10	0.74	6	NA	1.8	20	NA	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene		2	2	4	4	2	NA	7.1	8.7	0.69	6	NA	1.5	14	NA	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene		7	7	40	40	7	NA	8.5	11	0.97	6.2	NA	0.75	6.1	NA	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene		1000	1000	3000	3000	1000	NA	4.1	5.2	0.4	1.9	NA	0.91	4.5	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene		70	70	400	400	70	NA	2.8	3.4	0.29	2.2	NA	1.9	12	NA	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chrysene		70	70	400	400	70	NA	6.6	7.7	0.62	5.2	NA	1.6	17	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene		0.7	0.7	4	4	0.7	NA	1	1.3	0.11	0.58	NA	0.26	2.1	NA	0.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluoranthene		1000	1000	3000	3000	1000	NA	28	30	1.8	6.9	NA	4.4	50	NA	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Fluorene		1000	1000	3000	3000	1000	NA	2.6	1.7	0.068	2.1	NA	0.23	8.6	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Indeno(1,2,3-cd)pyrene		7	7	40	40	7	NA	4.6	5.9	0.4	2.3	NA	0.82	3.9	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene		80	300	80	500	0.7	NA	0.57 U	0.6 U	0.06 U	2.0	NA	0.067 U	6.3	NA	0.43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene		40	500	40	1000	4	NA	0.57 U	0.6 U	0.06 U	4.1	NA	0.17	17	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Phenanthrene		500	500	1000	1000	10	NA	30	21	1	24	NA	3.3	59	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Pyrene		1000	1000	3000	3000	1000	NA	20	22	1.2	5.4	NA	4	50	NA	7.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibenzofuran		NS	NS	NS	NS	100	NA	2.2	1.8	0.06 U	2.6	NA	0.14	6.2	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBs (mg/kg)		Aroclor 1221	2	2	3	3	2	1	NA	NA	NA	NA	0.013 U	0.013 U	NA	0.012 U	NA	NA	0.234 U	0.234 U	0.243 U	ND	0.238 U	0.245 U	0.245 U	0.334 U	ND	ND
		Aroclor 1232	2	2	3	3	2	1	NA	NA	NA	NA	0.026 U	0.027 U	NA	0.025 U	NA	NA	0.117 U	0.117 U	0.121 U	ND	0.119 U	0.123 U	0.123 U	0.167 U	ND	ND
	Aroclor 1016/1242	2	2	3	3	2	1	NA	NA	NA	NA	0.013 U	0.013 U	NA	0.012 U	NA	NA	0.117 U	0.117 U	0.121 U	ND	0.119 U	0.123 U	0.123 U	0.167 U	ND	ND	
	Aroclor 1248	2	2	3	3	2	1	NA	NA	NA	NA	0.013 U	0.013 U	NA	0.012 U	NA	NA	0.117 U	0.117 U	0.121 U	ND	0.119 U	0.123 U	0.123 U	0.167 U	ND	ND	
	Aroclor 1254	2	2	3	3	2	1	NA	NA	NA	NA	0.883	0.611	NA	0.012 U	NA	NA	3.84	0.529	2.128	2.5	0.119 U	2.4	0.964	0.167 U	0.462	ND	ND
	Aroclor 1260	2	2	3	3	2	1	NA	NA	NA	NA	0.013 U	0.269	NA	0.04	NA	NA	0.117 U	0.117 U	0.121 U	0.69	0.119 U	0.123 U	0.123 U	0.167 U	NA	NA	
	Aroclor 1262	2	2	3	3	2	1	NA	NA	NA	NA	0.013 U	0.013 U	NA	0.012 U	NA	NA	0.117 U	0.117 U	0.121 U	ND	0.119 U	0.123 U	0.123 U	0.167 U	NA	NA	
	Aroclor 1268	2	2	3	3	2	1	NA	NA	NA	NA	0.013 U	0.013 U	NA	0.012 U	NA	NA	0.117 U	0.117 U	0.121 U	ND	0.119 U	0.123 U	0.123 U	0.167 U	NA	NA	
	Total PCBs	2	2	3	3	2	1	NA	NA	NA	NA	0.883	0.88	NA	0.04	NA	NA	3.84	0.529	2.128	3.19	0.238 U	2.4	0.964	0.167 U	0.462	ND	ND
	Metals, total	Arsenic	20	20	20	20	20	NA	3.91	5.22	8.48	7.44	NA	6.22	5.2	NA	3.13	3.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium		1000	1000	3000	3000	1000	NA	143	296	298	688	NA	170	149	NA	44	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Beryllium		100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium		2	2	30	30	2	NA	1.30	1.42	1.88	4.67	NA	1.51	1.38	NA	0.59	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium		30	30	200	200	30	NA	13	14	36	33	NA	22	19	NA	11	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead		300	300	300	300	300	NA	242	99	446	560	NA	388	307	NA	132	143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nickel		20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury		20	20	30	30	20	NA	0.404	0.152	0.627	1.23	NA	0.511	0.631	NA	0.137	0.151	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Selenium		400	400	800	800	400	NA	0.72 U	0.75 U	0.79 U	1.12	NA	1.09	0.82	NA	0.21 U	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Silver		100	100	200	200	100	NA	0.36 U	0.37 U	0.39 U	0.43 U	NA	0.13 U	0.11 U	NA	0.11 U	0.11 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Thallium		8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium		600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zinc		2500	2500	3000	3000	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Metals, TCLP (mg/L)		Lead, TCLP	NS	NS	NS	NS	NS	5.0 ⁶⁹	0.3	NA	0.91	0.44	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Petroleum Hydrocarbons (mg/kg)	1000	1000	3000	3000	1000	NA	351	530	166	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	22	NA	NA	NA	NA	
	Diesel Range Organics	1000	1000	3000	3000	1000	NA	351	530	166	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.2 U	11.1 U	NA	NA	NA	NA	
	Gasoline Range Organics	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:
(1) Sample identifications in parenthesis denotes identification utilized on figures.
All units in mg/kg unless otherwise specified.
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
mg/L - milligrams per liter.
NA - Sample not analyzed for the listed analyte.
ND - Not detected; quantitation limit not available in historical data.
U - Compound was not detected at specified quantitation limit.
Values in Bold indicate the compound was detected.
Values shown in bold and shaded type exceed one or more of the listed Method 1 standards or TCLP standard, as applicable.
Values shown in bold and outlined exceed TSCA standard.
PAHs - Polynuclear Aromatic Hydrocarbons.
PCBs - Polychlorinated Biphenyls.
RC - Reportable Concentration.
TSCA - Toxic Substances Control Act criteria.
Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.
¹ = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.
* - Depth not available in historical report.

TABLE 6
Summary of Analytical Detected Results for Soil Samples - 118 Ruggles Street
New Bedford, MA

Analysis	Analyte	Sample Location (see footnote 1):						C,5-13 (C,5-13)		C11-1					D14
		Sample Date:						12/16/2005	12/16/2005	12/16/2005	12/16/2005	12/16/2005	12/16/2005	12/16/2005	12/16/2005
		Sample Depth (ft.):						1-3	3-5	1-3	0.5-3'	3-6	3-6'	6-9	3-4
		S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA								
VOCs	Trichloroethene	2	90	2	700	0.3	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U
	4-Methyl-2-pentanone	50	400	50	400	0.4	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U
	Toluene	500	500	1000	1000	30	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U
	Tetrachloroethene	10	30	10	200	1	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U
	Chlorobenzene	3	100	3	100	1	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U
	Ethylbenzene	500	500	1000	1000	40	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U
	m & p-Xylene	300	500	300	1000	300	NA	NA	NA	NA	NA	NA	NA	NA	0.046 U
	Naphthalene	40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	0.023 U
	PAHs / Dibenzofuran (mg/kg)	Acenaphthene	1000	1000	3000	3000	4	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene		600	10	600	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		2	2	4	4	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene		70	70	400	400	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene		0.7	0.7	4	4	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		7	7	40	40	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene		80	300	80	500	0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene		40	500	40	1000	4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene		500	500	1000	1000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene		1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NS	NS	NS	NS	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	
PCBs (mg/kg)	Aroclor 1221	2	2	3	3	2	1	ND	ND	ND	ND	0.2 U	ND	0.2 U	0.2 U
	Aroclor 1232	2	2	3	3	2	1	ND	ND	ND	ND	0.1 U	ND	0.1 U	0.1 U
	Aroclor 1016/1242	2	2	3	3	2	1	ND	ND	ND	ND	0.1 U	NA	0.1 U	0.1 U
	Aroclor 1248	2	2	3	3	2	1	ND	ND	ND	ND	0.1 U	ND	0.1 U	0.1 U
	Aroclor 1254	2	2	3	3	2	1	0.592	ND	0.48	ND	0.351	ND	0.1 U	0.527
	Aroclor 1260	2	2	3	3	2	1	ND	ND	ND	0.38	0.1 U	ND	0.1 U	0.1 U
	Aroclor 1262	2	2	3	3	2	1	NA	NA	NA	NA	NA	ND	NA	NA
	Aroclor 1268	2	2	3	3	2	1	NA	NA	NA	NA	NA	ND	NA	NA
	Total PCBs	2	2	3	3	2	1	0.592	ND	0.48	0.38	0.351	ND	0.2 U	0.527
Metals, total	Arsenic	20	20	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Barium	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Beryllium	100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Cadmium	2	2	30	30	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chromium	30	30	200	200	30	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lead	300	300	300	300	300	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nickel	20	20	700	700	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mercury	20	20	30	30	20	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Selenium	400	400	800	800	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Silver	100	100	200	200	100	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Thallium	8	8	60	60	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Zinc	600	600	1000	1000	600	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, TCLP (mg/L)	Lead, TCLP	NS	NS	NS	NS	NS	5.0 ⁽⁵⁾	NA	NA	NA	NA	NA	NA	NA	NA
	Total Petroleum Hydrocarbons (mg/kg)	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	155
	Gasoline Range Organics	1000	1000	3000	3000	1000	NA	NA	NA	NA	NA	NA	NA	NA	9.5

Notes:
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Values shown in bold and outlined exceed TSCA standard.
PAHs - Polynuclear Aromatic Hydrocarbons.
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Data are based on the "Summary of Analytical Data, 101 Greenwood Street", dated March 15, 2006, BETA Group, Inc.
¹ = Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.
* - Depth not available in historical report.

Table 7
Summary of PCB Results for Concrete Samples
101 Greenwood Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-19-C		RD-20-C		RD-21-C		RD-22-C		RD-23-C		RD-24-C		RD-25-C		RD-26-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.106 J	0.256 J	0.235 J	0.241 J	0.591 J	0.444 J	0.0500 U	0.204 J	0.0500 U	0.0763 J	0.0576 U	0.0703 J	0.0500 U	0.0500 U	0.133 J	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.132 J	0.0921 J	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.106 J	0.256 J	0.235 J	0.241 J	0.723 J	0.5361 J	0.0500 U	0.204 J	0.0500 U	0.0763 J	0.0576 U	0.0703 J	0.0500 U	0.0500 U	0.133 J	0.0500 U

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-27-C		RD-28-C		RD-29-C		RD-30-C		RD-31-C		RD-32-C		RD-33-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0728 J	0.115 J	0.211 J	0.255 J	0.118 J	0.506 J	0.174 J	0.445 J	0.541 J	0.553 J	0.127 J	0.137 J	0.183 J	0.390 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0728 J	0.115 J	0.211 J	0.255 J	0.118 J	0.506 J	0.174 J	0.445 J	0.541 J	0.553 J	0.127 J	0.137 J	0.183 J	0.390 J

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-34-C				RD-35-C			
			0-1	0-1	1-2	1-2	0-1	0-1	1-2	1-2
			3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	
	Aroclor 1254	1	0.0941 J	0.0810 J	0.116 J	0.0865 J	0.0500 U	0.135 J	0.176 J	0.148 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	
	Total PCBs	1	0.0941 J	0.0810 J	0.116 J	0.0865 J	0.0500 U	0.135 J	0.176 J	0.148 J

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in Bold and shaded type exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 8
Summary of PCB Results for Concrete Samples
102 Greenwood Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-88-C		RD-89-C		RD-90-C		RD-91-C		RD-92-C		RD-93-C		RD-94-C	RD-94-CR	RD-95-C		
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0.5 ^(a)
			3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	3/19/2010	3/19/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1254	1	0.143 J	0.139 J	0.252 J	0.189 J	0.266 J	0.275 J	0.332 J	0.146 J	0.0782 J	0.0743 J	0.758 J	0.117 J	0.180 J	0.263 J	0.329 J	4.79 J	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Total PCBs	1	0.143 J	0.139 J	0.252 J	0.189 J	0.266 J	0.275 J	0.332 J	0.146 J	0.0782 J	0.0743 J	0.758 J	0.117 J	0.180 J	0.263 J	0.329 J	4.79 J	0.0500 U

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-96-C			RD-97-C			RD-98-C			RD-99-C		RD-100-C		RD-101-C		RD-102-C
			0-1	1-2	0.5 ^(a)	0-1	1-2	0.5 ^(a)	0-1	1-2	0.5 ^(a)	0-1	1-2	0-1	1-2	0-1	1-2	0-1
			3/19/2010	3/19/2010	4/1/2010	3/19/2010	3/19/2010	4/1/2010	3/19/2010	3/19/2010	4/1/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010
PCBs (mg/kg)	Aroclor 1016	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	5.39 J	12.4 J	0.0500 U	32.9 J	182 J	0.0500 U	10.1 J	81.3 J	0.0500 U	0.703 J	0.633 J	0.239 J	1.25 J	0.485 J	0.769 J	0.402 J
	Aroclor 1260	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	5.39 J	12.4 J	0.0500 U	32.9 J	182 J	0.0500 U	10.1 J	81.3 J	0.0500 U	0.703 J	0.633 J	0.239 J	1.25 J	0.485 J	0.769 J	0.402 J

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-103-C		RD-104-C		RD-105-C	
			0-1	1-2	0-1	1-2	0-1	1-2
			3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0660 J	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0836 J
	Aroclor 1260	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Total PCBs	1	0.0660 J	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0836 J	

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in **Bold and shaded type** exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 9
Summary of PCB Results for Concrete Samples
111 Greenwood Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:	RD-01-C	RD-02-C	RD-03-C	RD-04-C	RD-05-C	RD-06-C	RD-07-C	RD-08-C	RD-09-C	RD-10-C	RD-11-C	RD-12-C		RD-13-C	RD-14-C		
		Sample Depth (ft.):	1	1	1	1	1	1	1	1	1	1	1	1	0-1	1-2	1	0-1	1-2
		Sample Date:	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010
TSCA																			
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Analysis	Analyte	Sample ID:	RD-15-C		RD-16-C		RD-17-C	RD-18-C	RD-36-C	RD-37-C	
		Sample Depth (ft.):	0-1	1-2	0-1	1-2	0-1	0-1	0-1	0-1	1-2
		Sample Date:	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
TSCA			Shed								
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in Bold and shaded type exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 10
Summary of PCB Results for Concrete Samples
98 Ruggles Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-71-C		RD-72-C		RD-73-C		RD-74-C	RD-75-C	RD-76-C		RD-77-C		RD-78-C		RD-79-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	0-1	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0801 J	0.239 J	0.0500 U	0.0987 J	0.0500 U	0.115 J	0.0500 U	0.0500 U	0.0646 J	0.217 J	0.118 J	0.248 J	0.170 J	0.404 J	0.253 J	0.291 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0801 J	0.239 J	0.0500 U	0.0987 J	0.0500 U	0.115 J	0.0500 U	0.0500 U	0.0646 J	0.217 J	0.118 J	0.248 J	0.170 J	0.404 J	0.253 J	0.291 J

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-80-C		RD-81-C		RD-82-C		RD-83-C		RD-84-C		RD-85-C		RD-86-C		RD-87-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.375 J	0.217 J	0.181 J	0.161 J	0.277 J	0.255 J	0.109 J	0.256 J	0.156 J	0.102 J	0.117 J	0.303 J	0.195 J	0.0500 U	0.0500 U	0.0903 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.375 J	0.217 J	0.181 J	0.161 J	0.277 J	0.255 J	0.109 J	0.256 J	0.156 J	0.102 J	0.117 J	0.303 J	0.195 J	0.0500 U	0.0500 U	0.0903 J

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in Bold and shaded type exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 11
Summary of PCB Results for Concrete Samples
108 Ruggles Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-54-C				RD-55-C		RD-56-C		RD-57-C		RD-58-C		RD-59-C		RD-60-C	
			0-1	0-1	1-2	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/12/2010	3/12/2010 Field Dup	3/12/2010	3/12/2010 Field Dup	3/12/2010	3/12/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-61-C		RD-62-C		RD-63-C		RD-64-C		RD-65-C		RD-66-C		RD-67-C	RD-68-C	RD-69-C		RD-70-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	0-1	0-1	1-2	0-1	1-2
			3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/17/2010	3/17/2010	3/17/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in **Bold and shaded type** exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 12
Summary of PCB Results for Concrete, Foam and Soil Samples
118 Ruggles Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:	RD-38-C	RD-38-F	RD-39-C	RD-39-F	RD-40-C	RD-40-F	RD-40-S	RD-41-C	RD-41-F	RD-42-C	RD-42-F	RD-42-S	RD-43-C	RD-43-F	RD-44-C	RD-45-C	
		Sample Depth (ft.):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Sample Date:	3/11/2010	3/11/2010	3/11/2010	4/1/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/1/2010	3/11/2010	3/11/2010
		TSCA																	
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1221	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1232	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1242	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1248	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1254	1	0.0500 U	0.583 J	0.0500 U	0.747 U	0.0500 U	1.26 J	0.806 J	0.0500 U	2.88 J	0.0500 U	1.62 J	1.12 J	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1260	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.194 J	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Total PCBs	1	0.0500 U	0.583 J	0.0500 U	0.747 U	0.0500 U	1.26 J	1.00 J	0.0500 U	2.88 J	0.0500 U	1.62 J	1.12 J	0.0500 U	0.0885 U	0.0594 U	0.0500 U	

Analysis	Analyte	Sample ID:	RD-45-F	RD-46-C	RD-46-F	RD-47-C	RD-47-F	RD-48-C	RD-48-F	RD-48-S	RD-49-C	RD-49-F	RD-50-C	RD-50-F	RD-51-C	RD-51-F	RD-52-C	RD-52-F	
		Sample Depth (ft.):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Sample Date:	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010
		TSCA																	
PCBs (mg/kg)	Aroclor 1016	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1221	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1232	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1242	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1248	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1254	1	0.511 J	0.0500 U	0.507 J	0.0500 U	0.606 J	0.0500 U	1.26 J	5.89 J	0.0500 U	0.107 U	0.0500 U	0.494 J	0.0500 U	0.544 J	0.0500 U	0.651 J	
	Aroclor 1260	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Total PCBs	1	0.511 J	0.0500 U	0.507 J	0.0500 U	0.606 J	0.0500 U	1.26 J	5.89 J	0.0500 U	0.107 U	0.0500 U	0.494 J	0.0500 U	0.544 J	0.0500 U	0.651 J	

Analysis	Analyte	Sample ID:	RD-53-C			
		Sample Depth (ft.):	0-1	0-1	1-2	1-2
		Sample Date:	3/12/2010	3/12/2010	3/12/2010	3/12/2010
		TSCA		Field Dup	Field Dup	
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0800 J	0.0861 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Total PCBs	1	0.0500 U	0.0500 U	0.0800 J	0.0861 J	

Notes:

mg/kg - milligrams per kilogram or parts per million (ppm).

J - Estimated value.

U - Compound was not detected at specified quantitation limit.

UJ - Estimated non-detect.

Values in **Bold** indicate the compound was detected.

Values shown in **Bold and shaded type** exceed one or more of the listed criteria.

PCBs - Polychlorinated Biphenyls.

TSCA - Toxic Substances Control Act criteria.

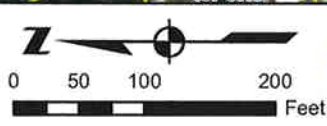
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Sample IDs ending "C" indicate concrete samples, Sample IDs ending in "F" indicate foam insulation samples and Sample IDs ending in "S" indicate soil samples.

FIGURES



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 650 Suffolk St.
 Wannalancit Mills
 Lowell, MA 01854

FIGURE 1
SITE LOCATION



Summary of Regulatory Comparison Criteria for Soil (mg/kg)						
Contaminant	S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA
Names						
Benzo (a)pyrene (BAP)	2	2	4	4	2	N/A
Total PCBs	2	2	2	2	2	1
Arsenic	20	20	20	20	20	N/A
Barium	1000	1000	3000	3000	1000	N/A
Cadmium	2	2	30	30	2	N/A
Chromium	30	30	200	200	30	N/A
Lead	300	300	300	300	300	N/A

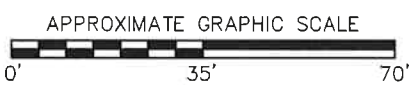
NOTES:
 ALL UNITS IN MG/KG UNLESS OTHERWISE SPECIFIED.
 MG/KG - MILLIGRAMS PER KILOGRAM (DRY WEIGHT).
 COM/COMP - COMPOSITE SAMPLE.
 DUP - FIELD DUPLICATE.
 N/A - NOT APPLICABLE.
 PCBs - POLYCHLORINATED BIPHENYLS.
 RC - REPORTABLE CONCENTRATION.
 TSCA - TOXIC SUBSTANCES CONTROL ACT.
 SAMPLES WERE COLLECTED BY BETA GROUP, INC.
 SPLIT SAMPLES WERE WITH GOLDMAN ENVIRONMENT AND ANALYZED BY GROUNDWATER ANALYTICAL.
 SAMPLE LOCATION NAMES ARE SLIGHTLY DIFFERENT FROM THAT IN DATA TABLES DUE TO PROGRAM CONSTRAINTS; SEE REPORT FOR DETAILS.

VALUES SHOWN IN PEACH BACKGROUND EXCEED ONE OR MORE OF THE LISTED MASSDEP METHOD 1 STANDARDS.

VALUES SHOWN IN YELLOW BACKGROUND EXCEED TSCA BUT ARE LESS THAN THE LISTED MASSDEP METHOD 1 STANDARDS.

SAMPLE LOCATION	101-GW-COM-2-S	SAMPLE DEPTH RANGE IN FEET
SAMPLE DATE	12/19/05	
Constituent	0.00 - 3.00	
BAP	3.8	
Arsenic	3.92	
Barium	277	
Cadmium	1.26	
Chromium	18	
Lead	346	

ALL BORING LOCATIONS ARE APPROXIMATE, BASED ON ESTIMATED 2005-2006 BETA LOCATIONS



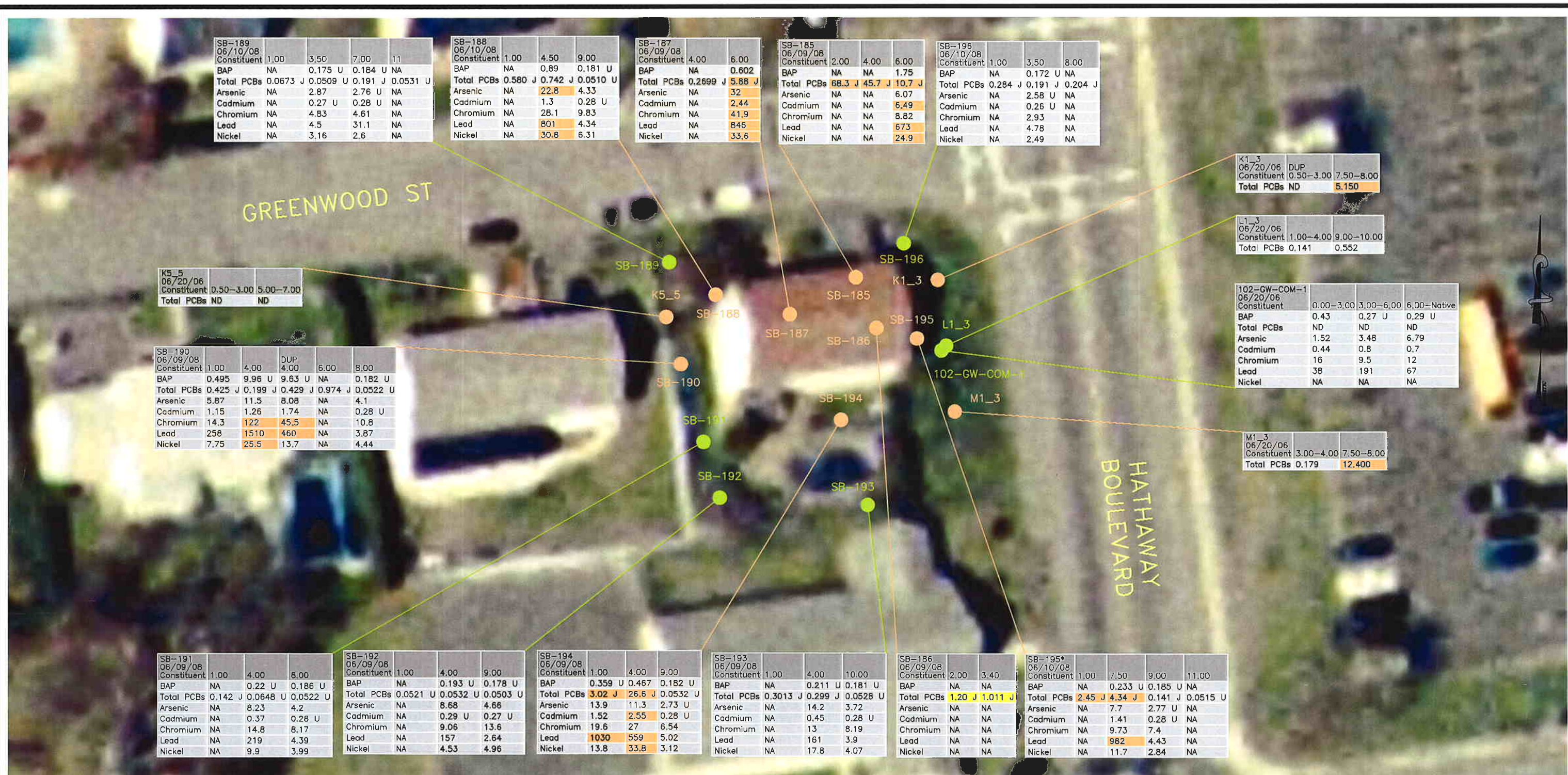
**101 GREENWOOD STREET
 NEW BEDFORD, MASSACHUSETTS**

**ANALYTICAL RESULTS
 SUMMARY MAP**

TRC Wanalancit Mills
 650 Suffolk Street
 Lowell, MA 01854
 (978) 970-5600

DRAWN BY: PZ DATE: JUNE 2009
 CHECKED BY: DP

FIGURE 2

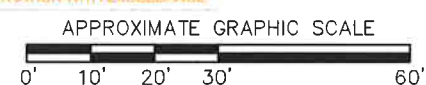


Summary of Regulatory Comparison Criteria for Soil (mg/kg)						
Contaminant	S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA
Names						
<i>Benzo(a)pyrene (BAP)</i>	2	2	4	4	2	N/A
<i>Total PCBs</i>	2	2	3	3	2	1
<i>Arsenic</i>	20	20	20	20	20	N/A
<i>Cadmium</i>	2	2	30	30	2	N/A
<i>Chromium</i>	30	30	200	200	30	N/A
<i>Lead</i>	300	300	300	300	300	N/A
<i>Nickel</i>	20	20	700	700	20	N/A

RC S-1 is listed for reference purposes only.

NOTES:
 ALL UNITS IN MG/KG UNLESS OTHERWISE SPECIFIED, MG/KG - MILLIGRAMS PER KILOGRAM (DRY WEIGHT).
 J - ESTIMATED VALUE.
 NA - SAMPLE NOT ANALYZED FOR THE LISTED ANALYTE.
 N/A - NOT APPLICABLE.
 ND - NOT DETECTED.
 PCBs - POLYCHLORINATED BIPHENYLS.
 RCS - REPORTABLE CONCENTRATIONS.
 TSCA - TOXIC SUBSTANCES CONTROL ACT.
 U - COMPOUND WAS NOT DETECTED AT SPECIFIED QUANTITATION LIMIT.
 * - IMAGE CORRECTED LOCATION - SAMPLE POINT LOCATION ADJUSTED FROM SURVEY TO COMPENSATE FOR GEOMETRIC DISTORTION (RELIEF DISPLACEMENT).
 VALUES SHOWN IN PEACH BACKGROUND EXCEED ONE OR MORE OF THE LISTED MASSDEP METHOD 1 STANDARDS.
 VALUES SHOWN IN YELLOW BACKGROUND EXCEED TSCA BUT ARE LESS THAN THE LISTED MASSDEP METHOD 1 STANDARDS.

SAMPLE LOCATION	SAMPLE DATE	CONSTITUENT	1.00	4.00	9.00	SAMPLE DEPTH (DEPTH RANGE) IN FEET
SB-192	06/09/08	BAP	NA	0.193 U	0.178 U	
		Total PCBs	0.0521 U	0.0532 U	0.0503 U	
		Arsenic	NA	8.68	4.66	
		Cadmium	NA	0.29 U	0.27 U	
		Chromium	NA	9.06	13.6	
		Lead	NA	157	2.64	
		Nickel	NA	4.53	4.96	



**102 GREENWOOD STREET
 NEW BEDFORD, MASSACHUSETTS**

**ANALYTICAL RESULTS SUMMARY MAP
 TRC AND BETA DATA**

TRC Wannalancit Mills
 650 Suffolk Street
 Lowell, MA 01854
 (978) 970-5600

DRAWN BY: PZ DATE: JUNE 2009
 CHECKED BY: DP

**FIGURE
 3**



Summary of Regulatory Comparison Criteria for Soil (mg/kg)						
Contaminant	S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA
Names						
Benzo(a)pyrene (BAP)	2	2	4	4	2	N/A
Total PCBs	2	2	2	2	2	1
Arsenic	20	20	20	20	20	N/A
Barium	1000	1000	3000	3000	1000	N/A
Cadmium	2	2	30	30	2	N/A
Chromium	30	30	200	200	30	N/A
Lead	300	300	300	300	300	N/A

● SOIL BORING ● SOIL BORING THAT HAS CONCENTRATION WITH EXCEEDANCE

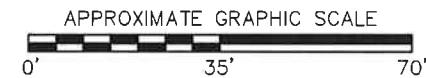
NOTES:
 ALL UNITS IN MG/KG UNLESS OTHERWISE SPECIFIED.
 MG/KG - MILLIGRAMS PER KILOGRAM (DRY WEIGHT).
 COM/COMP - COMPOSITE SAMPLE.
 ND - NOT DETECTED ABOVE METHOD DETECTION LIMIT.
 NA - SAMPLE NOT ANALYZED FOR THE LISTED COMPOUND.
 N/A - NOT APPLICABLE.
 PCBs - POLYCHLORINATED BIPHENYLS.
 RC - REPORTABLE CONCENTRATION.
 TSCA - TOXIC SUBSTANCES CONTROL ACT.
 U - COMPOUND WAS NOT DETECTED AT SPECIFIED QUANTITATION LIMIT.
 SAMPLES WERE COLLECTED BY BETA GROUP, INC.
 SPLIT SAMPLES WERE WITH GOLDMAN ENVIRONMENT AND ANALYZED BY GROUNDWATER ANALYTICAL.
 SAMPLE LOCATION NAMES SLIGHTLY DIFFERENT FROM THAT IN DATA TABLES DUE TO PROGRAM CONSTRAINTS; SEE REPORT FOR DETAILS.

VALUES SHOWN IN PEACH BACKGROUND EXCEED ONE OR MORE OF THE LISTED MASSDEP METHOD 1 STANDARDS.

VALUES SHOWN IN YELLOW BACKGROUND EXCEED TSCA BUT ARE LESS THAN THE LISTED MASSDEP METHOD 1 STANDARDS.

SAMPLE LOCATION	111-GW-COM-4-D	SAMPLE DEPTH
SAMPLE DATE	12/19/05	RANGE IN FEET
Constituent	6.00-Native	
BAP	5.4	
Arsenic	21	
Barium	183	
Cadmium	2.47	
Chromium	18	
Lead	320	

ALL BORING LOCATIONS ARE APPROXIMATE, BASED ON ESTIMATED 2005-2006 BETA LOCATIONS



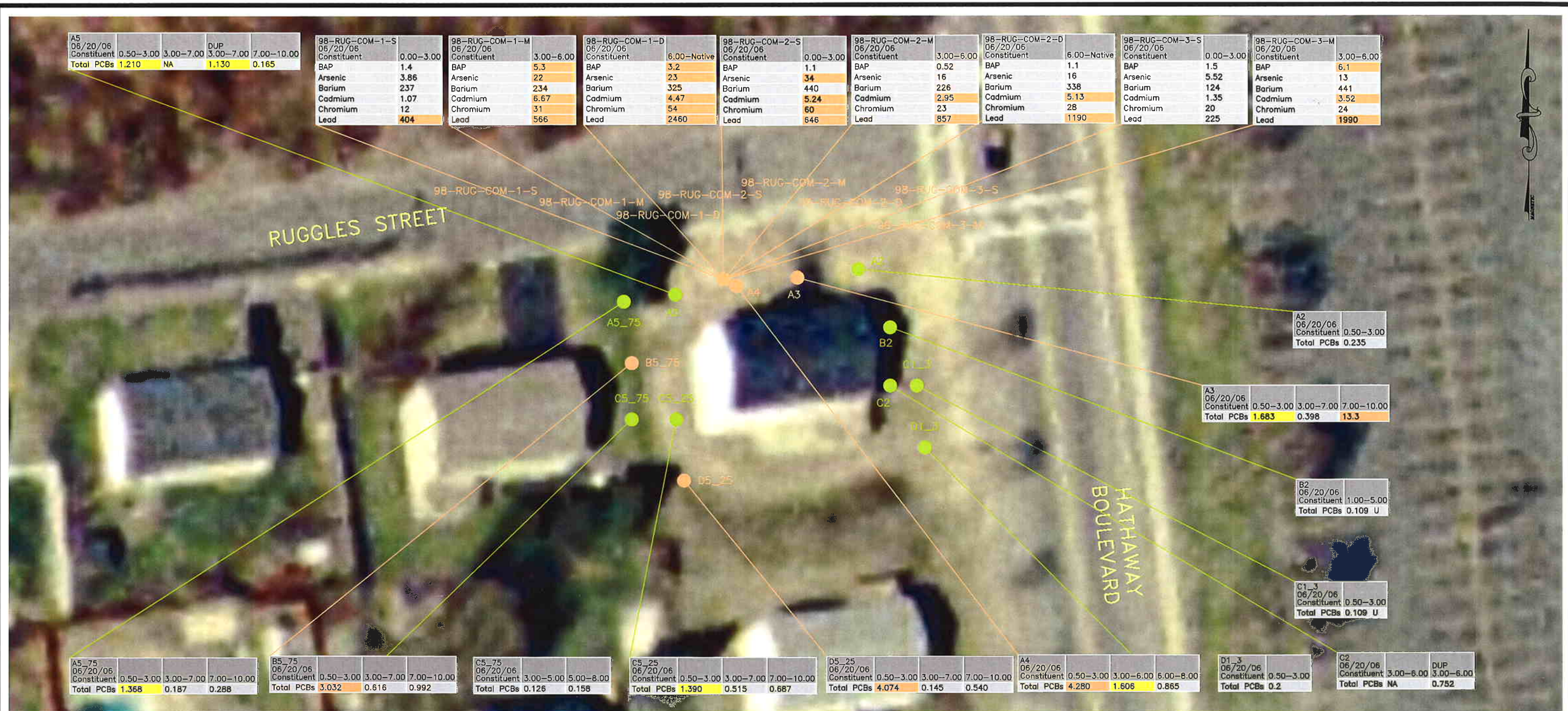
**111 GREENWOOD STREET
 NEW BEDFORD, MASSACHUSETTS**

**ANALYTICAL RESULTS
 SUMMARY MAP**

TRC Wompaton Mills
 650 Suffolk Street
 Lowell, MA 01854
 (978) 970-5600

DRAWN BY: PZ DATE: JUNE 2009
 CHECKED BY: DS

FIGURE 4



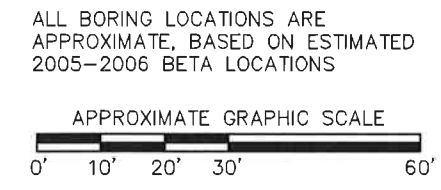
Summary of Regulatory Comparison Criteria for Soil (mg/kg)						
Contaminant	S-1/GW-2	S-1/GW-3	S-2/GW-2	S-2/GW-3	RC S-1	TSCA
Names						
Benzo(a)pyrene (BAP)	2	2	4	4	2	N/A
Total PCBs	2	2	2	2	2	1
Arsenic	20	20	20	20	20	N/A
Barium	1000	1000	3000	3000	1000	N/A
Cadmium	2	2	30	30	2	N/A
Chromium	30	30	200	200	30	N/A
Lead	300	300	300	300	300	N/A

NOTES:
 ALL UNITS IN MG/KG UNLESS OTHERWISE SPECIFIED.
 MG/KG - MILLIGRAMS PER KILOGRAM (DRY WEIGHT).
 COMP - COMPOSITE SAMPLE.
 ND - NOT DETECTED ABOVE METHOD DETECTION LIMIT.
 NA - SAMPLE NOT ANALYZED FOR THE LISTED COMPOUND.
 N/A - NOT APPLICABLE.
 PCBs - POLYCHLORINATED BIPHENYLS.
 RC - REPORTABLE CONCENTRATION.
 TSCA - TOXIC SUBSTANCES CONTROL ACT.
 U - COMPOUND WAS NOT DETECTED AT SPECIFIED QUANTITATION LIMIT.
 SAMPLES WERE COLLECTED BY BETA GROUP, INC.

VALUES SHOWN IN PEACH BACKGROUND EXCEED ONE OR MORE OF THE LISTED MASSDEP METHOD 1 STANDARDS.

VALUES SHOWN IN YELLOW BACKGROUND EXCEED TSCA BUT ARE LESS THAN THE LISTED MASSDEP METHOD 1 STANDARDS.

SAMPLE LOCATION	C5_75	06/20/06	Constituent	3.00 - 5.00	5.00 - 8.00	SAMPLE DEPTH
SAMPLE DATE						RANGE IN FEET
	Total PCBs	0.126		0.158		



**98 RUGGLES STREET
 NEW BEDFORD, MASSACHUSETTS**

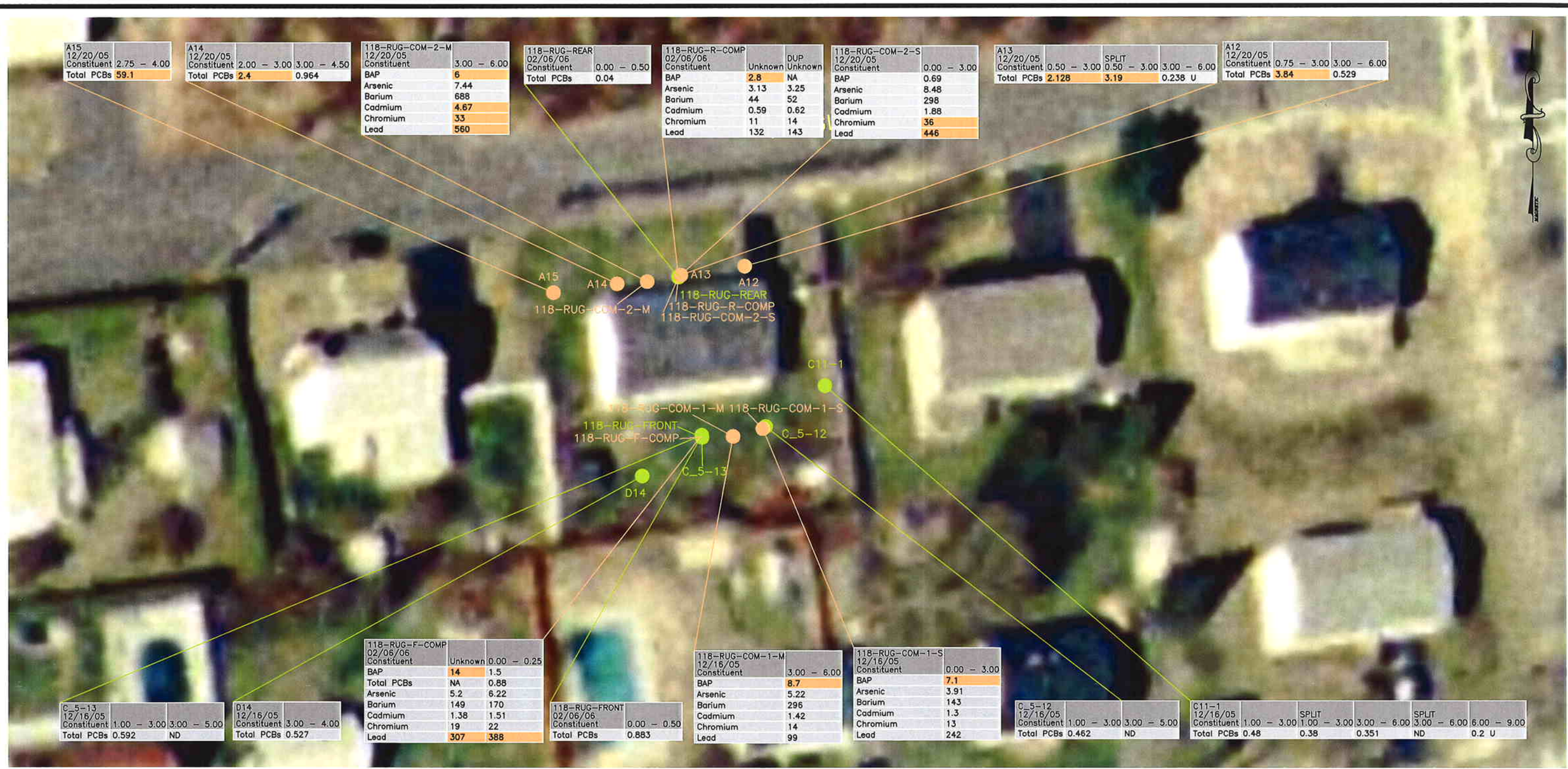
**ANALYTICAL RESULTS
 SUMMARY MAP**

TRC Wanalancit Mills
 650 Suffolk Street
 Lowell, MA 01854
 (978) 970-5600

FIGURE 5

DRAWN BY: PZ DATE: JUNE 2009
 CHECKED BY: DP

FILE: Q:\GEO\SOI\GIS\K\Projects\NewBedford\Soil_Results_118 Ruggles ST.DWG

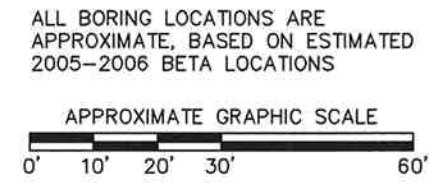


Summary of Regulatory Comparison Criteria for Soil (mg/kg)						
Contaminant	S-1/GV-2	S-1/GV-3	S-2/GV-2	S-2/GV-3	RCS-1	TSCA
Names						
Benzo(a)pyrene (BAP)	2	2	4	4	2	N/A
Total PCBs	2	2	2	2	2	1
Arsenic	20	20	20	20	20	N/A
Barium	1000	1000	3000	3000	1000	N/A
Cadmium	2	2	30	30	2	N/A
Chromium	30	30	200	200	30	N/A
Lead	300	300	300	300	300	N/A

NOTES:
 ALL UNITS IN MG/KG UNLESS OTHERWISE SPECIFIED.
 MG/KG - MILLIGRAMS PER KILOGRAM (DRY WEIGHT).
 COMP - COMPOSITE SAMPLE.
 ND - NOT DETECTED ABOVE METHOD DETECTION LIMIT.
 NA - SAMPLE NOT ANALYZED FOR THE LISTED COMPOUND.
 N/A - NOT APPLICABLE.
 PCBs - POLYCHLORINATED BIPHENYLS.
 RC - REPORTABLE CONCENTRATION.
 TSCA - TOXIC SUBSTANCES CONTROL ACT.
 SAMPLES WERE COLLECTED BY BETA GROUP, INC.
 SPLIT SAMPLE WERE WITH GOLDMAN ENVIRONMENT AND ANALYZED BY GROUNDWATER ANALYTICAL.
 SAMPLE LOCATION NAMES ARE SLIGHTLY DIFFERENT FROM THAT IN DATA TABLES DUE TO PROGRAM CONSTRAINTS; SEE REPORT FOR DETAILS.

● SOIL BORING ● SOIL BORING THAT HAS CONCENTRATION WITH EXCEEDANCE
 VALUES SHOWN IN PEACH BACKGROUND EXCEED ONE OR MORE OF THE LISTED MASSDEP METHOD 1 STANDARDS.

SAMPLE LOCATION	SAMPLE DATE	Constituent	2.00 - 3.00	3.00 - 4.50	SAMPLE DEPTH RANGE IN FEET
A14	12/20/05	Total PCBs	2.4	0.964	



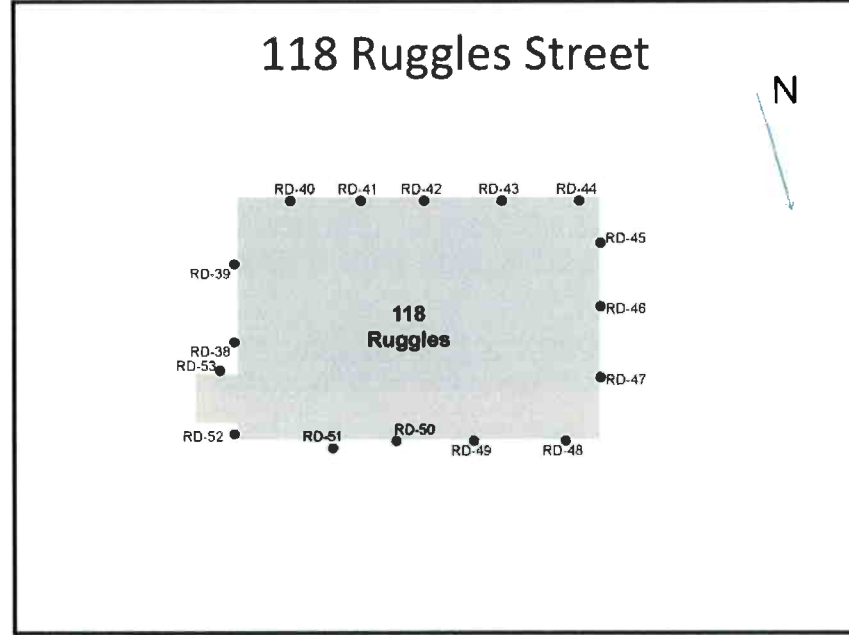
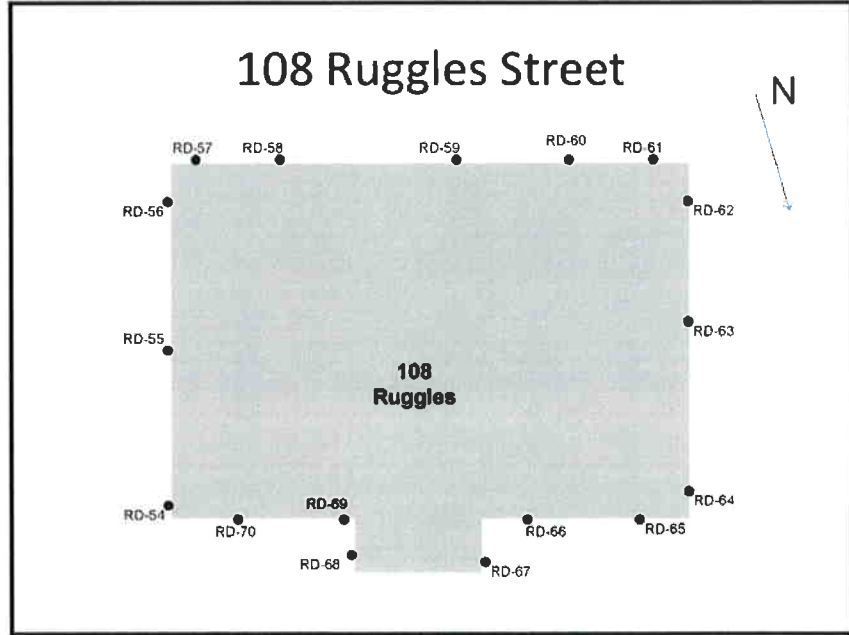
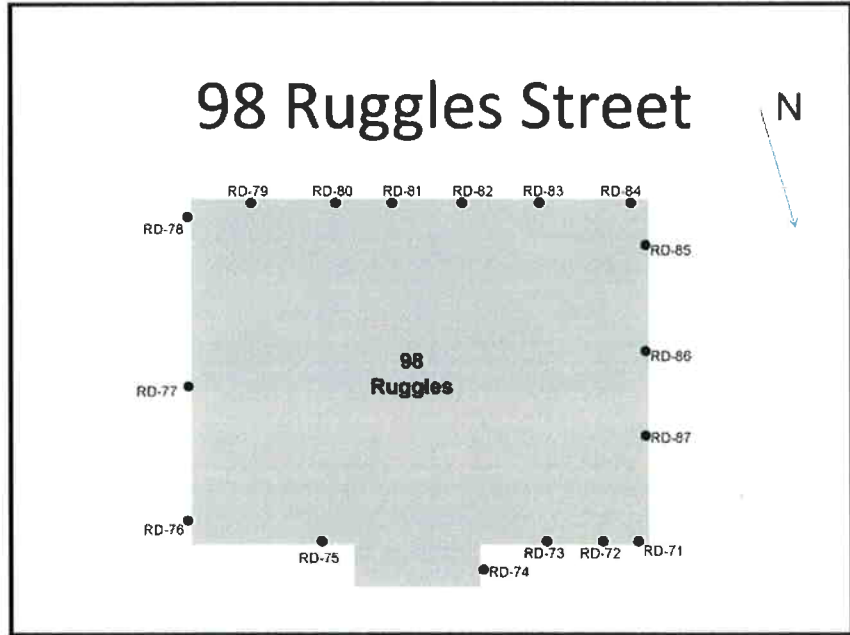
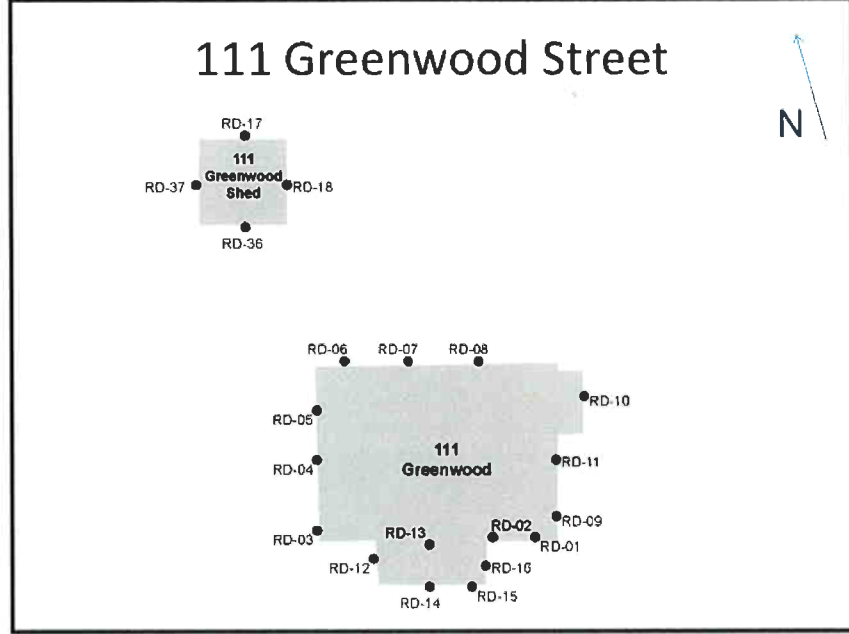
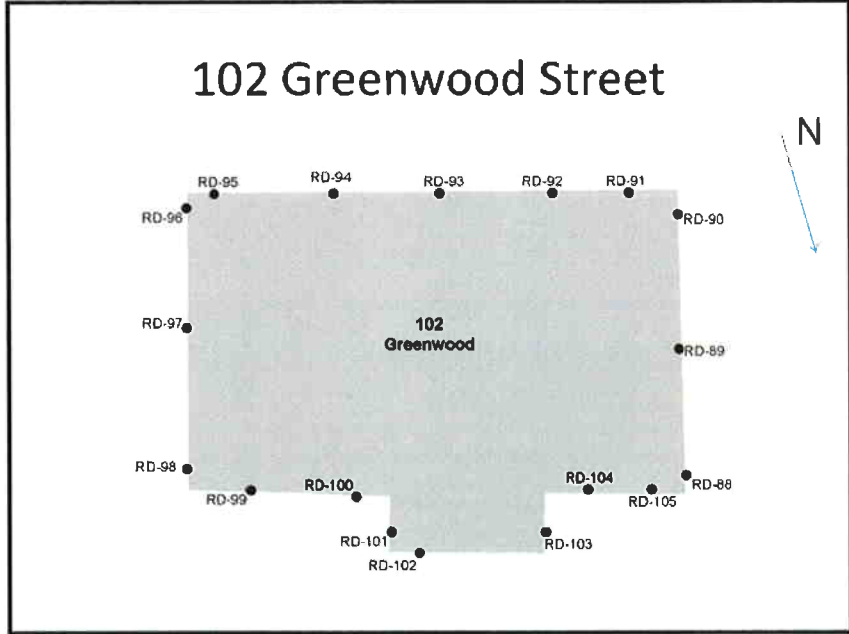
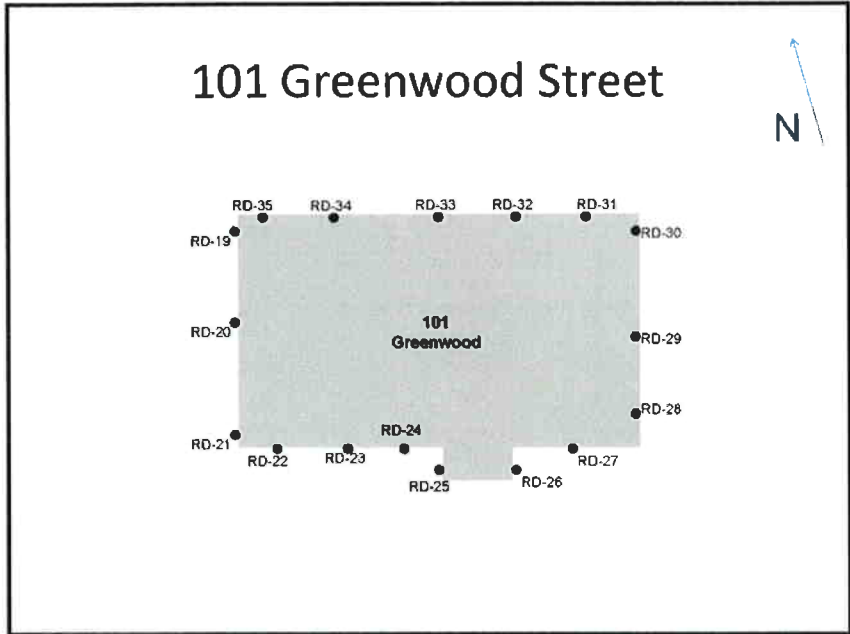
118 RUGGLES STREET NEW BEDFORD, MASSACHUSETTS

ANALYTICAL RESULTS SUMMARY MAP


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FIGURE
7

DRAWN BY: PZ	DATE: JUNE 2009
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NOT TO SCALE

RESIDENTIAL FOUNDATION SAMPLING PROGRAM NEW BEDFORD, MASSACHUSETTS		INDIVIDUAL SAMPLING LOCATIONS
 Wannalancit Mills 650 Suffolk Street Lowell, MA 01854 (978) 970-5600		
DRAWN BY: ASW CHECKED BY: JCM	DATE: MAY 2010	FIGURE 8

APPENDIX A

SOIL BORING LOGS



Wannalancit Mills
 650 Suffolk Street
 Lowell MA
 Telephone: 978-970-5600
 Fax: 978-453-1995

BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-185 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN NEG/Dan Regan & Bill Meadows DEPTH TO WATER (Approximate Feet) NA
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 6
 LOCATION Northeast corner of 102 Greenwood garage (interior location) GROUND ELEVATION (Feet) 92.00
 SAMPLING METHOD 24" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD Hand Tools

NOTES Sampled for PCBs, sample SB-165-6 also tested for PAHs & Metals

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		24/9"	S-1		Cored approximately 3-inches of CONCRETE.			No monitoring well installed
2		24/6"	S-2		3-6" Dark-brown fine SAND, trace fill (glass, wood debris, slag, coal, possible ash and fine gravel). 0-6" Brown fine SAND, SILT and BRICKS, trace organic peat in tip, cloth wads also present.		SB-185-2 0850	
4		24/10"	S-3		0-10" Organic PEAT, some silt, ash, fine sand and trace foam.		SB-185-4 0855	
6					End of Boring @ 6 feet		SB185-6 0900	



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-186 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN NEG/Dan Regan & Bill Meadows DEPTH TO WATER (Approximate Feet) NA
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 3.4
 LOCATION Southeast corner of 102 Greenwood garage (interior location) GROUND ELEVATION (Feet) 92.00
 SAMPLING METHOD 24" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD Hand tools
 NOTES Sampled for PCBs

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
1		24/6"	S-1		0-6" Brown FILL (some fine sand, bricks, wood debris, coal, possible ash and blue glass).			No monitoring well installed
2		24/10"	S-2		0-10" Brown to black fine SAND and FILL (coal, slag, glass and possible ash), cobble pushed at 3.4-feet (refusal).		SB-186-2 0915	
3					End of Boring - Refusal @ 3.4 feet		SB-186-3.4 0920	



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-187 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN NEG/Dan Regan & Bill Meadows DEPTH TO WATER (Approximate Feet) NA
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 6
 LOCATION Northeast corner of 102 Greenwood basement (interior) GROUND ELEVATION (Feet) 92.00
 SAMPLING METHOD 24" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD Hand tools

NOTES Sampled for PCBs, sample SB-187-6 also tested for PAHs & Metals

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		24/12"	S-1		Cored approximately 5-inches of CONCRETE.			No monitoring well installed
2		24/4"	S-2		5-9" CONCRETE DUST			
3					9-12" Brown fine SAND, some fine gravel, trace coal and glass. (Note: not enough recovery to sample.)			
4					0-4" Brown fine SAND, some silt, trace brick and plastic.		SB-187-4 0955	
5		24/16"	S-3		0-16" Dark-brown to blackish fine SAND, some silt with fill (brick, ash, coal, glass and stringy fiber shards).		SB-187-6 1000	
6					End of Boring @ 6 feet (Borehole collapsed)			



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-188 FILTER PACK TYPE NA
 TRC GEOLOGIST J. Saunders SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 8
 DATE DRILLED 6/10/2008 TOTAL DEPTH (Feet) 12
 LOCATION Front Northwest corner of 102 Greenwood house GROUND ELEVATION (Feet) 92.07
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD AMS 9100 Track Rig
 NOTES Sampled for PCBs, PAHs & Metals, SB-188-1 only PCBs, SB-188-4.5 -1/2 sample collected by R. Kranes-Goldman Environ., (Hold SB-188-12)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		48/18"	S-1		0-4" Dark-brown organic SILT, trace wood debris (mulch), glass and roots, no odor, no staining.		SB-188-1 1040	No monitoring well installed
2					4-18" Dark-brown SILT and fine SAND, trace fill (glass, coal, ash (ash layer appears to be at 4-foot bgs)), slightly moist, no odor, no staining.			
3								
4		48/18"	S-2		0-12" Fine SAND and FILL material (ash, coal, slag and glass), loose, slightly moist, no odor, no staining.		SB-188-4.5 1050	
5								
6								
7					12-18" Organic SILT (peat material), slightly moist to moist, (possible second ash layer below peat based on top), no odor, no staining.			
8		48/42"	S-3		0-12" Dark-brown SILT and fine SAND, trace fine gravel and fine to medium sand, wet, no odor, no staining.		SB-188-9 1055	
9								
10					12-42" Tan to orange-brown, fine to medium SAND, little coarse sand and fine to coarse gravel, trace silt, dense, wet, mottling, no odor, no staining.		SB-188-12 1100	
11								
12					End of Boring @ 12 feet			



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-189 FILTER PACK TYPE NA
 TRC GEOLOGIST J. Saunders SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 8
 DATE DRILLED 6/10/2008 TOTAL DEPTH (Feet) 12
 LOCATION Northwest corner of 102 greenwood yard GROUND ELEVATION (Feet) 91.52
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD AMS 9100 Track Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-189-1 sampled for PCBs only, (Hold SB-189-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM	
1		48/36"	S-1		0-6" Brown organic SILT, some fine sand, trace roots, no staining, no odor		SB-189-1 1000		
2			6-30" Dark-brown fine SAND, some silt, little medium to coarse sand, trace fine gravel, coal and glass, no odor, no staining.						
3					30-36" Tan fine to medium SAND, trace fine gravel, slightly moist, no odor, no staining.		SB-189-3.5 1005		
4		48/40"	S-2		0-30" Tan fine to medium SAND, trace fine gravel, slightly moist to moist, no odor, no staining.				
5									
6									No monitoring well installed
7				30-35" Dark-brown fine SAND, trace rock fragments, coal and possibly ash, moist, no odor, no staining		SB-189-7 1010			
8		48/30"	S-3	35-40" Brown SILT and fine SAND, trace fine to coarse gravel and medium to coarse sand, wet, no odor, no staining.					
9				0-30" Tan to brown SILT and fine SAND, trace fine to coarse gravel and medium to coarse sand, wet, no odor, no staining.					
10									
11						SB-189-11 1020			
12					End of Boring @ 12 feet				



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-190 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 10
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 12
 LOCATION West side of 102 Greenwood (west of gas service) GROUND ELEVATION (Feet) 91.78
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD 540M Dolly Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-190-4 sampled for VPH, EPH, & GC Fingerprint, SB-190-6 sampled for PCBs only, (Hold SB-190-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		48/30"	S-1		0-4" Organic TOPSOIL, roots, trace grass.		SB-190-1 1050	No monitoring well installed
2					4-22" Tan fine to coarse SAND, some fine gravel.			
3					22-30" Black to brown FILL (glass, brick, ash, metal (spark plug) and 4-inches of tar with asphalt odor).		SB-190-4 1115 SB-190-D DUP 0915	
4		48/30"	S-2		0-10" Black to brown FILL (glass, brick, ash, slate, metal, tar and brown to orange fine to coarse sand).			
5					10-20" Organic PEAT and SILT, some decomposed organic matter.		SB-190-6 1130	
6					20-30" Tan fine to medium SAND, some fine gravel, trace silt.			
7								
8		48/32"	S-3		0-32" Tan fine to coarse SAND and fine GRAVEL, trace silt, wet at 10-feet.		SB-190-8 1135	
9								
10								
11							SB-190-11 1145	
12					End of Boring @ 12 feet			



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-191 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 10
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 12
 LOCATION Southwest corner of 102 Greenwood (adjacent to patio) GROUND ELEVATION (Feet) 92.04
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD 540M Dolly Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-191-1 sampled for PCBs only, (Hold SB-191-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		48/32"	S-1		0-6" Organic TOPSOIL, roots, trace grass.			No monitoring well installed
2					6-10" Orange BRICK.		SB-191-1 1150	
3					10-14" Dark-black shiny fine to coarse SAND, some fine gravel.			
4					14-28" Tan fine to coarse SAND, some fine gravel.			
5		48/30"	S-2		28-32" Tan to brown FILL (ash, glass and trace slag).		SB-191-4 1155	
6					0-8" Dark-brown FILL (ash, glass and slag).			
7					8-20" Organic PEAT, some silt with trace mottling (tan).			
8					20-30" Tan fine to coarse SAND, some fine gravel, trace silt with orange oxidation-reduction hue.			
9		48/38"	S-3		0-38" Tan fine to coarse SAND, some fine gravel (multi-colored gravel and sand) and silt, wet at 10-feet.		SB-191-8 1200	
10								
11							SB-191-11 1130	
12					End of Boring @ 12 feet			



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-192 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 10
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 12
 LOCATION Southwest corner of 102 Greenwood yard (west of pool) GROUND ELEVATION (Feet) _____
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD 540M Dolly Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-192-1 sampled for PCBs only, (Hold SB-192-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
1		48/30"	S-1		0-4" Organic TOPSOIL, trace fine gravel and grass.		SB-192-1 1330	No monitoring well installed
2					4-22" Tan to brown fine to medium SAND, some fine gravel.			
3					22-30" Red brick FILL, some fine to medium sand, silt, fine gravel and trace coal.			
4		48/28"	S-2		0-16" Tan to brown fine to medium SAND, some silt and fine gravel.		SB-192-4 1335	
5								
6								
7					16-22" Dark-brown organic PEAT and SILT.			
8					22-28" Tan to brown fine to coarse SAND, some silt, trace fine gravel.			
9		48/34"	S-3		0-34" Tan fine to coarse SAND, some silt and fine gravel, wet at 10-feet.		SB-192-9 1345	
10								
11							SB-192-11 1350	
12					End of Boring @ 12 feet			



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BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-193 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 10
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 12
 LOCATION Southeast corner of 102 Greenwood yard (east of pool) GROUND ELEVATION (Feet) 91.69
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD 540M Dolly Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-193-1 sampled for PCBs only, (Hold SB-193-12)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
1		48/28"	S-1		0-2" Organic TOPSOIL and ROOTS. 2-20" Dark-brown to grayish fine to coarse SAND, trace coal and glass (blue and clear).		SB-193-1 1305	No monitoring well installed
2								
3					20-28" Orange brown to black FILL (glass, slag, ash, and rusty metallic pieces).		SB-193-4 1310	
4		48/36"	S-2		0-24" FILL (melted glass, ash, black plastic (possible capacitor waste), coal, ash, rubber and tar).			
5								
6								
7					24-26" WOOD debris.			
8					26-36" Organic PEAT and SILT.			
9		48/36"	S-3		0-2" Mixed PEAT and gray SAND 2-36" Tan to gray fine to coarse SAND, some fine gravel, trace silt, wet at 10-feet.		SB-193-10 1320	
10								
11								
12					End of Boring @ 12 feet		SB-193-12 1325	



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 Fax: 978-453-1995

BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-194 FILTER PACK TYPE NA
 TRC GEOLOGIST C. Foster SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 10
 DATE DRILLED 6/9/2008 TOTAL DEPTH (Feet) 12
 LOCATION Southeast corner of 102 Greenwood yard (northeast of pool) GROUND ELEVATION (Feet) 91.90
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD 540M Dolly Rig
 NOTES Sampled for PCBs, Metals & PAHs, (Hold SB-194-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		48/32"	S-1		0-2" Organic TOPSOIL, roots, grass and silt. 2-16" Brown SILT, some fine sand and fill (glass, ash and slag).		SB-194-1 1405	No monitoring well installed
2					16-22" BRICK and tan CLAY, some silt.			
3					22-32" Black to whitish ASH and fine to coarse SAND, some fill (brick, glass, slag and coal fragments).			
4		48/26"	S-2		0-18" Alternating 4-inch layers of gray ash, black tar and red slate/shale, fecal odor, wet at 7-feet (perched).		SB-194-4 1415	
5								
6								
7					18-26" Organic PEAT.			
8		48/32"	S-3		0-32" Tan fine to coarse SAND, some fine gravel, wet at 10-feet.		SB-194-9 1420	
9								
10							▽	
11							SB-194-11 1425	
12					End of Boring @ 12 feet			



Wannalancit Mills
 650 Suffolk Street
 Lowell MA
 Telephone: 978-970-5600
 Fax: 978-453-1995

BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-195 FILTER PACK TYPE NA
 TRC GEOLOGIST J. Saunders SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 8.5
 DATE DRILLED 6/10/2008 TOTAL DEPTH (Feet) 12
 LOCATION East side of 102 Greenwood yard (east of sidewalk/shrubs) GROUND ELEVATION (Feet) 91.60
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD AMS 9100 Track Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-195-1 sampled for PCBs only, (Hold SB-195-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/ TIME	WELL DIAGRAM
1		48/24"	S-1		0-6" Dark-brown organic SILT, some fine sand, trace fill (glass, ash and coal).			No monitoring well installed
2					6-24" Brown fine SAND and FILL material (ash, coal, glass and slag), more coal in bottom 8-inches, very slightly moist, no odor, no staining.		SB-195-1 0855	
3								
4		48/14"	S-2		0-4" Orange to brown fine SAND and FILL material (glass, coal and slag), moist, no odor, no staining.			
5					4-8" Organic SILT (peat), trace fine gravel, moist, no odor, no staining.			
6					8-13" ASH FILL, trace fine gravel, moist, no odor, no staining.			
7					13-14" Organic SILT (peat), moist, no odor, no staining.		SB-195-7.5 0910	
8		48/40"	S-3		0-6" Dark-brown organic SILT (peat).			
9					6-32" Gray to brown SILT, some fine sand, dense, wet, no odor, no staining.		SB-195-9 0915	
10								
11					32-40" Orange to brown fine to medium SAND, some coarse sand, trace fine gravel, wet, no odor, no staining.		SB-195-11 0920	
12					End of Boring @ 12 feet			



Wannalancit Mills
 650 Suffolk Street
 Lowell MA
 Telephone: 978-970-5600
 Fax: 978-453-1995

BORING/WELL CONSTRUCTION LOG

CLIENT/PROJECT NUMBER City of New Bedford/115058 SCREEN TYPE/SLOT NA
 BORING/WELL NUMBER SB-196 FILTER PACK TYPE NA
 TRC GEOLOGIST J. Saunders SEAL TYPE NA
 DRILLING CONTRACTOR/FOREMAN New England Geotech/Bill Meadows DEPTH TO WATER (Approximate Feet) 8
 DATE DRILLED 6/10/2008 TOTAL DEPTH (Feet) 12
 LOCATION East side of 102 Greenwood (northeast corner of yar) GROUND ELEVATION (Feet) 90.96
 SAMPLING METHOD 48" Macrocore REFERENCE ELEVATION (Feet) _____
 DRILLING METHOD AMS 9100 Track Rig
 NOTES Sampled for PCBs, Metals & PAHs, SB-196-1 sampled for PCBs only, (Hold SB-196-8 & SB-196-11)

DEPTH (ft. BGL)	BLOW COUNTS	PEN/REC (INCHES)	CORE #	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	Field Testing (ppm)	SAMPLE ID/TIME	WELL DIAGRAM
1		48/36"	S-1		0-26" Light-brown fine SAND, some silt and medium to coarse sand, trace roots (upper 4-inches), brick and fine gravel, slightly moist, no odor, no staining.		SB-196-1 0925	No monitoring well installed
2								
3					26-36" Light-brown to tan fine SAND, little medium to coarse sand, trace fine gravel, slightly moist, no odor, no staining.		SB-196-3.5 0930	
4		48/40"	S-2		0-40" Tan fine to medium SAND, trace rock fragments, slightly moist to wet at 8-feet, no odor, no staining.			
5								
6								
7								
8		48/24"	S-3		0-24" Tan to gray to brown fine to medium SAND, little silt and fine to medium gravel, wet, no odor, no staining.		SB-196-8 0940	▽
9								
10								
11							SB-196-11 0945	
12					End of Boring @ 12 feet			

APPENDIX B

PCB REMEDIATION NOTIFICATION LETTER



ENVIRONMENTAL STEWARDSHIP DEPARTMENT/

NEW BEDFORD CONSERVATION COMMISSION

CITY OF NEW BEDFORD
SCOTT W. LANG, MAYOR

September 16, 2009

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
1 Congress Street, Suite 1100 - CPT
Boston, MA 02114-2023

RE: Polychlorinated Biphenyl (PCB) Remediation Notification
Related to Residential Building Demolition and Foundation Management
City of New Bedford
101, 102, and 111 Greenwood Street, and 98, 108, and 118 Ruggles Street
New Bedford, Massachusetts 02740

Dear Ms. Tisa:

This letter serves as notification to the United States Environmental Protection Agency (USEPA) that the City of New Bedford (City) is prepared to commence on-site activities related to building demolition at the above mentioned residential locations. The City views the proposed building demolition activities as an interim step toward the implementation of a full remedy for the subject parcels, currently in the planning stage, which will be the subject of subsequent regulatory submittals to the EPA and the Massachusetts Department of Environmental Protection (MassDEP).

The demolition activities were described in the Release Abatement Measure (RAM) Plan prepared by TRC Environmental Corporation (TRC) and submitted to MassDEP on September 9, 2009. That information has been modified by the proposed activities and information provided herein. These changes are in turn reflected in the Modified RAM Plan that will be submitted to MassDEP upon obtaining concurrence from EPA on this letter/notification (a draft of the Modified RAM Plan has been provided to EPA for coordination purposes). The modified RAM plan will be a stand alone document that replaces the September 9, 2009 RAM Plan in its entirety.

The City's knowledge of the nature and extent of soil contamination on these properties is based on technical reports prepared by The BETA Group, Incorporated (BETA) and TRC Environmental Corporation (TRC), specifically:

- *Summary of Analytical Data Volumes I and II, Properties Located on: Greenwood Streets, Ruggles Street, Durfee Street, New Bedford, Massachusetts.* Prepared by BETA Group, Inc., March 15, 2006.
- *Summary of Analytical Data 102 Greenwood Street, New Bedford, Massachusetts.* Prepared by BETA Group, Inc., September 14, 2006.
- *Data Summary Report, 102 Greenwood Street, New Bedford, Massachusetts.* Prepared by TRC Environmental Corporation, July 2008.

The specific activities for which the City seeks EPA's concurrence are as follows:

- Management of concrete foundation materials subject to demolition that may be in contact with potential polychlorinated biphenyl (PCB) contaminated soil that may constitute PCB Remediation Waste; and
- Sampling to evaluate the potential impact of the presence of potential PCB contaminated soil that may constitute PCB Remediation Waste on the regulatory status and management procedures for the foundation materials.

Source removal associated with soil is not proposed at this time, nor is source removal associated with the concrete foundation materials. The plan is to re-use the concrete foundation materials, which will be appropriately processed per long-standing MassDEP policy and as further outlined in the Modified RAM Plan. Small amounts of soil disturbance may take place associated with foundation management and the disconnection of buried utility lines for public safety purposes, but no removal of soil will take place at this time. Any source removal associated with any potential PCB contaminated soil and/or concrete foundation material (if needed/required) that may constitute a PCB Remediation Waste would be addressed in subsequent regulatory submittals as overall remediation activity progresses.

This letter also provides clarification regarding dust monitoring and the decontamination of certain pieces of equipment utilized in the demolition activity, as well as the management of the above-ground swimming pool at 102 Greenwood Street and any other miscellaneous structures that might be present on the properties (e.g., sheds).

Background

The purpose of the modified RAM Plan is to outline the anticipated construction activities (demolition of dwellings at six properties) that will be undertaken by the City at the 101, 102, and 111 Greenwood Street, and 98, 108, and 118 Ruggles Street (hereinafter "Acquired Residential Properties") portion of the Parker Street Waste Site (PSWS) located on the eastern end of Greenwood and Ruggles Streets near or at the intersection of Hathaway Boulevard in New Bedford, Massachusetts.

The construction activities are anticipated to include the installation of a perimeter fence, excavation and immediate replacement of soils to allow for the disconnection of underground dwelling utilities (this does not involve the removal of soil from the properties), demolition of the dwelling structures and disposal of the dwelling debris, demolition and subsequent management of the concrete foundations to a location at or below grade, breaking of the basement slabs to enable drainage, and backfilling of the basement space and/or covering the remaining concrete slab with crushed concrete foundation materials and suitable off-site soil material installed in 1 to 2 foot lifts and establishment of grass cover on an additional 3 to 4 inches of loam. These activities constitute an interim step toward the implementation of a full remedy for the subject parcels that will stabilize this portion of the site in advance of anticipated redevelopment of the properties and eventual regulatory closure. One of the objectives of this RAM Plan is to describe measures that will be taken to minimize soil disturbance to the extent practicable and mitigate potential fugitive dust generation. The City does not plan to remove any soil from the Acquired Residential Properties at this time. Leading up to this

effort, the City performed abatement work to remove hazardous materials identified within the structures including asbestos containing materials, miscellaneous containers of fluids left behind by the former residents, mercury thermostats, and other household items or items associated with the materials of construction.

Technical Approach

The City understands that it is EPA's position that some of the activities related to the above-mentioned demolition activities may be jurisdictional under the EPA's PCB regulations under 40 CFR Part 761. The following information for the six residential properties slated for demolition is provided to facilitate EPA's evaluation of regulatory applicability, particularly with regard to the applicability of the definition of PCB Remediation Waste under 40 CFR Part 761.3.

Location	Number of PCB soil samples	Number of soil samples >50 mg/kg	Max. PCB Conc. (mg/kg)	Depth Detected (feet)	Last Date of Parcel Ownership by City*	Date of Residence Construction
98 Ruggles St.	27	0	13.3	7-10	1954	2000
108 Ruggles St.	75	0	10.33	3-6	1954	2000
118 Ruggles St.	20	1	59.1	2.75-4	1941 1992-1993**	1988
101 Greenwood St.	68	1	976	3-6	1949	2000
102 Greenwood St.	49	1	68.3	2	N/A	1986
111 Greenwood St.	67	0	1.668	3	1949	1965

*. Before the City's recent re-acquisition of the parcels in 2008.

** - Tax title Issues in 1992/1993. The parcel was developed by others as a residence by that time.

N/A - Not applicable. Not in chain of title until acquisition by the City in 2008.

Based on the above information, three of properties each have single detections of PCB soil concentrations in excess of 50 mg/kg (shown in bold face in the above-presented table): 118 Ruggles Street, 101 Greenwood Street, and 102 Greenwood Street. In addition, historical information such as the timeframe for approval and construction of the New Bedford High School (i.e., late 1960s – early 1970s), and thus the closure of the dump, and a detailed review of ownership records, aerial photographs, newspaper articles, historical maps, and a variety of City records indicate that PSWS-related waste disposal activities took place between 1950 and 1954, and that waste disposal activity in the wider PSWS impacted area ceased in the early 1960s. The construction date of the house at 102 Greenwood Street (1965), evidence indicating cessation of waste deposition activity in the early 1960s, and the absence of post-1978 ownership of the Acquired Properties by the City (with the exception of one tax title incident for the residence at 118 Ruggles Street in 1992/1993 and the City's purposeful acquisition of the parcels to facilitate remedial management in 2008) suggest that waste deposition from the PSWS source concluded prior to 1978. Based on these lines of evidence, it is the City's position that the only the contaminated soil at 118 Ruggles Street, 101 Greenwood Street, and 102 Greenwood Street qualify to be regulated as PCB Remediation Waste at this time.

To evaluate if the portions of the foundation in contact with soil and subject to demolition and subsequent management have been impacted by contact with any potential PCB contaminated soil that may constitute a PCB Remediation Waste leading to regulation of foundation materials at those parcels as a PCB Remediation Waste, the City's

environmental contractor will collect samples of concrete at a frequency of one for every ten feet of foundation perimeter in contact with potentially contaminated soil at the 3 residences where PCBs were detected in excess of 50 mg/kg in soil (i.e., 118 Ruggles Street, 101 Greenwood Street, and 102 Greenwood Street). Foundation perimeters for the subject residences range from 112 feet to 128 feet, with an average perimeter of approximately 120 feet. Twelve concrete samples (exclusive of quality control samples) will be collected for PCB Aroclor analysis (SW-846 Method 8082) from each of these residences following the removal of soil particles using conventional dry brushing techniques.

Clarification Regarding Dust Monitoring

Air monitoring will be performed using a combination of real-time dust monitoring upwind and downwind of the work area during building demolition, foundation removal, basement slab breaking, and backfilling activities.

During the excavation for utility disconnection, a minimum amount of soil disturbance is anticipated and may not require dust monitoring. Nonetheless, when potentially contaminated soils are encountered during RAM-related contaminated soil excavation and management activities, and during building demolition, foundation removal, basement slab breaking, and backfilling activities, real-time field screening of breathing zone dust levels will be conducted using direct reading instruments that are designed to monitor air quality on a real-time basis. A second instrument will be used to monitor dust levels downwind of the excavation, while a third instrument will be used to monitor dust levels between the work zone and the nearest property (e.g., residence, school, etc.) regardless of the wind direction.

As set forth in the RAM Plan, the dust monitoring units will be TSI Dustrak™ units, or equivalent, equipment with size-selective inlet for particles of 10 micrometers in diameter or less (PM₁₀). Background samples will be collected for at least 15 minutes at each location prior to the start of site activities. The continuous dust monitor uses a light scattering photometer to quantify particles and converts the counts to a concentration in units of milligrams per cubic meter (mg/m³). This instrumentation has an accuracy of 0.001 mg/m³ (1 ug/m³). The dust monitoring instruments will be placed in weatherproof cases with an omni-directional probe to minimize wind interference. The dust monitoring instruments will be zeroed daily before use and at the end of the day. Data will be logged at 60-second intervals and will be monitored periodically by field personnel during RAM-related excavation activities. Data will be downloaded daily.

If sustained ambient dust levels exceed the EPA National Ambient Air Quality Standard (NAAQS) of 150 µg/m³ at a downwind sampling location and/or at a location between the work zone and the nearest property (a sustained reading would consist of a reading lasting 15 minutes or longer), then dust suppression activities will be increased with a greater usage of water sprays.

The modeling conducted to support the derivation of the 150 µg/m³ dust level indicates that the PCB concentration would need to be at least 2,000 mg/kg in soil or concrete before the EPA Acceptable Long-Term Average Exposure Concentration of 0.3 ug/m³ employed for Keith Middle School (KMS) and New Bedford High School (NBHS)

indoor air monitoring is exceeded. This assumes the PCB concentration is a uniform 2,000 mg/kg and the dust level is sustained. The assumptions and concentration basis are both very conservative; therefore, the action level for real-time dust monitoring is expected to be protective, especially over the short duration of the planned work.

Above-Ground Swimming Pool or Other Miscellaneous Aboveground Structures

The above-ground swimming pool and other miscellaneous aboveground structures will be dismantled and disposed of as solid waste. Pool liner and structure components in contact with potentially contaminated soil that is potentially regulated as a PCB remediation waste will be managed in accordance with 40 CFR Part 761.61(a)(5)(ii) and sampled in accordance with 40 CFR Part 761, Subpart P.

Equipment Decontamination

Equipment that comes into direct contact with soil or concrete determined to be actual or potential PCB Remediation Waste will be decontaminated by one of the following methods:

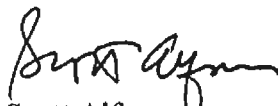
- Self-Implementing Decontamination Procedures, as set forth under 40 CFR Part 761.79(c); or
- Aqueous cleaning followed by verification sampling as set forth under 40 CFR Part 761, Subpart P.

Certification Pursuant to 40 CFR §761.61(a)(3)(i)(E)

I certify that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the above referenced cleanup site, are on file at the offices of TRC Environmental Corporation, Wannalancit Mills, 650 Suffolk Street, Lowell, Massachusetts, and are available for EPA inspection.

If you have any questions, please call me at 508-991-6188.

Very Truly Yours,



Scott Alfonse
Director

cc: Molly Cote, Massachusetts Department of Environmental Protection (by electronic PDF)
David M. Sullivan, LSP, CHMM; TRC (by electronic PDF)
David J. Fredette, P.E.; City of New Bedford (by electronic PDF)

APPENDIX C

ADDENDUM TO PCB REMEDIATION NOTIFICATION LETTER



ENVIRONMENTAL STEWARDSHIP DEPARTMENT/
NEW BEDFORD CONSERVATION COMMISSION

CITY OF NEW BEDFORD
SCOTT W. LANG, MAYOR

TRC Reference Number: 115058

February 17, 2010

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109

RE: Addendum to Polychlorinated Biphenyl (PCB) Remediation Notification Letter
Related to Residential Building Demolition and Foundation Management
City of New Bedford
101, 102 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street
New Bedford, Massachusetts 02740

Dear Ms. Tisa:

This letter serves as a formal addendum to the notification letter submitted to the United States Environmental Protection Agency (EPA) by the City of New Bedford (City) on September 16, 2009 regarding preparations to commence on-site activities related to building demolition at the above referenced residential properties. This addendum seeks to clarify the technical approach that will be utilized with regard to sampling of the existing concrete foundations. The sampling approach detailed herein will be implemented, pending EPA approval of the plan and review of the resulting analytical sampling data, prior to commencing demolition activities at any of the properties. This addendum in no way changes the views and opinions presented in the September 2009 notification letter.

Technical Approach

As detailed in the September 16, 2009 notification letter, the City is prepared to conduct building demolition activities at six recently acquired properties as an interim step toward the implementation of a full remedy for the subject parcels. The City has proposed to collect samples of concrete to evaluate if the portions of the foundation in contact with soil and subject to demolition and subsequent management have been impacted by contact with any potential PCB contaminated soil. Concrete and corresponding soil sampling will be conducted at each of the six dwellings; however, as you know, concentrations of PCBs in soil in excess of 50 milligrams per kilogram (mg/kg), and therefore constituting a PCB Remediation Waste, have historically only been detected at three out of the six dwellings (i.e., 118 Ruggles Street, 101 Greenwood Street and 102 Greenwood Street discussed in this letter). The analytical results of the concrete sampling will be reviewed in consultation with EPA to determine the regulatory status of the foundations at each dwelling.

The proposed sampling will be conducted by the City's environmental contractor on in-place concrete surfaces prior to initiation of building demolition activities. As discussed during the site visit

conducted with you and representatives of TRC Environmental Corporation and its drilling contractor (New England Geotech, LLC) on January 20, 2010, two different sampling approaches will be implemented depending on the depth to which the dwelling's foundation is installed in the surrounding earth, as outlined below:

- **111 Greenwood Street and 118 Ruggles Street.** The dwellings at these locations have deeper foundation systems. At these locations, samples will be collected using horizontal coring and drilling methods from the inside of the building structures, as described herein.
- **101 Greenwood Street, 102 Greenwood Street, 98 Ruggles Street and 108 Ruggles Street.** The dwellings at these locations are typical of raised ranch/spilt entry ranch construction in that their foundations are installed at shallow depths in the surrounding earth. The concrete samples will be collected from the exterior. Adjacent soil samples will be collected in a manner consistent with previously employed hand-tool methods at the site. The sampling of the concrete foundations of these dwellings will be conducted in accordance with the EPA Region I Standard Operating Procedures (SOP) for Sampling Concrete in the Field (December 1, 1997) and more specifically the SOP for Sampling Porous Surfaces for PCBs (Revision 3, July 22, 2008).

In either case, the scope of work will be sufficient to meet the data quality objectives and for determining compliance with the Toxic Substance Control Act (TSCA) PCB Regulations under 40 CFR Part 761.

Interior (Basement) Horizontal Coring Approach

The collection of samples from the two properties with deeper foundations/basements (111 Greenwood Street and 118 Ruggles Street) will proceed by horizontally coring the foundation concrete. The concrete foundations at each of the properties will be sampled at regular intervals. One sample will be collected per ten linear feet of interior basement foundation wall around the entire perimeter of each dwelling. The foundation perimeters for these properties are estimated to be approximately 120 feet on average, requiring approximately twelve concrete samples per property (excluding quality control samples). Prior to sample collection, the foundation perimeter at each dwelling will be measured in the field and the quantity of samples will be adjusted accordingly, either increased or decreased, based on that measurement and site-specific conditions. Each sample location will be pre-marked along the foundation wall to ensure a relatively even distribution of samples.

A concrete coring machine (e.g., Hilti™ drill equipped with 2 or 3 inch diamond bit) will be used to horizontally core the foundation from the interior basement wall to the exterior foundation face. The concrete core will be removed from the foundation and will immediately be inspected for the presence or absence of any surficial weatherproof coating or sealant. If present, the waterproof coating material will be sampled by a qualified person (e.g., Massachusetts certified asbestos investigator/analyst) and analyzed for asbestos (i.e., approximately one sample per foundation wall). However, this will be a separate sampling effort conducted from the exterior, or through the collection of additional cores. It is anticipated that, if present, approximately 4 to 5 samples will be

collected per property for asbestos analysis. It should be noted that foam material installed as an exterior insulation layer may also be present in association with the foundation walls. If present the foam will be sampled for laboratory PCB Aroclor analysis (SW-846 Method 8082). The outer 0.5 inches of the concrete core (i.e., exterior foundation surface in contact with soil, including any waterproof coating) will be removed for laboratory PCB Aroclor analysis (SW-846 Method 8082). The concrete sample may be pulverized on site or submitted to the laboratory for processing, at the option of the sampling team. No attempt to remove any waterproofing coating will be undertaken for samples submitted for PCB analysis. The top 0.5 inch will be submitted in total whether coated or uncoated.

Following removal of the concrete core, a hammer drill will be used to horizontally advance a 2 inch diameter large bore sampling device for the collection of discrete soil samples. The approximately 2 to 3 inches of soil material formerly in contact with the exterior foundation surface will be collected and held by a qualified laboratory for PCB Aroclor analysis (SW-846 Method 8082) contingent upon the analytical results of the adjacent concrete sample. Analysis of soil samples will be authorized if total concentrations of PCB Aroclors detected in the concrete sample exceed 1 mg/kg total PCBs. The soil material will be geologically logged by a qualified person familiar with the site. Sample locations will correspond to a soil depth of approximately 1 foot below ground surface.

Water will be required throughout the coring activities to cool the diamond bit. Any fluids generated during coring activities will be collected using a ShopVac[®] and containerized in 55 gallon drums. The drums will be sealed, marked and temporarily stored onsite pending characterization of the fluids for disposal purposes. All drums will be placed in basins as a secondary containment precaution.

Since the dwellings are expected to be demolished and the foundations below grade crushed to 6-inch minus for on-site reuse, the core holes will not be patched following sampling.

Permanently attached structures with footings likely to extend below ground surface (e.g., stairs, masonry porches, decks, etc.) that cannot be horizontally cored from the interior basement will be sampled consistent with the exterior sampling approach below.

Exterior Sampling Approach

The concrete foundations at each of the four subject properties with shallow foundation systems (101 Greenwood Street, 102 Greenwood Street, 98 Ruggles Street and 108 Ruggles Street) will be sampled at regular intervals. One sample will be collected per ten linear feet of exterior foundation wall around the entire perimeter of each dwelling, including permanently attached structures with footings likely to extend below ground surface (e.g., stairs, masonry porches, decks, etc.). In addition, the detached concrete shed located in the rear of the 111 Greenwood Street property will be subject to sampling. The foundation perimeters for these dwellings are estimated to be approximately 120 feet on average, requiring approximately twelve concrete samples per property (excluding quality control samples). Prior to sample collection, the foundation perimeter at each dwelling will be measured in the field and the quantity of samples will be adjusted accordingly, either increased or decreased, based on that measurement and site-specific conditions. Each sample location will be pre-marked along the foundation wall to ensure a relatively even distribution of samples. Samples of soil material

immediately adjacent to each concrete sample location will be collected concurrently. Please note that due to the presence of existing exterior structures and surfaces (e.g., decks, patios, asphalt driveways, etc.) it may not be feasible to collect concrete and corresponding soil samples in certain locations at exact ten foot intervals. In such instances the sample location will be adjusted to the nearest readily accessible foundation surface to attain an equivalent frequency.

Only those portions of the foundation that are in direct contact with subsurface soil material, and therefore potential PCB Remediation Waste, will be sampled. At each pre-marked sample location, the existing soil material will be temporarily pulled back to expose the surface of the foundation to a depth of approximately two feet below ground surface. A decontaminated shovel or equivalent will be used to pull the soil material away from the foundation wall only to the degree necessary to allow for concrete sample collection. The foundation wall will immediately be inspected for the presence or absence of any surficial weatherproof coating or sealant. If present, the waterproof coating material will be sampled by a qualified person (e.g., Massachusetts certified asbestos investigator/analyst) and analyzed for asbestos. It should be noted that foam material may also be present in association with the foundation wall. If present the foam will be sampled for laboratory PCB Aroclor analysis (SW-846 Method 8082).

Samples of the soil material pulled back from the foundation will be collected from 0 to 1 foot and 1 to 2 feet below ground surface to be held by a qualified laboratory for PCB Aroclor analysis (SW-846 Method 8082) contingent upon the analytical results of the adjacent concrete samples. Analysis of soil samples will be authorized if total concentrations of PCB Aroclors detected in the concrete sample exceed 1 mg/kg total PCBs. The soil material will be geologically logged by a qualified person familiar with the site. It should be emphasized that no demolition or soil excavation activities are proposed for implementation of this scope of work.

Following soil and as needed foam insulation board sampling, the exposed concrete foundation surface will be dry brushed to remove any remaining soil material. The concrete foundation will be sampled from 0 to 0.5-inches below the concrete surface, regardless of the presence of a weatherproofing coating, sealant or foam, using an impact hammer drill or equivalent in accordance with the EPA SOP for Sampling Porous Surface for PCBs (Revision 3, July 22, 2008). Samples will be collected from 0 to 1 foot and 1 to 2 feet below ground surface along the foundation wall. Each concrete sample will be submitted to a qualified laboratory for PCB Aroclor analysis (SW-846 Method 8082). Please note that multiple holes may be drilled in close proximity to one another to generate sufficient volume for analytical testing. Soil material moved by shovel to gain access to the exterior wall for concrete sampling will be replaced following concrete sample collection.

General Sampling Procedures

Representative quality control samples will also be collected during implementation of this scope of work. This will include field duplicate, matrix spike and matrix spike duplicate samples collected at a frequency of one per twenty samples. For core sampling, matrix spike and matrix spike duplicate samples may need to be collected from additional cores advanced at adjacent locations.

All sampling equipment will be decontaminated prior to use and between each discreet sample in accordance with the EPA SOP for Sampling Porous Surface for PCBs (Revision 3, July 22, 2008) and self-implementing decontamination procedures as set forth under 40 CFR Part 761.79(c)(2)(ii). This includes a detergent and water wash, water rinse and hexane rinse. Equipment may also be wiped with a hexane soaked cloth as needed. A flow chart outlining the decontamination procedures is attached to this addendum.

Waste generated during the sampling event, including that generated as a result of decontamination procedures, will be handled and disposed of in accordance Federal, State and Local regulations. Non-liquid waste materials (e.g., PPE, rags, gloves, brushes, etc.) will be managed in accordance with 40 CFR Part 761.61(a)(5)(v). Liquid waste, specifically water generated during coring activities and associated with decontamination procedures, will be managed per 40 CFR Part 761.79(b)(ii) and 761.79(b)(iii), with a decontamination standard for water of less than 3 ug/L PCBs for discharge to navigable waters or treatment works and less than 0.5 ug/L PCBs for unrestricted reuse. Evidence of an appropriate permit will be obtained from the City prior to discharge of any wastewater to the treatment works. For wastewater greater than 3 ug/L PCBs, an appropriately licensed waste hauler will be contracted for the disposal of the spent decontamination fluids. A flow chart outlining the waste management and pollution prevention procedures is attached to this addendum.

The sampling will be performed in accordance with TRC's site-specific health and safety plan (HASP) which outlines the anticipated hazards associated with above referenced properties.

Conclusion

The City anticipates that the concrete foundation, soil and as needed waterproof coating and insulating foam sampling will begin as soon as possible following your concurrence on this sampling plan and no demolition will start prior to implementation of this sampling. The City understands that based upon the results of this sampling program, EPA approval of the demolition plan may be required. The sampling plan described herein is designed to help facilitate demolition activities in support of an interim step toward a full remedy for the subject parcels. The full remedy will be the subject to subsequent regulatory submittals to the EPA and the Massachusetts Department of Environmental Protection (MassDEP).

If you have any questions concerning this letter, please do not hesitate to contact me at 508-991-6188.

Sincerely,



Scott Alfonse
Director

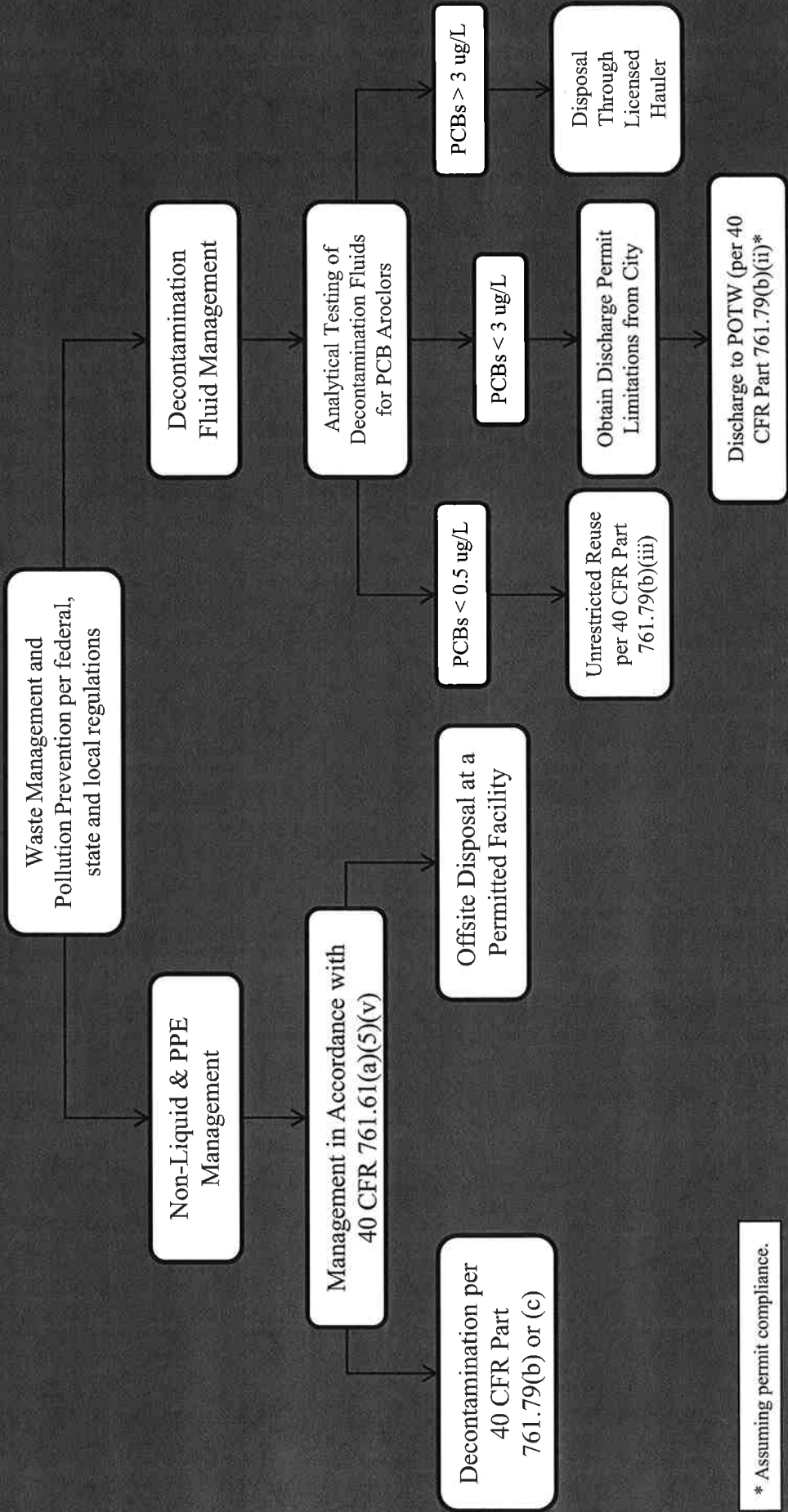
cc. Molly Cote, Massachusetts Department of Environmental Protection (by electronic PDF)
Cheryl Henlin, City of New Bedford (by electronic PDF)
David M. Sullivan, LSP, CHMM, TRC (by electronic PDF)

Attachments

- Flow Chart -- Waste Disposal Procedures
- Flow Chart -- Decontamination Procedures

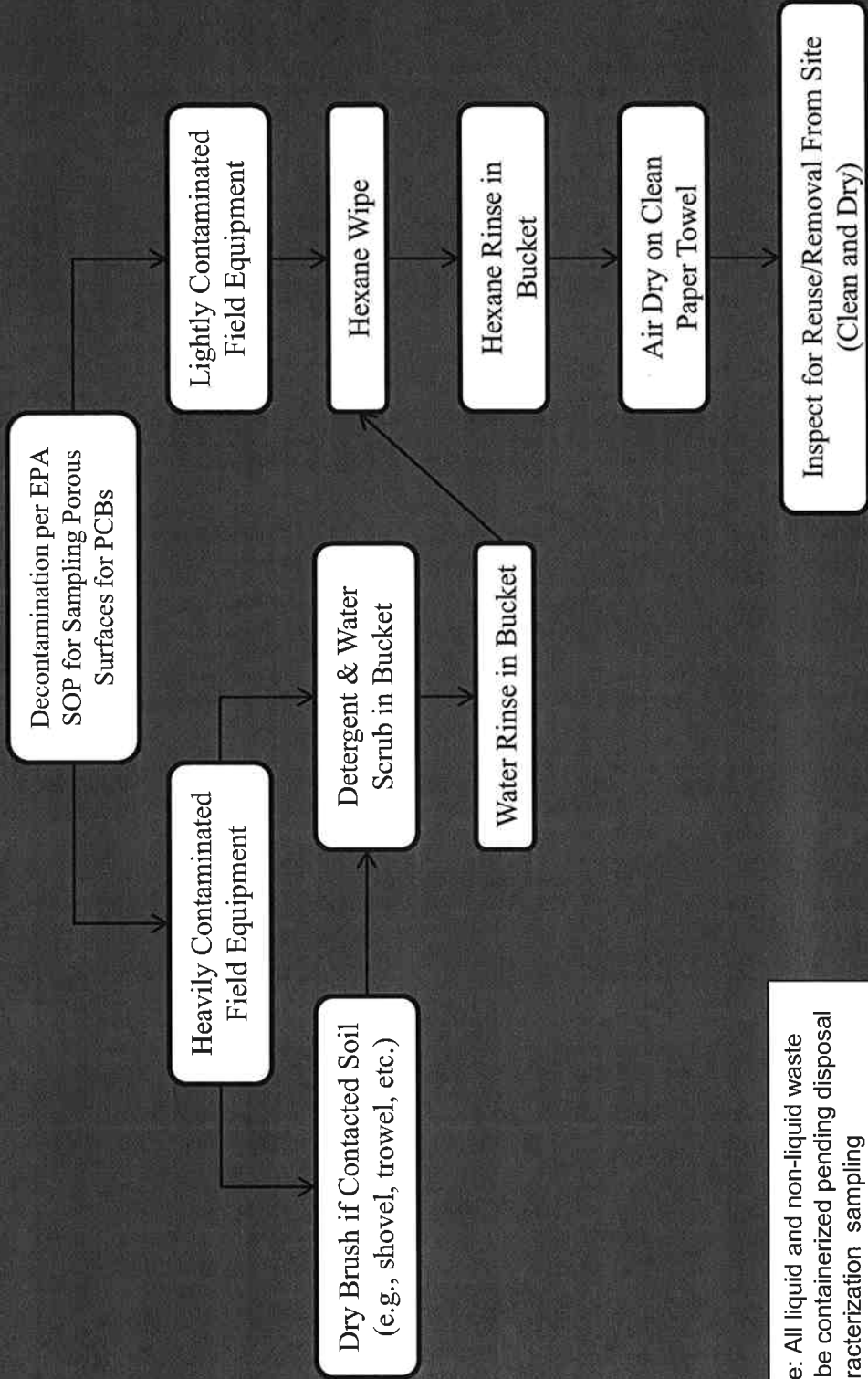


Flow Chart Waste Disposal Procedures - Residential Concrete Sampling



* Assuming permit compliance.

Flow Chart Decontamination Procedures - Residential Concrete Sampling



Note: All liquid and non-liquid waste will be containerized pending disposal characterization sampling

APPENDIX D

FOUNDATION SAMPLING RESULTS
MEMORANDUM

TRC
Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854

Main 978-970-5600
Fax 978-453-1885

Memorandum

To: Kimberly N. Tisa, United States Environmental Protection Agency
From: David M. Sullivan, LSP, CHMM, TRC Environmental Corporation
Subject: Residential Foundation Sampling Results
Acquired Residential Properties
New Bedford, Massachusetts
Date: May 18, 2010
CC: Scott Alfonse, City of New Bedford, Department of Environmental Stewardship
Cheryl Henlin, City of New Bedford, Department of Environmental Stewardship
Molly Cote, Massachusetts Department of Environmental Protection
John Mulhall, Malcolm Beeler, TRC Environmental Corporation

The purpose of this memorandum is to transmit the tabulated polychlorinated biphenyl (PCB) data obtained from the foundation sampling effort conducted at the Acquired Residential Properties in New Bedford, Massachusetts. The Acquired Residential Properties include the following:

- 101 Greenwood Street
- 102 Greenwood Street
- 111 Greenwood Street
- 98 Ruggles Street
- 108 Ruggles Street
- 118 Ruggles Street

TRC Environmental Corporation (TRC) performed sampling of concrete and exterior foundation foam insulation from the subgrade foundations of these residences per the City of New Bedford's February 17, 2010 letter to the United States Environmental Protection Agency. Sampling was conducted between March 8, 2010 and April 1, 2010.

The data collected are summarized on the enclosed Tables 1 through 6. Note that the designation "C" in the sample identification denotes concrete, "F" denotes foam board, and "S" denotes soil. The approximate sampling locations are illustrated in Figure 1 and Figure 2.

Eight concrete samples, all from 102 Greenwood Street, had PCB concentrations greater than 1 milligram per kilogram (mg/kg). The PCB detections greater than 1 mg/kg ranged in concentration from 1.25 mg/kg to 182 mg/kg. TRC conducted supplemental sampling of concrete in four locations

approximately 0.5 feet above the soil grade in the vicinity of these detections and all results above the soil grade were non-detect.

Four foundation exterior foam samples collected from 118 Ruggles Street detected PCBs at concentrations above 1 mg/kg. The concentrations in these foam samples ranged from 1.26 mg/kg to 2.88 mg/kg. Adjacent soil samples collected from three locations detected PCBs at concentrations ranging from 1 mg/kg to 5.89 mg/kg. All concrete samples collected from 118 Ruggles Street were non-detect.

PCBs were not detected in any other samples collected from concrete above 1 mg/kg.

Note that TRC also sampled the foundation coatings found on the exterior of the foundations for asbestos content. The foundation coating does not contain asbestos.

We look forward to discussing the results with you at your earliest convenience.

Table 1
Summary of PCB Results for Concrete Samples -- March 2010
101 Greenwood Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date:	RD-19-C		RD-20-C		RD-21-C		RD-22-C		RD-23-C		RD-24-C		RD-25-C		RD-26-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
		TSCA																
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.0500 U	0.0667 U	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.106 J	0.256 J	0.235 J	0.241 J	0.591 J	0.444 J	0.0500 U	0.204 J	0.0500 U	0.0763 J	0.0576 U	0.0703 J	0.0500 U	0.0500 U	0.133 J	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0752 U	0.0500 U	0.0751 U	0.132 J	0.0921 J	0.0500 U	0.0812 U	0.0500 U	0.0657 U	0.0576 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.106 J	0.256 J	0.235 J	0.241 J	0.723 J	0.5361 J	0.0500 U	0.204 J	0.0500 U	0.0763 J	0.0576 U	0.0703 J	0.0500 U	0.0500 U	0.133 J	0.0500 U

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date:	RD-27-C		RD-28-C		RD-29-C		RD-30-C		RD-31-C		RD-32-C		RD-33-C		
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	
			3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
		TSCA															
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0728 J	0.115 J	0.211 J	0.255 J	0.118 J	0.506 J	0.174 J	0.445 J	0.541 J	0.553 J	0.127 J	0.137 J	0.183 J	0.390 J	0.390 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0728 J	0.115 J	0.211 J	0.255 J	0.118 J	0.506 J	0.174 J	0.445 J	0.541 J	0.553 J	0.127 J	0.137 J	0.183 J	0.390 J	0.390 J

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date:	RD-34-C				RD-35-C			
			0-1	0-1	1-2	1-2	0-1	0-1	1-2	1-2
			3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010
		TSCA		Field Dup		Field Dup		Field Dup		Field Dup
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0941 J	0.0810 J	0.116 J	0.0865 J	0.0500 U	0.135 J	0.176 J	0.148 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0941 J	0.0810 J	0.116 J	0.0865 J	0.0500 U	0.135 J	0.176 J	0.148 J

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in **Bold and shaded type** exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 2
Summary of PCB Results for Concrete Samples -- March and April 2010
102 Greenwood Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-88-C		RD-89-C		RD-90-C		RD-91-C		RD-92-C		RD-93-C		RD-94-C	RD-94-CR	RD-95-C		
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0.5 ^(a)
			3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	3/19/2010	3/19/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Aroclor 1254	1	0.143 J	0.139 J	0.252 J	0.189 J	0.266 J	0.275 J	0.332 J	0.146 J	0.0782 J	0.0743 J	0.758 J	0.117 J	0.180 J	0.263 J	0.329 J	4.79 J	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.200 U	0.0500 U
	Total PCBs	1	0.143 J	0.139 J	0.252 J	0.189 J	0.266 J	0.275 J	0.332 J	0.146 J	0.0782 J	0.0743 J	0.758 J	0.117 J	0.180 J	0.263 J	0.329 J	4.79 J	0.0500 U

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-96-C			RD-97-C			RD-98-C			RD-99-C		RD-100-C		RD-101-C		RD-102-C
			0-1	1-2	0.5 ^(a)	0-1	1-2	0.5 ^(a)	0-1	1-2	0.5 ^(a)	0-1	1-2	0-1	1-2	0-1	1-2	0-1
			3/19/2010	3/19/2010	4/1/2010	3/19/2010	3/19/2010	4/1/2010	3/19/2010	3/19/2010	4/1/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010
PCBs (mg/kg)	Aroclor 1016	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	5.39 J	12.4 J	0.0500 U	32.9 J	182 J	0.0500 U	10.1 J	81.3 J	0.0500 U	0.703 J	0.633 J	0.239 J	1.25 J	0.485 J	0.769 J	0.402 J
	Aroclor 1260	1	0.150 U	0.500 U	0.0500 U	1.00 U	4.50 U	0.0500 U	0.500 U	2.00 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	5.39 J	12.4 J	0.0500 U	32.9 J	182 J	0.0500 U	10.1 J	81.3 J	0.0500 U	0.703 J	0.633 J	0.239 J	1.25 J	0.485 J	0.769 J	0.402 J

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-103-C		RD-104-C		RD-105-C	
			0-1	1-2	0-1	1-2	0-1	1-2
			3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0660 J	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0836 J
	Aroclor 1260	1	0.0500 U	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0660 J	0.0500 UJ	0.0500 U	0.0500 U	0.0500 U	0.0836 J

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in **Bold and shaded type** exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 3
Summary of PCB Results for Concrete Samples -- March 2010
111 Greenwood Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:	RD-01-C	RD-02-C	RD-03-C	RD-04-C	RD-05-C	RD-06-C	RD-07-C	RD-08-C	RD-09-C	RD-10-C	RD-11-C	RD-12-C		RD-13-C	RD-14-C		
		Sample Depth (ft.):	1	1	1	1	1	1	1	1	1	1	1	1	0-1	1-2	1	0-1	1-2
		Sample Date:	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010
		TSCA																	
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0850 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Analysis	Analyte	Sample ID:	RD-15-C		RD-16-C		RD-17-C	RD-18-C	RD-36-C	RD-37-C	
		Sample Depth (ft.):	0-1	1-2	0-1	1-2	0-1	0-1	0-1	0-1	1-2
		Sample Date:	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
		TSCA	Shed								
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Notes:

mg/kg - milligrams per kilogram or parts per million (ppm).

J - Estimated value.

U - Compound was not detected at specified quantitation limit.

UU - Estimated non-detect.

Values in **Bold** indicate the compound was detected.

Values shown in **Bold and shaded type** exceed one or more of the listed criteria.

PCBs - Polychlorinated Biphenyls.

TSCA - Toxic Substances Control Act criteria.

(a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 4
Summary of PCB Results for Concrete Samples – March 2010
98 Ruggles Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date:	RD-71-C		RD-72-C		RD-73-C		RD-74-C	RD-75-C	RD-76-C		RD-77-C		RD-78-C		RD-79-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	0-1	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010
		TSCA																
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0801 J	0.239 J	0.0500 U	0.0987 J	0.0500 U	0.115 J	0.0500 U	0.0500 U	0.0646 J	0.217 J	0.118 J	0.248 J	0.170 J	0.404 J	0.253 J	0.291 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0801 J	0.239 J	0.0500 U	0.0987 J	0.0500 U	0.115 J	0.0500 U	0.0500 U	0.0646 J	0.217 J	0.118 J	0.248 J	0.170 J	0.404 J	0.253 J	0.291 J

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date:	RD-80-C		RD-81-C		RD-82-C		RD-83-C		RD-84-C		RD-85-C		RD-86-C		RD-87-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010
		TSCA																
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.375 J	0.217 J	0.181 J	0.161 J	0.277 J	0.255 J	0.109 J	0.256 J	0.156 J	0.102 J	0.117 J	0.303 J	0.195 J	0.0500 U	0.0500 U	0.0903 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0619 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.375 J	0.217 J	0.181 J	0.161 J	0.277 J	0.255 J	0.109 J	0.256 J	0.156 J	0.102 J	0.117 J	0.303 J	0.195 J	0.0500 U	0.0500 U	0.0903 J

Notes:

- mg/kg - milligrams per kilogram or parts per million (ppm).
- J - Estimated value.
- U - Compound was not detected at specified quantitation limit.
- UJ - Estimated non-detect.
- Values in **Bold** indicate the compound was detected.
- Values shown in **Bold and shaded type** exceed one or more of the listed criteria.
- PCBs - Polychlorinated Biphenyls.
- TSCA - Toxic Substances Control Act criteria.
- (a) - Sample of concrete was from 0.5 feet above the ground surface.

Table 5
Summary of PCB Results for Concrete Samples -- March 2010
108 Ruggles Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-54-C				RD-55-C		RD-56-C		RD-57-C		RD-58-C		RD-59-C		RD-60-C	
			0-1	0-1	1-2	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2
			3/12/2010	3/12/2010 Field Dup	3/12/2010	3/12/2010 Field Dup	3/12/2010	3/12/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Analysis	Analyte	Sample ID: Sample Depth (ft.): Sample Date: TSCA	RD-61-C		RD-62-C		RD-63-C		RD-64-C		RD-65-C		RD-66-C		RD-67-C	RD-68-C	RD-69-C		RD-70-C	
			0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	1-2	0-1	0-1	0-1	1-2	0-1	1-2
			3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/17/2010	3/17/2010	3/17/2010
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U

Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UU - Estimated non-detect.
Values in **Bold** indicate the compound was detected.
Values shown in Bold and shaded type exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.

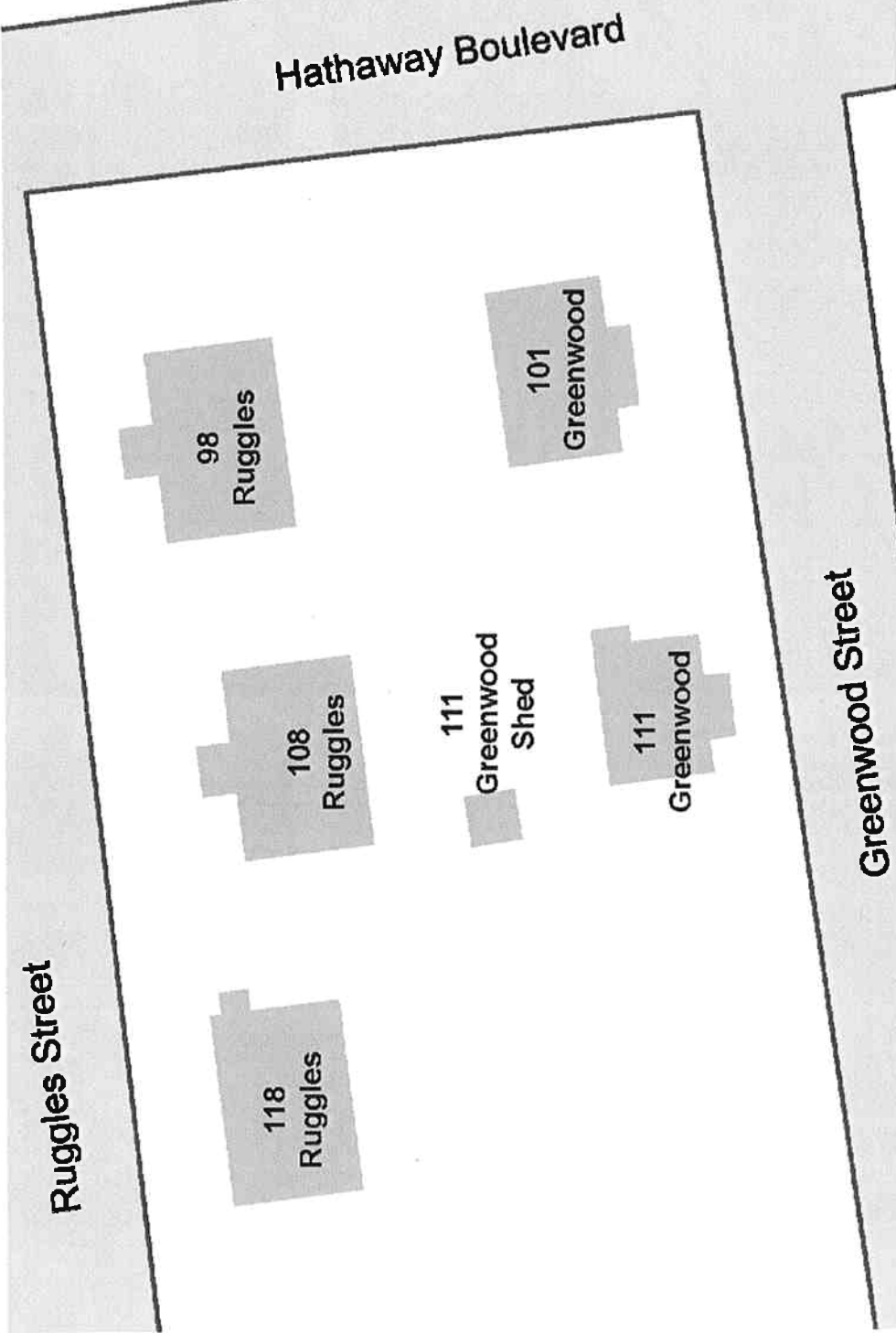
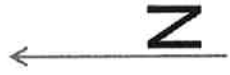
Table 6
Summary of PCB Results for Concrete, Foam and Soil Samples – March and April 2010
118 Ruggles Street
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:	RD-38-C	RD-38-F	RD-39-C	RD-39-F	RD-40-C	RD-40-F	RD-40-S	RD-41-C	RD-41-F	RD-42-C	RD-42-F	RD-42-S	RD-43-C	RD-43-F	RD-44-C	RD-45-C	
		Sample Depth (ft.):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Sample Date:	3/11/2010	3/11/2010	3/11/2010	4/1/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/1/2010	3/11/2010	3/11/2010
		TSCA																	
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1221	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1232	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1242	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1248	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.0588 UJ	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1254	1	0.0500 U	0.583 J	0.0500 U	0.747 U	0.0500 U	1.26 J	0.806 J	0.0500 U	2.88 J	0.0500 U	1.62 J	1.12 J	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Aroclor 1260	1	0.0500 U	0.197 U	0.0500 U	0.747 U	0.0500 U	0.272 U	0.194 J	0.0500 U	0.412 U	0.0500 U	0.343 U	0.0572 UJ	0.0500 U	0.0885 U	0.0594 U	0.0500 U	
	Total PCBs	1	0.0500 U	0.583 J	0.0500 U	0.747 U	0.0500 U	1.26 J	1.00 J	0.0500 U	2.88 J	0.0500 U	1.62 J	1.12 J	0.0500 U	0.0885 U	0.0594 U	0.0500 U	

Analysis	Analyte	Sample ID:	RD-45-F	RD-46-C	RD-46-F	RD-47-C	RD-47-F	RD-48-C	RD-48-F	RD-48-S	RD-49-C	RD-49-F	RD-50-C	RD-50-F	RD-51-C	RD-51-F	RD-52-C	RD-52-F	
		Sample Depth (ft.):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Sample Date:	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010
		TSCA																	
PCBs (mg/kg)	Aroclor 1016	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1221	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1232	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1242	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1248	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Aroclor 1254	1	0.511 J	0.0500 U	0.507 J	0.0500 U	0.606 J	0.0500 U	1.26 J	5.89 J	0.0500 U	0.107 U	0.0500 U	0.494 J	0.0500 U	0.544 J	0.0500 U	0.651 J	
	Aroclor 1260	1	0.116 U	0.0500 U	0.0796 U	0.0500 U	R	0.0500 U	R	0.203 UJ	0.0500 U	0.107 U	0.0500 U	R	0.0500 U	R	0.0500 U	0.217 U	
	Total PCBs	1	0.511 J	0.0500 U	0.507 J	0.0500 U	0.606 J	0.0500 U	1.26 J	5.89 J	0.0500 U	0.107 U	0.0500 U	0.494 J	0.0500 U	0.544 J	0.0500 U	0.651 J	

Analysis	Analyte	Sample ID:	RD-53-C			
		Sample Depth (ft.):	0-1	0-1	1-2	1-2
		Sample Date:	3/12/2010	3/12/2010	3/12/2010	3/12/2010
		TSCA		Field Dup	Field Dup	
PCBs (mg/kg)	Aroclor 1016	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1221	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1232	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1242	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1248	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Aroclor 1254	1	0.0500 U	0.0500 U	0.0800 J	0.0861 J
	Aroclor 1260	1	0.0500 U	0.0500 U	0.0500 U	0.0500 U
	Total PCBs	1	0.0500 U	0.0500 U	0.0800 J	0.0861 J

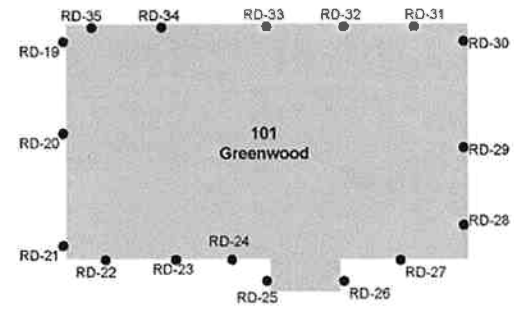
Notes:
mg/kg - milligrams per kilogram or parts per million (ppm).
J - Estimated value.
U - Compound was not detected at specified quantitation limit.
UJ - Estimated non-detect.
Values in Bold indicate the compound was detected.
Values shown in Bold and shaded type exceed one or more of the listed criteria.
PCBs - Polychlorinated Biphenyls.
TSCA - Toxic Substances Control Act criteria.
(a) - Sample of concrete was from 0.5 feet above the ground surface.



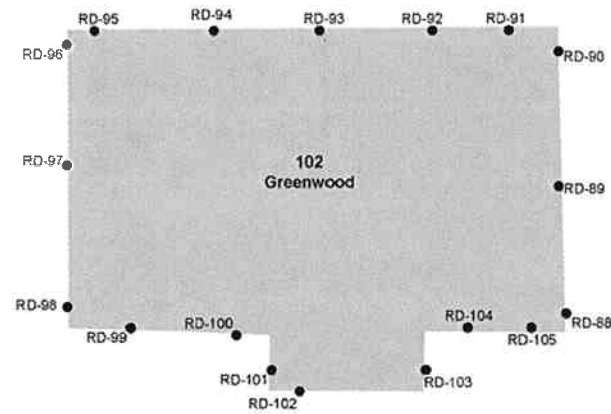
RESIDENTIAL FOUNDATION SAMPLING LOCATION NEW BEDFORD, MASSACHUSETTS	
SAMPLING LOCATION OVERVIEW	
 Wannancit Mills 650 Suffolk Street Lowell, MA 01854 (978) 970-5600	FIGURE 1
	DRAWN BY: ASW DATE: MAY 2010 CHECKED BY: JCM

NOT TO SCALE

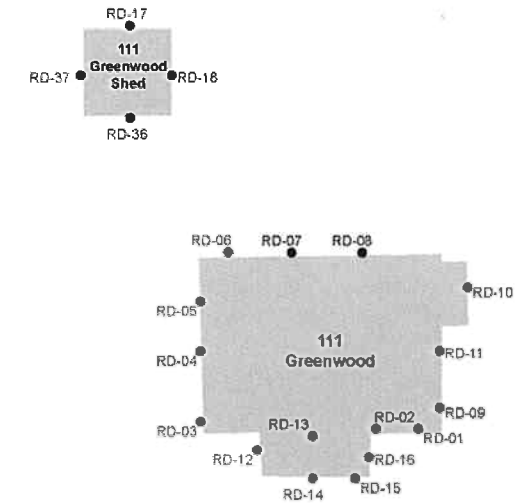
101 Greenwood Street



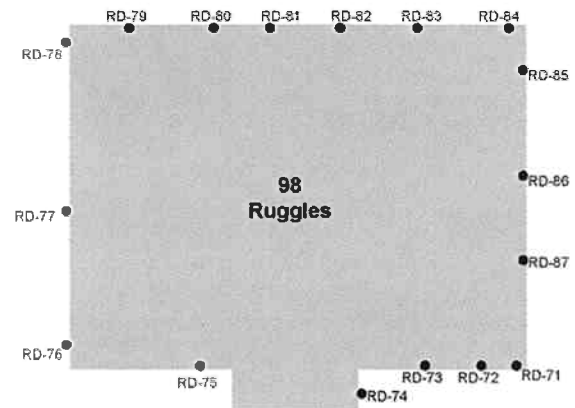
102 Greenwood Street



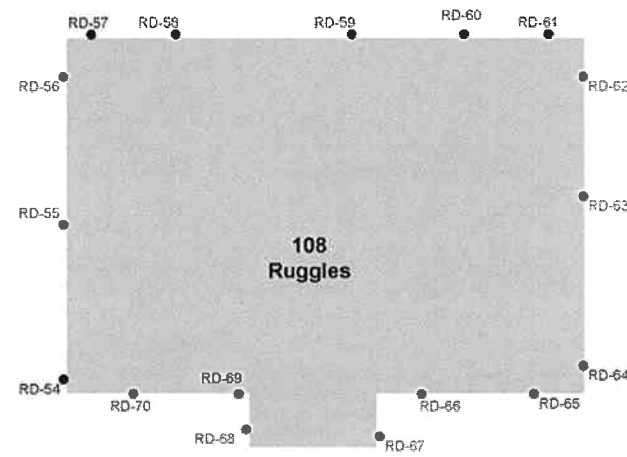
111 Greenwood Street



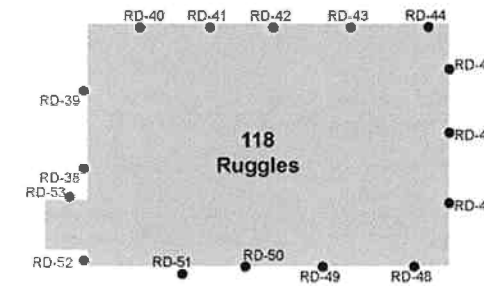
98 Ruggles Street




108 Ruggles Street



118 Ruggles Street



FILE: T:\E_CAD\115056\RESIDENT LOCUS.dwg

RESIDENTIAL FOUNDATION SAMPLING PROGRAM NEW BEDFORD, MASSACHUSETTS		FIGURE 2
INDIVIDUAL SAMPLING LOCATIONS		
		Wannalancit Mills 650 Suffolk Street Lowell, MA 01854 (978) 970-5600
DRAWN BY: ASW CHECKED BY: JCM	DATE: MAY 2010	

NOT TO SCALE

APPENDIX E

UPDATED CITY OF NEW BEDFORD DEMOLITION PLAN SUMMARY



CITY OF NEW BEDFORD
SCOTT W. LANG, MAYOR

REVISED DEMOLITION PLAN (101, 102 and 111 Greenwood Street; 98, 108 and 118 Ruggles Street) July 2010

Work completed or in progress in advance of demolition:

1. The City of New Bedford's Inspectional Services Department issued demolition permits.
2. A pre-demolition audit was conducted to identify asbestos containing materials (ACM) and other potentially hazardous materials, such as mercury thermostats, paints, pesticides, fertilizer, and cleaning products.
3. The ACM were removed and disposed of by a licensed asbestos abatement contractor.
4. Other potentially hazardous materials were removed and disposed of by a licensed hazardous materials contractor.
5. Verizon, Comcast, NStar Electric, and NStar Gas, removed and/or decommissioned their utility services to each of the houses.
6. Pest extermination was performed. However, due to the length of time that has elapsed since the 2009 extermination, another round of extermination was conducted in June 2010.
7. TRC Environmental Inc. prepared a Release Abatement Measure (RAM) Plan to cover the work involved in the demolition project that was submitted to the Massachusetts Department of Environmental Protection (MassDEP) on September 9, 2010. The RAM Plan was subsequently modified and submitted to MassDEP on September 17, 2010. A Revised Modified RAM Plan was made available for a 20-day public comment period starting June 9, 2010, and submitted to MassDEP on July 6 2010.
8. TRC Environmental Inc. as well as the Department of Public Infrastructure (DPI) have prepared Health and Safety Plans to be implemented as required during the demolition work.
9. DPI constructed a temporary chain link fence along the property boundaries of 102 Greenwood St. One access gate is located at the driveway. DPI also constructed one continuous chain link fence around the five properties on Greenwood and Ruggles Streets (101 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street). One access gate is located at the driveway of 101 Greenwood St. Silt fence and hay bales were installed down gradient of the perimeter fence to control runoff.
10. TRC Environmental Inc. collected concrete samples from the foundations of all of the houses to help evaluate regulatory requirements.

Proposed schedule of demolition work:

Work beginning July 2010 and continuing through August 2010 (approximately 5 weeks total).

Tasks describing the proposed general flow of work (Note: Some overlap and interchanging possible depending on when resources are available or as task components are completed):

Task 1 Scheduled July 15th through July 23rd

1. **Staging of the work area at 102 Greenwood Street:** DPI will stage roll-off containers for debris loading and hauling in the driveway and on steel plates on the property. The excavator will remain on steel plates as much as possible during demolition to avoid disturbing soil around the house. This method will be typical for the entire project. Prior to demolition, debris around the yard and the pool will be removed. Shrubs and trees requiring removal will be cut to ground level and removed.
2. **Staging of the work area at Greenwood and Ruggles Street Block:** Steel plates will be placed to cover grass surfaces from the Hathaway Boulevard access to 118 Ruggles Street. The steel plates will be used to stage roll-off containers for debris loading and hauling. Additional steel plates will be positioned as needed to ensure the excavator remains on steel plating as much as possible to avoid disturbing the soil around each house. Prior to demolition, debris in the yards will be removed. Fences between dwellings will be removed. Shrubs and trees requiring removal will be cut to ground level and removed.

Task 2 Scheduled July 19th through July 30th

Demolition at 102 Greenwood Street: Roll-off containers will be staged as needed on the driveway and on steel plates on the property. A track mounted excavator will be used to demolish non-foundation components of the house and load the roll-off. Roll-off containers will be exchanged as needed. Full roll-off containers of non-foundation demolition waste will be hauled to New Bedford Waste Services for disposal. Upon completing demolition of the house and deck, the concrete foundation will then be broken up as necessary for off-site transport and disposal consistent with regulatory approvals. The basement space will be filled/covered with crushed concrete foundation materials suitable for on-site recycling and with appropriately documented clean fill material screened in advance for the presence of regulated compounds. The water and sewer services for the lot will be decommissioned along with this demolition work. The sewer line will be capped at the property line. The water line will be shut-off at the property line and disconnected at the main.

1. **Dust Mitigation and Monitoring:** Dust suppression, consisting of water spray fed by hose connection to a nearby hydrant, will be used. TRC Environmental Inc. will use dust monitoring equipment continuously during demolition operations. Roll-off containers will be covered before leaving the site.
2. **Backfill and Restoration:** Upon completion of the demolition, clean backfill material will be delivered to the site via the paved driveway and dumped adjacent to the excavated area. Delivery trucks will be kept on the driveway or on steel plates. DPI will use the excavator to spread and grade the backfill material in 1-foot to 2-foot lifts and will compact using mechanical compaction. DPI will place and

compact sufficient backfill to bring the excavation to existing finish grade surrounding the excavated area. DPI will cover the disturbed area with approximately 3-inches to 4-inches of loam.

3. **Debris Control and Equipment Decontamination:** DPI will decontaminate equipment that comes in contact with potentially impacted soil consistent with regulatory approvals and otherwise conduct work in a manner to ensure soil is not tracked off site.
4. **Final Grading of Loam and Seeding:** After equipment is removed, loam will be fine graded by hand. All disturbed areas will be hydroseeded. DPF will water the disturbed areas until grass begins to grow. The silt fence and hay bales will be left in place until the grass is established, and silt fence will later be removed by DPF.
5. **Property Maintenance:** DPF will cut the grass at these six properties up to twice a month once the new grass is established through the end of the growing season (October). This schedule may be adjusted based on rainfall (i.e. drier conditions will not promote growth). The City will inspect properties weekly (Dept. of Environmental Stewardship) and remove noted debris (DPF).

Task 3 Scheduled July 21st through August 20th

Demolition at Greenwood and Ruggles Street Block: Roll-off containers will be staged as needed on steel plates. A track mounted excavator will be used to demolish non-foundation components of the houses and load the roll-offs. Roll-off containers will be exchanged as needed. Full roll-off containers will be hauled to New Bedford Waste Services for disposal. Upon completing demolition of the houses and decks, the concrete foundations will be crushed to a 6-inch minus size to a location at or below grade. DPI will attempt to remove foam board from the exterior of the foundation at 118 Ruggles Street in order to dispose of the foam board off-site consistent with regulatory approvals. If DPI is not able to readily separate the foam board from the foundation, the foundation may be broken up as necessary for off-site transport and disposal. The basement space/slab will be filled/covered with crushed concrete foundation materials and with appropriately documented clean fill material screened in advance for the presence of regulated compounds. Where the concrete foundation materials are deemed suitable for on-site recycling, the basement slabs in each dwelling will be sufficiently broken (6-inch minus) using the excavator to enable drainage and will be left in place. The water and sewer services for these lots will be decommissioned along with this demolition work. The sewer line will be capped at the property line. The water line will be shut-off at the property line and disconnected at the main.

1. **Dust Mitigation and Monitoring:** Dust suppression, consisting of water spray fed by hose connection to a nearby hydrant, will be used. TRC Environmental Inc. will use dust monitoring equipment continuously during demolition operations. Roll-off containers will be covered before leaving the site.
2. **Backfill and Restoration:** Upon completion of the demolition, clean backfill material will be delivered to the site via the steel plates and dumped adjacent to the excavated area. Delivery trucks will be kept on steel plates. DPI will use the excavator to spread and grade the backfill material in 1-foot to 2-foot lifts and will compact using mechanical compaction. DPI will place and compact sufficient backfill to bring the excavation to existing finish grade surrounding the excavated area. DPI will cover the disturbed area with approximately 3-inches to 4-inches of loam.
3. **Debris Control and Equipment Decontamination:** DPI will decontaminate equipment that comes in contact with potentially impacted soil consistent with regulatory approvals and otherwise conduct work in a manner to ensure soil is not tracked off site.

4. **Final Grading of Loam and Seeding:** After equipment is removed, loam will be fine graded by hand. All disturbed areas will be hydroseeded. DPF will water the disturbed areas until grass begins to grow. The silt fence and hay bales will be left in place until the grass is established, and silt fence will later be removed by DPF.
5. **Property Maintenance:** DPF will cut the grass at these six properties up to twice a month once the new grass is established through the end of the growing season (October). This schedule may be adjusted based on rainfall (i.e. drier conditions will not promote growth). The City will inspect properties weekly (Dept. of Environmental Stewardship) and remove noted debris (DPF).

ADDITIONAL NOTES PERTAINING TO DEMOLITION;

1. Typical hours of operation: Monday through Friday 7:30 AM to 4:00 PM.
2. All dates are approximate, subject to weather and availability of qualified personnel.
3. Demolition work will be limited to clear dry days or light rain.
4. Decontamination will be conducted in accordance with regulatory approvals.
5. Heavy equipment is expected to remain on site throughout the demolition period.
6. Backfill material will be tested before being used onsite.
7. DPI will provide a street sweeper as needed.
8. During demolition work, parking along the perimeter of the work site areas will be restricted as needed to prevent access problems. "No Parking" signs will be posted.
9. Shrubs and trees requiring removal will be cut to ground level and removed.
10. The above-ground swimming pool and other miscellaneous aboveground structures will be dismantled and disposed of as solid waste. Pool liner and structure components in contact with potentially impacted soil that is potentially regulated as a PCB remediation waste will be managed in accordance with regulatory approvals.
11. The demolition will be conducted under a MassDEP Revised Modified Release Abatement Measure (RAM) Plan and an EPA notification. Where an inconsistency is identified between this Revised Demolition Plan and the aforementioned documents, the Revised Modified RAM Plan and/or EPA Notification approval shall take precedence. In addition, if any changes or conditions are encountered that may require further regulatory approval, notification, and/or clarification, the City will notify the relevant regulatory authorities as soon as possible.

APPENDIX F

SOIL MANAGEMENT PLAN

SOIL MANAGEMENT PLAN (REVISED)

Greenwood Street and Ruggles Street Buildings Demolition Activity

**101, 102, and 111 Greenwood Street, and 98, 108, and 118
Ruggles Street**

New Bedford, Massachusetts

Release Tracking Number 4-15685

Prepared for:

City of New Bedford
133 William Street
New Bedford, Massachusetts 02740

Prepared by:

TRC
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854

July 2010
Revision 2.0

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1.0 INTRODUCTION

The City of New Bedford Massachusetts (the “City”) plans to demolish six dwellings at 101, 102, and 111 Greenwood Street and 98, 108, and 118 Ruggles Street (hereinafter “Acquired Residential Properties”) located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Boulevard in New Bedford, Massachusetts (the “Site”). The construction activities will be conducted pursuant to the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) and related policies/guidance and will include, but may not be limited to the following:

- Installation of a black, metal, chain link security fence on the perimeter of the parcels (completed in September 2009 as part of site preparation activity), to remain in place through the completion of activities described in the Revised Modified RAM Plan and until such time that a complete remedy is implemented;
- Removal of trees and shrubs only as needed to facilitate site access (to the degree feasible trees and shrubs will be left in place to help maintain the privacy of the abutting properties);
- Excavation and immediate replacement of soils to allow for the disconnection of underground utilities and concrete foundation and footing removal;
- Demolition of the dwelling structures and off-site disposal of the non-foundation dwelling debris (aside from the concrete and/or foam insulation foundation materials);
- Removal, segregation and off-site disposal of sub-grade foam insulation material at the 118 Ruggles Street Property (or disposal of the foam and concrete where the foam cannot be readily separated from the foundation);
- Demolition and on-site management of the concrete foundations to a location at or below grade at each of the Acquired Residential Properties (except the 102 Greenwood Street parcel where the entire concrete foundation is to be removed for off-site disposal);
- Breaking the basement slabs to facilitate post-demolition drainage at each of the Acquired Residential Properties (except the 102 Greenwood Street parcel where the entire concrete foundation is to be sent off-site for disposal);
- Demolition and off-site disposal of concrete foundation and basement slab material from the 102 Greenwood Street Property;
- Backfilling of the basement space/covering the basement slab with crushed concrete foundation material deemed suitable for on-site recycling and with documented contaminant-free fill material analyzed in advance for the presence of regulated contaminants (or contaminant-free fill material only in the case of 102 Greenwood Street);
- Removal of an above-ground swimming pool at one residence and other potential miscellaneous aboveground structures such as sheds (incidental soil disturbance may occur during this work, but will not entail excavation); and
- Minimal temporary soil stockpiling and stockpile management during activities that require excavation of soil (such as utility disconnection activities and incidental soil disturbance during concrete foundation and footing removal).

The City does not plan on any soil removal and/or disposal. However, the City views the proposed building demolition activities as an interim step toward the implementation of a full remedy for the subject parcels, currently in the planning stage, which will be the subject of subsequent regulatory submittals to the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP).

The soil associated with the limited excavation activities may contain concentrations of polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and heavy metals above MCP Method 1 S-1 soil cleanup levels. The Revised Modified RAM Plan in which this revised Soil Management Plan (revised SMP) document is contained as an appendix provides a summary of soil analytical data collected during investigative work and figures summarizing the soil quality on a map for each location. Available soil borings can also be reviewed in appendices to the Revised Modified RAM Plan. The Revised Modified RAM Plan also contains a summary of the concrete, sub-grade foam insulation and soil data collected during the foundation investigative work completed in March and April, 2010. A figure depicting the foundation sampling locations is also provided.

This revised SMP is intended to provide the City and/or Contractor with generic information regarding the requisite soil management requirements. These procedures are also designed to ensure that soil that is encountered at the Site is managed in a manner that is protective of human health, safety, public welfare and the environment, as required by the MCP. Due to the depth of most of the excavations and proximity to site groundwater it is anticipated that groundwater management needs for this work are relatively limited. A Commonwealth of Massachusetts Licensed Site Professional (LSP) has been retained by the City to oversee the soil management activities during Site construction activities to ensure compliance with the applicable provisions of the MCP and related MassDEP policies and guidance.

Other construction activities will be performed that require disposal of materials other than soils. The structures will be demolished by the City's Department of Public Infrastructure (DPI), and the demolition materials (aside from sub-grade concrete and foam insulation materials) will be placed directly into roll off containers. The demolition waste will then be disposed of at a permitted off-site construction and demolition waste facility. Upon completion of the demolition of the structures, the concrete foundation walls will be crushed on-site to a location at or below grade at four of the six Acquired Residential Properties (i.e., 101 and 111 Greenwood Street and 98 and 108 Ruggles Street parcels). Utilizing an excavator with an appropriate attachment (e.g., concrete "nibbler"), the building foundation walls will be crushed on-site such that the maximum length of the largest dimension of any piece of concrete will be less than six inches. All of the crushed material will be used as fill in the basement void and/or to cover the remaining basement slab consistent with the MassDEP policy for asphalt pavement, brick and concrete recycling operations detailed in 310 CMR 16.05(3)(e).

As detailed in the Revised Modified RAM Plan, due to concentrations of PCBs in excess of 50 milligrams per kilogram (mg/kg) in foundation concrete at the 102 Greenwood Street Property, the concrete foundation walls and basement slab will be demolished and broken up as necessary to facilitate off-site transportation and disposal. The sub-grade concrete foundation at the 102 Greenwood Street Property constitutes a PCB Remediation Waste leading to regulation of

foundation materials as a PCB Remediation Waste greater than 50 parts per million (ppm). The entire concrete foundation and basement slab material will be loaded directly into lined roll-offs and transported off-site for disposal to a chemical waste landfill conforming to the requirements of 40 CFR part 761.75 following approval by the EPA. Approximately 1,300 cubic feet (approximately 97 tons) of concrete material will be removed from the 102 Greenwood Street parcel.

Four exterior foam insulation samples collected from the foundation of the 118 Ruggles Street Property exhibited concentrations of PCBs in excess of 1 mg/kg. As a result, if feasible, the foam insulation material will be removed from the concrete foundation for disposal as PCB Remediation Waste less than 50 mg/kg. The foam insulation will be loaded directly into lined roll-offs and transported off-site for disposal at a Subtitle D landfill permitted to take PCB Remediation Waste less than 50 mg/kg following approval by the EPA. Approximately 216 cubic feet of sub-grade foam material will be removed from the 118 Ruggles Street parcel.

Concrete samples collected from the 118 Ruggles Street Property did not indicate the detection of total PCBs in excess of 1 mg/kg. As a result, the concrete foundation walls and basement slab can be demolished to a location at or below grade consistent with MassDEP policy if removal of the foam insulation from the concrete foundation is feasible. If removal of the foam insulation is deemed to be infeasible, the combined foam insulation and concrete material will be transported off-site for disposal as PCB Remediation Waste less than 50 mg/kg. The combined concrete and foam insulation will be broken up, loaded directly into lined roll-offs and transported off-site for disposal at a permitted facility following EPA approval. Concrete foundation and/or basement slab material not associated with sub-grade foam insulation would be subject to on-site recycling consistent with MassDEP policy as described above.

1.1 Contact Information

The owner (the "Owner") of the project is:

City of New Bedford
133 William Street
New Bedford, Massachusetts 02740
Contact: Ms. Cheryl Henlin
(508) 961-4576

The Owner's LSP for this project is:

David M. Sullivan, LSP, CHMM
LSP License Number: 1488
TRC Environmental Corporation
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854
(978) 656-3565

1.2 Roles and Responsibilities

The City and/or its Contractor will furnish all labor, equipment and materials required to complete the work including soil excavation, stockpiling, dust control, and off-site transportation of soil and structure demolition materials (concrete foundation and sub-grade foam insulation material) from the Site. The City and/or its Contractor will also be responsible for obtaining all necessary Federal, state and local permits required for this work (e.g., Dig-Safe[®] and other necessary permits that may be required by the City).

The City and its Contractor will not be responsible for obtaining approval from MassDEP Bureau of Waste Site Cleanup (BWSC), as required by the MCP at 310 CMR 40.0443, to implement this work. The LSP and/or the LSP's designee (hereafter referred to collectively as "the LSP") will be responsible for obtaining regulatory approval under the MCP and EPA regulations to implement the proposed construction activities. The LSP will periodically inspect the construction activities to ensure consistency with the Revised Modified RAM, this revised SMP document, applicable MCP and MassDEP policies and applicable EPA regulations. Specifically, the LSP's role will include, but may not be limited to, inspection and oversight of the following activities:

- Structure demolition
- Soil excavation
- Soil sampling
- Stockpiling/temporary roll-off containment
- On-site concrete foundation recycling
- Foam insulation removal
- As needed loading of soil, concrete and/or foam insulation material
- As needed off-site transportation of soil, concrete and/or foam insulation material
- MCP and EPA related decontamination activities

Where necessary, the LSP will also collect samples required to pre-characterize excavation area soils (as needed), or other materials (concrete foundation and sub-grade foam insulation material), and characterize soil for off-site disposal (if any) and will procure the required laboratory analyses of these samples.

The LSP will prepare and sign MCP Bills of Lading (BOLs) and/or Material Shipping Records (MSR) required for the off-site shipment of excavated soil from the Site. The Contractors will be responsible for preparing any Hazardous Waste Manifests, if needed, for the off-site transportation and disposal of any soil or other materials that meet the regulatory criteria for classification as a Hazardous Waste.

In addition, in accordance with the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (29 CFR 1910.120 and 1926.65), the LSP will prepare a Site-specific Health and Safety Plan (HASP) for this project for the protection of TRC personnel. The HASP will specify proper health and safety procedures to be implemented, and the necessary personal protective equipment to be used to protect workers from exposure to contaminated soil and groundwater during excavation. The

Contractor will prepare a separate HASP prior to initiating work and must adhere to the requirements of that HASP during performance of the work. The Contractor's employees assigned to the Site should have, at a minimum, 40-hour OSHA HAZWOPER training, and current 8-hour OSHA HAZWOPER refresher training as appropriate. The Contractor's on-site foreman responsible should also have OSHA Site Supervisor Training.

1.3 Existing Site Conditions

The Acquired Residential Properties portion of the Site is located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Boulevard in New Bedford, Massachusetts. The Site is bordered to the north by a vacant lot, to the east by a New Bedford High School parking lot, to the south by a church and residential properties, and to the west by residential properties.

The Site currently consists of unoccupied former single family dwellings. The Site is relatively level with a gentle slope up to the west on some lots. Historically the Site consisted of open space, which was variously filled by ash-laden waste materials sometime prior to development as housing.

In Massachusetts, the excavation and management of contaminated soil at disposal sites is regulated by the MCP. The purpose of the MCP is "to provide for the protection of health, safety, public welfare and the environment" by instituting a uniform mechanism for identifying contaminated soils and implementing appropriate response actions.

1.3.1 Release Abatement Measure (310 CMR 40.0440)

Certain construction and/or remediation related excavation activities at the Site will be performed as a RAM in accordance with the provisions of the MCP at 310 CMR 40.0440. A RAM Plan has been prepared by the LSP and submitted to MassDEP prior to initiating excavation activities. The RAM Plan describes the planned soil excavation activities, identify the threat of release conditions and describe response actions. The soil management procedures outlined in Section 2.0 of this document will form the basis of the RAM. Throughout the course of the construction activities, the LSP may also prepare RAM Status Reports for submission to MassDEP as required by the MCP.

1.3.2 On-Site Crushing Procedures for Asphalt, Brick and Concrete Waste (310 CMR 16.00)

The Solid Waste Regulations and supporting policies establish requirements and procedures for on-site recycling of asphalt pavement, brick and concrete (i.e., the "ABC" policy"). The Revised Modified RAM Plan describes the planned concrete crushing and recycling activities.

1.3.3 Management Procedures for Remediation Waste (310 CMR 40.0030)

The MCP establishes requirements and procedures for the management of remediation waste including contaminated media and debris and non-containerized waste. This section of the MCP also outlines procedures for documenting and tracking any off-site transportation and disposal of regulated soil from a disposal site using a MCP BOL. The BOL requirements and procedures

will apply to any contaminated soils transported from the Site, provided the soils are not otherwise characterized as hazardous waste pursuant to 310 CMR 30.000, the *Massachusetts Hazardous Waste Regulations*.

1.3.4 Interim Waste Management Policy for Petroleum-Contaminated Soils (WSC-94-400)

This policy outlines management practices for reuse, recycling, disposal, storage and transport of petroleum-contaminated soils, and presents related guidance. The policy's goals include encouraging management practices that provide for the destruction of volatile organic compounds (VOCs) or minimize the potential for migration/release of contaminants, and encouraging recycling of contaminated soils (e.g., asphalt batch recycling). The policies include guidelines for testing, storage, reuse/recycling, and establish acceptance criteria at recycling facilities.

1.3.5 Reuse and Disposal of Contaminated Soil at Massachusetts Landfills (COMM-97-001)

This policy outlines procedures for reuse or disposal of contaminated soils at Massachusetts-permitted landfills. The policy includes guidelines for testing, transport, record keeping, reporting, and establishes acceptance criteria for lined and unlined landfills.

1.3.6 Bill of Lading (BWSC Forms 012A, 012B and 012C)

The BOL tracks the transportation and final disposition of Remediation Wastes generated during the performance of response actions under the MCP. BOLs may be used to record the shipment of contaminated soil from the Site to a reuse, recycle and/or disposal facility approved by the Owner and LSP. BOLs will be stamped and signed by the LSP.

1.3.7 Hazardous Waste Manifest

A Hazardous Waste Manifest is a MassDEP-approved form used to track the origin, quantity, composition, transportation and final destination of hazardous waste. Hazardous Waste Manifests should be utilized for shipping of any wastes subject to the Massachusetts Hazardous Waste Regulations (310 CMR 30.000). The Contractor will prepare any Hazardous Waste Manifest required for transport of the materials from this Site. The hazardous waste disposal facility to be used for disposal of any such material will be subject to approval by the Owner and/or LSP. Other requirements apply as described in 310 CMR 30.310. It is not anticipated that the generation of hazardous waste will be a part of this project.

Note that the reference to MassDEP policies COMM-97-001 and WSC-94-400 does not preclude the use of out-of-state facilities that offer similar reuse (e.g., landfill daily cover) or recycling (e.g., asphalt batch) opportunities. Such opportunities may be evaluated and/or utilized on a case-by-case basis assuming facility acceptance criteria can be met and the facility is currently within its regulatory jurisdiction for the reuse and/or recycling services provided.

1.3.8 40 CFR Part 761

Certain EPA regulations address the management of PCB contaminated soil and other materials (concrete foundation and sub-grade foam insulation). Approval from EPA for the activities described in the Revised Modified RAM Plan, insofar as EPA's jurisdiction extends, has been sought by the City and will be implemented on a case by case basis.

Based on laboratory analytical results detailed in the Revised Modified RAM Plan, sub-grade concrete foundation material at the 102 Greenwood Street Property and sub-grade foam insulation material located at the 118 Ruggles Street Property constitute PCB Remediation Waste pursuant to EPA's PCB regulations under 40 CFR Part 761 and require management as such. Concrete foundation material at the 102 Greenwood Street Property will be managed as PCB Remediation Waste in excess of 50 mg/kg. The concrete foundation and basement slab material will be broken up, loaded directly into line roll-offs and transported off-site for disposal to a chemical waste landfill conforming to the requirements of 40 CFR Part 761.75 following EPA approval.

The sub-grade foam insulation material at the 118 Ruggles Street Property constitutes PCB Remediation Waste less than 50 mg/kg. If feasible, the foam insulation material will be removed from the concrete foundation, loaded directly into lined roll-offs and transported off-site for disposal at a Subtitle D landfill permitted to take PCB Remediation Wastes less than 50 mg/kg following EPA approval. The concrete foundation would then be subject to demolition and on-site recycling pursuant to MassDEP policy. If removal of the foam insulation from the concrete foundation is deemed to be infeasible (adhered to the concrete foundation such that removal is impossible and/or time prohibitive), the combined foam insulation and concrete material will be loaded directly into lined roll-offs and transported off-site for disposal as PCB Remediation Waste less than 50 mg/kg.

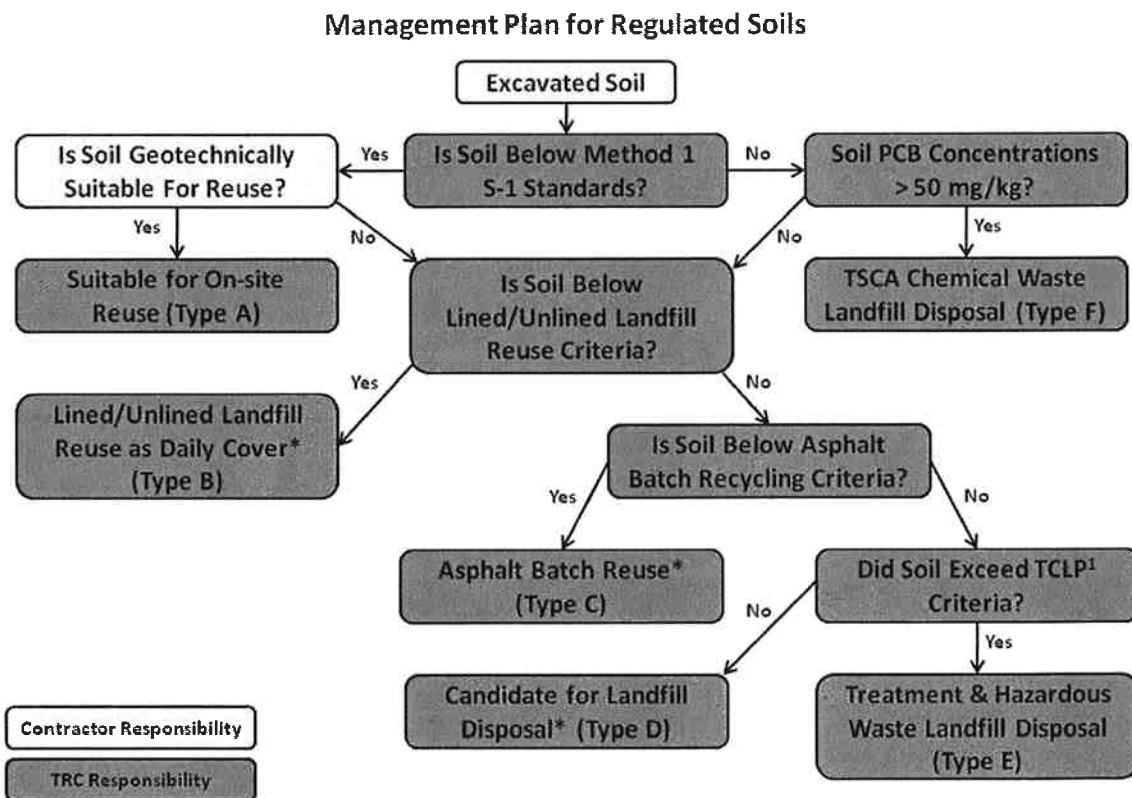
As detailed in the Revised Modified RAM Plan, equipment that comes into direct contact with soil, concrete or foam insulation material determined to be actual or potential PCB Remediation Waste will be decontaminated in accordance with methods described in the Revised Modified RAM Plan. The City has coordinated in advance with the EPA to help ensure expectations are met during demolition activities. The City has proposed a prescriptive decontamination approach per 40 CFR Part 761.79(c)(2)(ii) that will avoid delays due to laboratory turn-around for verification wipe samples. The actual procedures implemented will be documented in the RAM Status and/or Completion Report, but will rely on the swabbing of moveable equipment, tools and sampling implements that have contacted PCBs/PCB Remediation Waste with a solvent.

Regardless of the selected decontamination method, tools, moveable equipment, and sampling implements that comes into direct contact with soil, concrete or foam insulation determined to be actual or potential PCB Remediation Waste will be decontaminated prior to leaving the Site. This includes implementing decontamination procedures prior to moving equipment between the 102 Greenwood Street Property and the other Acquired Residential Properties. For consistency, these procedures will also be implemented at the properties where PCB Remediation Wastes are not an issue.

2.0 EXCAVATION OVERSIGHT

TRC personnel will provide periodic oversight during construction activities when soil is being excavated, backfilled, transported, or when excavation dewatering activities are occurring. The soil oversight personnel will be screening soil with pre-characterization analytical data and providing as needed clarification regarding the soil category to the Contractor to ensure soil is segregated to the appropriate stockpile pending final reuse, recycling and/or disposal determinations.

It is currently anticipated that the limited amount of soil to be excavated during disconnection of site underground utilities and incidentally disturbed during removal of the concrete foundations and associated footings, which will be utilized to backfill the excavations. Typical soil management options for a construction project at a listed Disposal Site may include on-site reuse; off-site reuse/recycling; disposal at an approved and appropriately licensed non-hazardous waste, lined or unlined landfills; and disposal at an approved and appropriately licensed hazardous waste landfill. The determination of the reuse, recycling, or disposal option for soils from different portions of the excavation will consider physical and chemical characteristics of the soil and the reuse capacity within the construction project, as shown in the following flow diagram:



¹ - TCLP = Toxicity Characteristic Leaching Procedure

* - Indicates that alternate disposal methods may become available based on changes in Site conditions and/or additional waste characterization data

Typical soil management options for a construction project at a listed Disposal Site may allow soil to be returned to the approximate location from which it came (i.e., excavation for disconnection of underground utilities and incidental displacement of soil during removal of the concrete foundation and associated footings) providing that it is chemically and geotechnically suitable for reuse as backfill, with the geotechnical suitability determined by the construction Contractor and/or project Architect/Engineer. Chemical suitability is determined by the LSP. Soil that is suitable for on-site reuse may be returned directly to the excavation or stockpiled for later reuse in a nearby location. Soil that has been deemed unsuitable for reuse on-site will be segregated and stockpiled for off-site management (off-site reuse and/or disposal).

Removal of an above-ground swimming pool at one residence and other potential miscellaneous aboveground structures such as sheds (incidental soil disturbance may occur during this work, and related activities, but will not entail excavation).

2.1 Soil Classification

It is currently anticipated that no soil will be displaced during Site construction activities. However, if required, soil displaced by construction activities will be classified by the following criteria. If the criteria are not in agreement, then the classification will be made based on the highest ranked factor.

- 1) Pre-characterization data;
- 2) Physical observations of ash-bearing “fill” material; and
- 3) Physical observations of other anthropogenic “fill” material.

Soil at a listed Disposal Site displaced by Construction Activities may be segregated into one or more of the following classifications:

- Type A – Pre-characterized soils for reuse on-site; excess Type-A soil also suitable for off-site reuse as cover material at a lined or unlined landfill facility. On-site reuse is restricted to the location from which the soils were excavated. Any other placement requires prior approval of the LSP;
- Type B – Suitable for unlined or lined landfill re-use (chemically unsuited for reuse on-site) may also include soils suitable treated to allow for unlined and lined landfill re-use;
- Type C – Suitable for asphalt batch recycling (geotechnically unsuited for reuse on-site and/or chemically unsuited for reuse on-site or off-site);
- Type D – Non-hazardous waste landfill disposal (chemically unsuited for on or off-site reuse, and off-site recycling); and
- Type E – Soil requiring segregation and off-site treatment prior to disposal as a hazardous waste.
- Type F – Soil requiring disposal at TSCA chemical waste landfill

The above outlined classification process is expected to produce the following five soil types:

Type A soils – Soil eligible for reuse on-site.

Type B soils have been characterized as unsuitable for on-site reuse or the soil may be geotechnically unsuitable for on-site reuse as deemed by the Contractor. These soils can be transported off-site for reuse as cover material at a lined or unlined landfill facility (depending upon acceptance criteria comparisons). If these soils indicate concentrations below their applicable off-site facility acceptance criteria, they will be segregated and transported off-site for re-use at a lined or unlined landfill facility.

Type C soils are unsuitable for reuse on-site. These soils are suitable for recycling at an off-site asphalt batch facility.

Type D soils are unsuitable for on- or off-site reuse and off-site recycling. These soils do not indicate a failure of Toxicity Characteristic Leachate Procedure (TCLP) analysis. Therefore, these soils may be segregated and transported off-site for disposal at a non-hazardous waste landfill.

Type E soils have been characterized as unsuitable for reuse on-site. These soils failed TCLP analysis and will need to be segregated for off-site disposal as hazardous waste.

Type F soils have been characterized as unsuitable for reuse on-site. These soils contain concentrations of PCBs greater than 50 mg/kg and will need to be segregated for off-site disposal at a TSCA chemical waste landfill.

Soil type determinations will be made by the LSP following the collection of suitable characterization data.

3.0 ON-SITE SOIL MANAGEMENT

It is currently anticipated that the limited amount of soil to be excavated during disconnection of site underground utilities and removal of concrete foundations and associated footings, will be temporarily stockpiled adjacent to the limited excavation, and utilized to backfill the excavations upon completion of the disconnection of underground utilities and removal of the foundation. The soil will be returned to the excavation in the order it was removed, to the extent practicable.

3.1 On-Site Stockpile Disposition

Where stockpiling is required, the on-site stockpiles will be staged on polyethylene sheeting (minimum 6-mil thickness) and covered with sheeting at all times with exception of periods when adding or removing soil to or from the piles. The stockpiles should be designed such that storm water runoff does not impact the soil and any water draining from the soil does not migrate from the polyethylene sheeting to the ground surface. The stockpiles shall be inspected and estimates of total volumes made on a daily basis. If roll-offs will be used, they will be lined with polyethylene and covered to prevent leakage and storm water accumulation. Soil may be stockpiled at an alternative City owned location at the discretion of the City consistent with the MCP (310 CMR 40.0000) and related MassDEP policies.

3.2 Off-Site Reuse, Recycling and/or Disposal

Excavated soil that will be transported from the Site, if any, will be characterized as appropriate for off-site disposal at a suitable facility. Several suitable off-site facilities are being considered, but the facility locations have not been finalized. The laboratory results of pre-characterization sampling will be used for off-site disposal characterization to the extent possible. The existing Site data will be supplemented as necessary to satisfy facility-specific acceptance criteria. The sample laboratory data will be compared soil data against Massachusetts reuse, recycle, and disposal criteria in accordance to MassDEP Policy# COMM-97-001 and Interim Policy #WSC-94-400.

Transportation of all materials from the site will be performed using a MassDEP Bill of Lading (BOL), Material Shipping Record (MSR) or Hazardous Waste Manifest, as appropriate, and will be performed within 120 days of stockpiling in accordance with 310 CMR 40.0030 of the MCP.

3.3 Decontamination of Vehicles Transporting Soils

Vehicles used for demolition will rest on street plates to minimize disturbance to site soils. In the event vehicle decontamination is required, soils and mud will be removed from vehicles prior to their departure from the Site. A decontamination pad will be constructed by the Contractor prior to soil removal activities. The method of soil removal will likely be a combination of brushing the wheels to remove loose soils and/or passing vehicles through a decontamination station. Vehicles that come into contact with soil determined to be actual or potential PCB Remediation Waste will be decontaminated by one of the methods referenced in 40 CFR Part 761. Any liquids generated by vehicle decontamination will be drummed and transported off-site

for disposal. Any decontamination arrangements will be conducted consisted with the Revised Modified RAM Plan.

In addition, the Contractor shall be responsible for ensuring that tracking of potentially contaminated soil onto public roadways is prevented.

3.4 Supplementary Stockpile Characterization

Prior to transport and disposal of stockpiled soils, soils stockpiled for disposal will be evaluated to determine whether sufficient analytical data is available to satisfy the requirements of the selected disposal or recycling facility. As deemed necessary, soil samples will be collected and analyzed according to the analytes and the sampling frequency specified by the selected disposal facility.

The City, at its option, may stockpile soils displaced by the project, if any, at the Shawmut Avenue Transfer Station.

APPENDIX G

**MASSDEP ON-SITE RUBBLE CRUSHING
NOTIFICATION**



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
On-Site Rubble Crushing Notification Form
 Submitted in Compliance with 310 CMR 16.05(3)(e)6

INSTRUCTIONS: This form can be used to satisfy the notification requirements for on-site ABC rubble crushing. Complete and mail this form at least 30 days prior to crushing ABC rubble. Send one copy each to the appropriate MassDEP regional office and to the board of health in the municipality where crushing will take place.

A. Notifier Information

Important:
 When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



City of New Bedford
 Company or Individual Name
133 William Street
 Street Address
New Bedford MA 02740
 City/Town State Zip Code
Cheryl Henlin (508) 961-4576
 Contact Person Contact Telephone
Cheryl.Henlin@newbedford-ma.gov
 Contact Email Address

Mailing Address (if different from above)

Street Address/P.O. Box
City/Town State Zip Code

B. Project Information

Location Where Rubble Will be Generated & Crushed (if different from above)

101, 102, & 111 Greenwood Street and 98, 108, & 118 Ruggles Street
 Street Address
New Bedford City/Town
 City/Town

Brief Description of Project

Demolition of six single family residential dwelling structures including limited crushing (to 6 inch minus size) of existing foundation walls and basement slabs that will be included as backfill within the basement areas. A portion of the foundation at 102 Greenwood Street will be removed for off-site disposal.

Was an asbestos survey conducted? Yes No

Was an asbestos abatement action taken and completed? Yes No

As required by 310 CMR 16.05(3)(e)6, I am providing 30 days prior notice that asphalt, brick or concrete rubble will be crushed in accordance with the requirements of 310 CMR 16.05(3)(e).

Crushing will commence at the location above on: 06/30/2010
 Approximate Date (MM/DD/YYYY)
 Crushing will continue for approximately this length of time: 14
 Approximate Number of Days



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
On-Site Rubble Crushing Notification Form
Submitted in Compliance with 310 CMR 16.05(3)(e)6

C. Notification & Certification

I am providing a copy of this form to the following
MassDEP Regional Office:

- Central (Worcester)
 Northeast (Wilmington)
 Southeast (Lakeville)
 Western (Springfield)

I am providing a copy of this form to the Board of Health in
the following municipality (where crushing will take place):

New Bedford
Name of City or Town

I believe the rubble to be crushed is asbestos free; not
painted, coated or impregnated with any substance; and
otherwise in compliance with 310 CMR 16.05(3)(e).

Cheryl Henlin
Signature

Cheryl Henlin
Name

Environmental Planner
Title

05/24/2010
Date (MM/DD/YYYY)

APPENDIX H

EXCERPTS FROM 40 CFR PART 761

§761.79

40 CFR Ch. I (7-1-05 Edition)

(1)(i) Has a waste management permit or other decision or enforcement document which exercises control over PCB wastes, issued by EPA or an authorized State Director for a State program that has been approved by EPA and is no less stringent in protection of health or the environment than the applicable TSCA requirements found in this part; or

(ii) Has a PCB waste management permit or other decision or enforcement document issued by a State Director pursuant to a State PCB waste management program no less stringent in protection of health or the environment than the applicable TSCA requirements found in this part; or

(iii) Is subject to a waste management permit or other decision or enforcement document which is applicable to the disposal of PCBs and which was issued through the promulgation of a regulation published in Title 40 of the Code of Federal Regulations.

(2) Complies with the terms and conditions of the permit or other decision or enforcement document described in paragraph (b)(1) of this section.

(3) Unless otherwise waived or modified in writing by the EPA Regional Administrator, complies with §761.75(b); §761.70(a)(1) through (a)(9), (b)(1) and (b)(2), and (c); or the PCB storage requirements at §§761.65(a), (c), and (d)(2), as appropriate.

(4) Complies with the reporting and recordkeeping requirements in subparts J and K of this part.

(c) A person conducting research and development (R&D) into PCB disposal methods (regardless of PCB concentration), or conducting PCB remediation activities may apply for a TSCA PCB Coordinated Approval. The EPA Regional Administrator may approve the request if the EPA Regional Administrator determines that the activity will not pose an unreasonable risk of injury to health or the environment and the person:

(1)(i) Has a permit or other decision and enforcement document issued or otherwise agreed to by EPA, or permit or other decision and enforcement document issued by an authorized State Director for a State program that has been approved by EPA, which exercises control over the management of PCB

wastes, and that person is in compliance with all terms and conditions of that document; or

(ii) Has a permit, which exercises control over the management of PCB wastes, issued by a State Director pursuant to a State PCB disposal program no less stringent than the requirements in this part.

(2) Complies with the terms and conditions of that permit or other decision and enforcement document.

(3) Complies with the reporting and recordkeeping requirements in subparts J and K of this part.

[63 FR 35456, June 29, 1998]

§761.79 Decontamination standards and procedures.

(a) *Applicability.* This section establishes decontamination standards and procedures for removing PCBs, which are regulated for disposal, from water, organic liquids, non-porous surfaces (including scrap metal from disassembled electrical equipment), concrete, and non-porous surfaces covered with a porous surface, such as paint or coating on metal.

(1) Decontamination in accordance with this section does not require a disposal approval under subpart D of this part.

(2) Materials from which PCBs have been removed by decontamination in accordance with this section may be distributed in commerce in accordance with §761.20(c)(5).

(3) Materials from which PCBs have been removed by decontamination in accordance with this section may be used or reused in accordance with §761.30(u).

(4) Materials from which PCBs have been removed by decontamination in accordance with this section, not including decontamination waste and residuals under paragraph (g) of this section, are unregulated for disposal under subpart D of this part.

(5) Any person decontaminating porous surfaces other than concrete under paragraph (b)(4) of this section and non-porous surfaces covered with a porous surface, such as paint or coating on metal, under paragraph (b)(3) or (c)(6) of this section must obtain an alternative decontamination approval in

Environmental Protection Agency

§ 761.79

accordance with paragraph (h) of this section.

(6) Any person engaging in decontamination under this section is responsible for determining and complying with all other applicable Federal, State, and local laws and regulations.

(b) *Decontamination standards.* Chopping (including wire chopping), distilling, filtering, oil/water separation, spraying, soaking, wiping, stripping of insulation, scraping, scarification or the use of abrasives or solvents may be used to remove or separate PCBs, to the following standards, from liquids, concrete, or non-porous surfaces.

(1) The decontamination standard for water containing PCBs is:

(i) Less than 200 µg/L (i.e., <200 ppb PCBs) for non-contact use in a closed system where there are no releases;

(ii) For water discharged to a treatment works (as defined in §503.9(aa) of this chapter) or to navigable waters, <3 µg/L (approximately <3 ppb) or a PCB discharge limit included in a permit issued under section 307(b) or 402 of the Clean Water Act; or

(iii) Less than or equal to 0.5 µg/L (i.e., approximately ≤0.5 ppb PCBs) for unrestricted use.

(2) The decontamination standard for organic liquids and non-aqueous inorganic liquids containing PCBs is <2 milligrams per kilogram (i.e., <2 ppm PCBs).

(3) The decontamination standard for non-porous surfaces in contact with liquid and non-liquid PCBs is:

(1) For unrestricted use:

(A) For non-porous surfaces previously in contact with liquid PCBs at any concentration, where no free-flowing liquids are currently present, ≤10 micrograms PCBs per 100 square centimeters (≤10 µg/100 cm²) as measured by a standard wipe test (§761.123) at locations selected in accordance with subpart P of this part.

(B) For non-porous surfaces in contact with non-liquid PCBs (including non-porous surfaces covered with a porous surface, such as paint or coating on metal), cleaning to Visual Standard No. 2, Near-White Blast Cleaned Surface Finish, of the National Association of Corrosion Engineers (NACE). A person shall verify compliance with

standard No. 2 by visually inspecting all cleaned areas.

(ii) For disposal in a smelter operating in accordance with §761.72(b):

(A) For non-porous surfaces previously in contact with liquid PCBs at any concentration, where no free-flowing liquids are currently present, <100 µg/100 cm² as measured by a standard wipe test (§761.123) at locations selected in accordance with subpart P of this part.

(B) For non-porous surfaces in contact with non-liquid PCBs (including non-porous surfaces covered with a porous surface, such as paint or coating on metal), cleaning to Visual Standard No. 3, Commercial Blast Cleaned Surface Finish, of the National Association of Corrosion Engineers (NACE). A person shall verify compliance with standard No. 3 by visually inspecting all cleaned areas.

(4) The decontamination standard for concrete is ≤10 µg/100 cm² as measured by a standard wipe test (§761.123) if the decontamination procedure is commenced within 72 hours of the initial spill of PCBs to the concrete or portion thereof being decontaminated.

(c) *Self-implementing decontamination procedures.* The following self-implementing decontamination procedures are available as an alternative to the measurement-based decontamination methods specified in paragraph (b) of this section. Any person performing self-implementing decontamination must comply with one of the following procedures.

(1) Any person decontaminating a PCB Container must do so by flushing the internal surfaces of the container three times with a solvent containing <50 ppm PCBs. Each rinse shall use a volume of the flushing solvent equal to approximately 10 percent of the PCB Container capacity.

(2) Any person decontaminating movable equipment contaminated by PCBs, tools, and sampling equipment may do so by:

(i) Swabbing surfaces that have contacted PCBs with a solvent;

(ii) A double wash/rinse as defined in subpart S of this part; or

(iii) Another applicable decontamination procedure in this section.

(3) Any person decontaminating a non-porous surface in contact with free-flowing mineral oil dielectric fluid (MODEF) at levels $\leq 10,000$ ppm PCBs must do so as follows:

(i) Drain the free-flowing MODEF and allow the residual surfaces to drain for an additional 15 hours.

(ii) Dispose of drained MODEF according to paragraph (g) of this section.

(iii) Soak the surfaces to be decontaminated in a sufficient amount of clean (containing < 2 ppm PCBs) performance-based organic decontamination fluid (PODF) such that there is a minimum of 800 ml of PODF for each 100 cm² of contaminated or potentially contaminated surface for at least 15 hours at ≥ 20 °C.

(iv) Approved PODFs include:

(A) Kerosene.

(B) Diesel fuel.

(C) Terpene hydrocarbons.

(D) Mixtures of terpene hydrocarbons and terpene alcohols.

(v) Drain the PODF from the surfaces.

(vi) Dispose of the drained PODF in accordance with paragraph (g) of this section.

(4) Any person decontaminating a non-porous surface in contact with free-flowing MODEF containing $> 10,000$ ppm PCB in MODEF or askarel PCB (up to 70 percent PCB in a mixture of trichlorobenzenes and tetrachlorobenzenes) must do so as follows:

(i) Drain the free-flowing MODEF or askarel and allow the residual surfaces to drain for an additional 15 hours.

(ii) Dispose of drained MODEF or askarel according to paragraph (g) of this section.

(iii) Soak the surfaces to be decontaminated in a sufficient amount of clean PODF (containing < 2 ppm PCBs) such that there is a minimum of 800 ml of PODF for each 100 cm² of contaminated or potentially contaminated surface for at least 15 hours at ≥ 20 °C.

(iv) Approved PODFs include:

(A) Kerosene.

(B) Diesel fuel.

(C) Terpene hydrocarbons.

(D) Mixtures of terpene hydrocarbons and terpene alcohols.

(v) Drain the PODF from the surfaces.

(vi) Dispose of the drained PODF in accordance with paragraph (g) of this section.

(vii) Resoak the surfaces to be decontaminated, pursuant to paragraph (c)(3)(iii) of this section, in a sufficient amount of clean PODF (containing < 2 ppm PCBs) such that there is a minimum of 800 ml of PODF for each 100 cm² of surface for at least 15 hours at ≥ 20 °C.

(viii) Drain the PODF from the surfaces.

(ix) Dispose of the drained PODF in accordance with paragraph (g) of this section.

(5) Any person decontaminating piping and air lines in an air compressor system must do so as follows:

(i) Before decontamination proceeds, disconnect or bypass the air compressors and air dryers from the piping and air lines and decontaminate the air compressors and air dryers separately in accordance with paragraphs (b), (c)(1) through (c)(4), or (c)(6) of this section. Dispose of filter media and desiccant in the air dryers based on their existing PCB concentration.

(ii) Test the connecting line and appurtenances of the system to assure that there is no leakage. Test by introducing air into the closed system at from 90 to 100 pounds per square inch (psi). Only if there is a pressure drop of < 5 psi in 30 minutes may decontamination take place.

(iii) When there is no leakage, fill the piping and air lines with clean (containing < 2 ppm PCBs) solvent. Solvents include PODF, aqueous potassium hydroxide at a pH between 9 and 12, or water containing 5 percent sodium hydroxide by weight.

(iv) Circulate the solvent to achieve turbulent flow through the piping and air lines in the air compressor system until the total volume of solvent circulated equals 10 times the total volume of the particular article being decontaminated, then drain the solvent. Calculate the total volume of solvent circulated by multiplying the pump rate by the time of pumping. Turbulent flow means a Reynolds number range from 20,000 to 43,000. Refill the system

with clean solvent and repeat the circulation and drain process.

(6) Any person using thermal processes to decontaminate metal surfaces in contact with PCBs, as required by § 761.62(a)(6), must use one of the following options:

(i) Surfaces in contact with liquid and non-liquid PCBs at concentrations <500 ppm may be decontaminated in a scrap metal recovery oven or smelter for purposes of disposal in accordance with § 761.72.

(ii) Surfaces in contact with liquid or non-liquid PCBs at concentrations ≥500 ppm may be smelted in a smelter operating in accordance with § 761.72(b), but must first be decontaminated in accordance with § 761.72(a) or to a surface concentration of <100 µg/100 cm².

(d) *Decontamination solvents.* (1) Unless otherwise provided in paragraphs (c)(3) through (c)(5) of this section, the solubility of PCBs in any solvent used for purposes of decontamination under this section must be 5 percent or more by weight.

(2) The solvent may be reused for decontamination so long as its PCB concentration is <50 ppm.

(3) Solvent shall be disposed of under paragraph (g) of this section.

(4) Other than as allowed in paragraphs (c)(3) and (c)(4) of this section, solvents may be tested and validated for performance-based decontamination of non-porous surfaces contaminated with MODEP or other PCB liquids, in accordance with the self-implementing procedures found in subpart T of this part. Specific conditions for the performance-based testing from this validation are determined in the validation study.

(e) *Limitation of exposure and control of releases.* (1) Any person conducting decontamination activities under this section shall take necessary measures to protect against direct release of PCBs to the environment from the decontamination area.

(2) Persons participating in decontamination activities shall wear or use protective clothing or equipment to protect against dermal contact or inhalation of PCBs or materials containing PCBs.

(f) *Sampling and recordkeeping.* (1) Confirmatory sampling is required

under paragraph (b) of this section. For liquids described in paragraphs (b)(1) and (b)(2) of this section, sample in accordance with §§ 761.269 and 761.272. For non-porous surfaces and concrete described in paragraphs (b)(3) and (b)(4) of this section, sample in accordance with subpart P of this part. A written record of such sampling must be established and maintained for 3 years from the date of any decontamination under this section. The record must show sampling locations and analytical results and must be retained at the site of the decontamination or a copy of the record must be made available to EPA in a timely manner, if requested. In addition, recordkeeping is required in accordance with § 761.180(a) for all wastes generated by a decontamination process and regulated for disposal under this subpart.

(2) Confirmatory sampling is not required for self-implementing decontamination procedures under paragraph (c) of this section. Any person using these procedures must retain a written record documenting compliance with the procedures for 3 years after completion of the decontamination procedures (e.g., video recordings, photographs).

(g) *Decontamination waste and residues.* Decontamination waste and residues shall be disposed of at their existing PCB concentration unless otherwise specified.

(1) Distillation bottoms or residues and filter media are regulated for disposal as PCB remediation waste.

(2) PCBs physically separated from regulated waste during decontamination (such as by chopping, shredding, scraping, abrading or oil/water separation, as opposed to solvent rinsing and soaking), other than wastes described in paragraph (g)(1) of this section, are regulated for disposal at their original concentration.

(3) Hydrocarbon solvent used or reused for decontamination under this section that contains <50 ppm PCB must be burned and marketed in accordance with the requirements for used oil in § 761.20(e), disposed of in accordance with § 761.60(a) or (e), or decontaminated pursuant to this section.

(4) Chlorinated solvent at any PCB concentration used for decontamination under this section shall be disposed of in an incinerator operating in compliance with §761.70, or decontaminated pursuant to this section.

(5) Solvents ≥ 50 ppm other than those described in paragraphs (g)(3) and (g)(4) of this section shall be disposed of in accordance with §761.60(a) or decontaminated pursuant to this section.

(6) Non-liquid cleaning materials and personal protective equipment waste at any concentration, including non-porous surfaces and other non-liquid materials such as rags, gloves, booties, other disposable personal protective equipment, and similar materials resulting from decontamination shall be disposed of in accordance with §761.61(a)(5)(v).

(h) *Alternative decontamination or sampling approval.* (1) Any person wishing to decontaminate material described in paragraph (a) of this section in a manner other than prescribed in paragraph (b) of this section must apply in writing to the EPA Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or the Director of the National Program Chemicals Division, for decontamination activity occurring in more than one EPA Region. Each application must describe the material to be decontaminated and the proposed decontamination method, and must demonstrate that the proposed method is capable of decontaminating the material to the applicable level set out in paragraphs (b)(1) through (b)(4) of this section.

(2) Any person wishing to decontaminate material described in paragraph (a) of this section using a self-implementing procedure other than prescribed in paragraph (c) of this section must apply in writing to the EPA Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or the Director of the National Program Chemicals Division, for decontamination activity occurring in more than one EPA Region. Each application must describe the material to be decontaminated and the proposed self-implementing decon-

tamination method and must include a proposed validation study to confirm performance of the method.

(3) Any person wishing to sample decontaminated material in a manner other than prescribed in paragraph (f) of this section must apply in writing to the EPA Regional Administrator in the Region where the activity would take place, for decontamination activity occurring in a single EPA Region; or the Director of the National Program Chemicals Division, for decontamination activity occurring in more than one EPA Region. Each application must contain a description of the material to be decontaminated, the nature and PCB concentration of the contaminating material (if known), the decontamination method, the proposed sampling procedure, and a justification for how the proposed sampling is equivalent to or more comprehensive than the sampling procedure required under paragraph (f) of this section.

(4) EPA may request additional information that it believes necessary to evaluate the application.

(5) EPA will issue a written decision on each application for risk-based decontamination or sampling. No person may conduct decontamination or sampling under this paragraph prior to obtaining written approval from EPA. EPA will approve an application if it finds that the proposed decontamination or sampling method will not pose an unreasonable risk of injury to health or the environment.

[63 FR 35457, June 29, 1998, as amended at 64 FR 33761, June 24, 1999]

Subpart E—Exemptions

§761.80 Manufacturing, processing and distribution in commerce exemptions.

(a) The Administrator grants the following petitioner(s) an exemption for 1 year to process and distribute in commerce PCBs for use as a mounting medium in microscopy:

(1) McCrone Accessories Components, Division of Walter C. McCrone Associates, Inc., 2820 South Michigan Avenue, Chicago, IL 60616.

(2) [Reserved]

(b) The Administrator grants the following petitioner(s) an exemption for 1

§761.292

compositing area. The maximum number of grid points in a composite sample taken from a subsequent compositing area is eight. These eight grid points must be adjacent to one another in the subsequent compositing area, but need not be collinear.

(2) *Compositing from samples taken at grid points or pairs of coordinates in accordance with §761.283(c).* Samples collected at small sites are based on selecting pairs of coordinates or using the sample site selection procedure for grid sampling with a smaller grid interval.

(i) *Samples collected from a grid having a smaller grid interval.* Use the procedure in paragraph (b)(1)(i) of this section to composite samples and determine the area of inference for composite samples.

(ii) *Samples collected from pairs of coordinates.* All three samples must be composited. The area of inference for the composite is the entire area sampled.

§761.292 Chemical extraction and analysis of individual samples and composite samples.

Use either Method 3500B/3540C or Method 3500B/3550B from EPA's SW-846, Test Methods for Evaluating Solid Waste, or a method validated under subpart Q of this part, for chemical extraction of PCBs from individual and composite samples of PCB remediation waste. Use Method 8082 from SW-846, or a method validated under subpart Q of this part, to analyze these extracts for PCBs.

§761.295 Reporting and recordkeeping of the PCB concentrations in samples.

(a) Report all sample concentrations for bulk PCB remediation waste and porous surfaces on a dry weight basis and as micrograms of PCBs per gram of sample (ppm by weight).

(b) Record and keep on file for 3 years the PCB concentration for each sample or composite sample.

§761.298 Decisions based on PCB concentration measurements resulting from sampling.

(a) For grid samples which are chemically analyzed individually, the PCB

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concentration applies to the area of inference as described in §761.283(d).

(b) For grid samples analyzed as part of a composite sample, the PCB concentration applies to the area of inference of the composite sample as described in §761.283(d) (i.e., the area of inference is the total of the areas of the individual samples included in the composite).

(c) For coordinate pair samples analyzed as part of a composite sample, in accordance with §§761.283(c)(2) and 761.289(b)(2)(ii), the PCB concentration applies to the entire cleanup site.

Subpart P—Sampling Non-Porous Surfaces for Measurement-Based Use, Reuse, and On-Site or Off-Site Disposal Under §761.61(a)(6) and Decontamination Under §761.79(b)(3)

SOURCE: 63 FR 35487, June 29, 1998, unless otherwise noted.

§761.300 Applicability.

This subpart provides sample site selection procedures for large, nearly flat non-porous surfaces, and for small or irregularly shaped non-porous surfaces. This subpart also provides procedures for analyzing the samples and interpreting the results of the sampling. Any person verifying completion of self-implementing cleanup and on-site disposal of non-porous surfaces under §761.61(a)(6), or verifying that decontamination standards under §761.79(b)(3) are met, must use these procedures.

§761.302 Proportion of the total surface area to sample.

(a) *Large nearly flat surfaces.* Divide the entire surface into approximately 1 meter square portions and mark the portions so that they are clearly identified. Determine the sample location in each portion as directed in §761.304.

(1) For large nearly flat surfaces contaminated by a single source of PCBs with a uniform concentration, assign each 1 meter square surface a unique sequential number.

(i) For three or fewer 1 meter square areas, sample all of the areas.

(ii) For four or more 1 meter square areas, use a random number generator or table to select a minimum of 10 percent of the areas from the list, or to select three areas, whichever is more.

(2) For other large nearly flat surfaces, sample all of the one meter square areas.

(b) *Small or irregularly shaped surfaces.* For small surfaces having irregular contours, such as hand tools, natural gas pipeline valves, and most exterior surfaces of machine tools, sample the entire surface. Any person may select sampling locations for small, nearly flat surfaces in accordance with § 761.308 with the exception that the maximum area in § 761.308(a) is <1 meter square.

(c) *Preparation of surfaces.* Drain all free-flowing liquids from surfaces and brush off dust or loose grit.

§ 761.304 Determining sample location.

(a) For 1 square meter non-porous surface areas having the same size and shape, it is permissible to sample the same 10 cm by 10 cm location or position in each identical 1 square meter area. This location or position is determined in accordance with § 761.306 or § 761.308.

(b) If some 1 square meter surfaces for a larger non-porous surface area have different sizes and shapes, separately select the 10 cm by 10 cm sampling position for each different 1 square meter surface in accordance with § 761.308.

(c) If non-porous surfaces have been cleaned and the cleaned surfaces do not meet the applicable standards or levels, surfaces may be recleaned and resampled. When resampling surfaces previously sampled to verify cleanup levels, use the sampling procedures in §§ 761.306 through 761.316 to resample the surfaces. If any sample site selected coincides with a previous sampling site, restart the sample selection process until all resampling sites are different from any previous sampling sites.

§ 761.306 Sampling 1 meter square surfaces by random selection of halves.

(a) Divide each 1 meter square portion where it is necessary to collect a surface wipe test sample into two equal

(or as nearly equal as possible) halves. For example, divide the area into top and bottom halves or left and right halves. Choose the top/bottom or left/right division that produces halves having as close to the shape of a circle as possible. For example, a square is closer to the shape of a circle than is a rectangle and a rectangle having a length to width ratio of 2:1 is closer to the shape of a circle than a rectangle having a length to width ratio of 3:1.

(b) Assign a unique identifier to each half and then select one of the halves for further sampling with a random number generator or other device (i.e., by flipping a coin).

(c) Continue selecting progressively smaller halves by dividing the previously selected half, in accordance with paragraphs (a) and (b) of this section, until the final selected half is larger than or equal to 100 cm² and smaller than 200 cm².

(d) Perform a standard PCB wipe test on the final selected halves from each 1 meter square portion.

(e) The following is an example of applying sampling by halves. Assume that the area to sample is a 1 meter square surface area (a square that has sides 1 meter long). Assign each half to one face of a coin. After flipping the coin, the half assigned to the face of the coin that is showing is the half selected.

(1) Selecting the first half:

(i) For a square shape the top/bottom halves have the same shape as the left/right halves when compared to a circle, i.e., regardless of which way the surface is divided, each half is 1 half meter wide by 1 meter long. Therefore, divide the area either top/bottom or left/right. For selecting the first half, this example will select from left/right halves.

(ii) A coin flip selects the left half. The dimensions of this selected surface area are 1 meter high and ½ meter wide.

(2) Selecting the second half:

(i) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide (¼ meter wide and 1 meter high). Halves selected from top/bottom would be square (½ meter on a side). Therefore, select the next halves top/bottom, because the shape of the top/bottom

halves (square) is closer to the shape of a circle than the shape of the left/right halves (long narrow rectangles).

(ii) A coin flip selects the top half. The dimensions of this selected surface area are $\frac{1}{2}$ meter high and $\frac{1}{2}$ meter wide.

(3) Selecting the third half:

(i) Just as for the selection of the first half, which divided the original square area, both the left/right and the top/bottom halves have the same shape when compared to a circle (both are rectangles having the same dimensions). Therefore, choose either left/right or top/bottom halves. This example will select from left/right halves.

(ii) A coin flip selects the right half. The dimensions of this selected surface are $\frac{1}{4}$ meter by $\frac{1}{2}$ meter.

(4) Selecting the fourth half:

(i) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide ($\frac{1}{8}$ meter wide and $\frac{1}{2}$ meter high. Halves selected from top/bottom would be square ($\frac{1}{4}$ meter on a side). Therefore, select the next halves top/bottom, because the shape of the top/bottom halves (square) are closer to the shape of a circle than the shape of the left/right halves (long narrow rectangles).

(ii) A coin flip selects the bottom half. The dimensions of this selected surface area are $\frac{1}{4}$ meter high and $\frac{1}{4}$ meter wide.

(5) Selecting the fifth half:

(i) Just as for the selection of the first and third halves, both the left/right and the top/bottom halves have the same shape when compared to a circle (both are rectangles having the same dimensions). Therefore, choose either left/right or top/bottom halves. This example will select from left/right halves.

(ii) A coin flip selects the right half. The dimensions of the selected surface are $\frac{1}{8}$ meter by $\frac{1}{4}$ meter.

(6) Selecting the sixth half:

(i) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide ($\frac{1}{16}$ meter wide and $\frac{1}{4}$ meter high. Halves selected from top/bottom would be square ($\frac{1}{8}$ meter on a side). Therefore, select the next halves top/bottom, because the shape of the top/bottom halves (square) are closer to the shape

of a circle than the shape of the left/right halves (long narrow rectangles).

(ii) A coin flip selects the top half. The dimensions of this selected surface are $\frac{1}{8}$ meter high and $\frac{1}{8}$ meter wide or 12.5 cm by 12.5 cm.

(7) Collect a standard wipe test sample in the sixth half. Since the dimensions of half of the sixth half would be 12.5 cm by 6.25 cm, the area (approximately 78 cm²) would be less than the required 100 cm² minimum area for the standard wipe test. Therefore, no further sampling by halves is necessary. Take the standard wipe test samples of the entire selected sixth half.

§761.308 Sample selection by random number generation on any two-dimensional square grid.

(a) Divide the surface area of the non-porous surface into rectangular or square areas having a maximum area of 1 square meter and a minimum dimension of 10 centimeters.

(b) Measure the length and width, in centimeters, of each area created in paragraph (a) of this section. Round off the number of centimeters in the length and the width measurements to the nearest centimeter.

(c) For each 1 square meter area created in accordance with paragraph (a) of this section, select two random numbers: one each for the length and width borders measured in paragraph (b) of this section. An eligible random number can be from zero up to the total width, minus 10 centimeters.

(d) Locate the 10 centimeter by 10 centimeter sample.

(1) Orient the 1 square meter surface area so that, when you are facing the area, the length is left to right and the width is top to bottom. The origin, or reference point for measuring selected random numbers of centimeters to the sampling area, is on the lower left corner when facing the surface.

(2) Mark the random number selected for the length distance, in centimeters, from the origin to the right (at the bottom of the area away from the origin).

(3) From the marked length distance on the bottom of the area, move perpendicularly up from the bottom of the area into the area for the distance randomly selected for the width.

Environmental Protection Agency

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(4) Use the point determined in paragraph (d)(3) of this section as the lower left corner of the 10 centimeter by 10 centimeter sample.

§ 761.310 Collecting the sample.

Use the standard wipe test as defined in § 761.123 to sample one 10 centimeter by 10 centimeter square (100 cm²) area to represent surface area PCB concentrations of each square meter or fraction of a square meter of a nearly flat, non-porous surface. For small surfaces, use the same procedure as for the standard wipe test, only sample the entire area, rather than 10 centimeter by 10 centimeter squares.

§ 761.312 Compositing of samples.

For a surface originally contaminated by a single source of PCBs with a uniform concentration, it is permissible to composite surface wipe test samples and to use the composite measurement to represent the PCB concentration of the entire surface. Composite samples consist of more than one sample gauze extracted and chemically analyzed together resulting in a single measurement. The composite measurement represents an arithmetic mean of the composited samples.

(a) *Compositing samples from surfaces to be used or reused.* For small or irregularly shaped surfaces or large nearly flat surfaces, if the surfaces are contaminated by a single source of PCBs with a uniform concentration, composite a maximum of three adjacent samples.

(b) *Compositing samples from surfaces to be disposed of off-site or on-site.* (1) For small or irregularly shaped surfaces, composite a maximum of three adjacent samples.

(2) For large nearly flat surfaces, composite a maximum of 10 adjacent samples.

§ 761.314 Chemical analysis of standard wipe test samples.

Perform the chemical analysis of standard wipe test samples in accordance with § 761.272. Report sample results in micrograms per 100 cm².

§ 761.316 Interpreting PCB concentration measurements resulting from this sampling scheme.

(a) For an individual sample taken from an approximately 1 meter square portion of the entire surface area and not composited with other samples, the status of the portion is based on the surface concentration measured in that sample. If the sample surface concentration is not equal to or lower than the cleanup level, by inference the entire 1 meter area, and not just the immediate area where the sample was taken, is not equal to or lower than the cleanup level.

(b) For areas represented by the measurement results from compositing more than one 10 centimeter by 10 centimeter sample, the measurement for the composite is the measurement for the entire area. For example, when there is a composite of 10 standard wipe test samples representing 9.5 square meters of surface area and the result of the analysis of the composite is 20 µg/100 cm², then the entire 9.5 square meters has a PCB surface concentration of 20 µg/100 cm², not just the area in the 10 cm by 10 cm sampled areas.

(c) For small surfaces having irregular contours, where the entire surface was sampled, measure the surface area. Divide 100 cm² by the surface area and multiply this quotient by the total number of micrograms of PCBs on the surface to obtain the equivalent measurement of micrograms per 100 cm².

Subpart Q—Self-Implementing Alternative Extraction and Chemical Analysis Procedures for Non-liquid PCB Remediation Waste Samples

SOURCE: 63 FR 35468, June 29, 1998, unless otherwise noted.

§ 761.320 Applicability.

This subpart describes self-implementing comparison testing requirements for chemical extraction and chemical analysis methods used as an alternative to the methods required in §§ 761.272 or 761.292. Any person conducting comparison testing under this

§ 761.61

surfaces may be thermally decontaminated in accordance with § 761.79(c)(6)(i).

(2) Having surface concentrations $\geq 100 \mu\text{g}/100 \text{ cm}^2$ shall be disposed of in accordance with paragraph (a)(5)(i)(B)(2)(iii) of this section. Metal surfaces may be thermally decontaminated in accordance with § 761.79(c)(6)(ii).

(C) For use, non-porous surfaces shall be decontaminated on-site or off-site to the standards specified in § 761.79(b)(3) or in accordance with § 761.79(c).

(iii) *Porous surfaces.* Porous surfaces shall be disposed on-site or off-site as bulk PCB remediation waste according to paragraph (a)(5)(i) of this section or decontaminated for use according to § 761.79(b)(4), as applicable.

(iv) *Liquids.* Any person disposing of liquid PCB remediation waste shall either:

(A) Decontaminate the waste to the levels specified in § 761.79(b)(1) or (b)(2).

(B) Dispose of the waste in accordance with paragraph (b) of this section or an approval issued under paragraph (c) of this section.

(v) *Cleanup wastes.* Any person generating the following wastes during and from the cleanup of PCB remediation waste shall dispose of or reuse them using one of the following methods:

(A) Non-liquid cleaning materials and personal protective equipment waste at any concentration, including non-porous surfaces and other non-liquid materials such as rags, gloves, booties, other disposable personal protective equipment, and similar materials resulting from cleanup activities shall be either decontaminated in accordance with § 761.79(b) or (c), or disposed of in one of the following facilities, without regard to the requirements of subparts J and K of this part:

(1) A facility permitted, licensed, or registered by a State to manage municipal solid waste subject to part 258 of this chapter.

(2) A facility permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste subject to §§ 257.5 through 257.30 of this chapter, as applicable.

(3) A hazardous waste landfill permitted by EPA under section 3004 of

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RCRA, or by a State authorized under section 3006 of RCRA.

(4) A PCB disposal facility approved under this part.

(B) Cleaning solvents, abrasives, and equipment may be reused after decontamination in accordance with § 761.79.

(6) *Cleanup verification*—(i) *Sampling and analysis.* Any person collecting and analyzing samples to verify the cleanup and on-site disposal of bulk PCB remediation wastes and porous surfaces must do so in accordance with subpart O of this part. Any person collecting and analyzing samples from non-porous surfaces must do so in accordance with subpart P of this part. Any person collecting and analyzing samples from liquids must do so in accordance with § 761.269. Any person conducting interim sampling during PCB remediation waste cleanup to determine when to sample to verify that cleanup is complete, may use PCB field screening tests.

(ii) *Verification.* (A) Where sample analysis results in a measurement of PCBs less than or equal to the levels specified in paragraph (a)(4) of this section, self-implementing cleanup is complete.

(B) Where sample analysis results in a measurement of PCBs greater than the levels specified in paragraph (a)(4) of this section, self-implementing cleanup of the sampled PCB remediation waste is not complete. The owner or operator of the site must either dispose of the sampled PCB remediation waste, or reclean the waste represented by the sample and reinitiate sampling and analysis in accordance with paragraph (a)(6)(i) of this section.

(7) *Cap requirements.* A cap means, when referring to on-site cleanup and disposal of PCB remediation waste, a uniform placement of concrete, asphalt, or similar material of minimum thickness spread over the area where remediation waste was removed or left in place in order to prevent or minimize human exposure, infiltration of water, and erosion. Any person designing and constructing a cap must do so in accordance with § 264.310(a) of this chapter, and ensure that it complies with the permeability, sieve, liquid limit, and plasticity index parameters in § 761.75(b)(1)(i) through (b)(1)(v). A

APPENDIX I

DEMOLITION MANAGEMENT AND DECONTAMINATION PROVISION MEMORANDUM

TRC
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854

Main 978.970.5600
Fax 978.453.1995

Memorandum

To: Kimberly Tisa, United States Environmental Protection Agency.
From: David M. Sullivan, LSP, CHMM, TRC Environmental Corporation
CC: Scott Alfonse and Cheryl Henlin, City of New Bedford
Subject: City-Acquired Property Demolition Management and Decontamination Provisions
Date: February 25, 2010

Introduction

TRC Environmental Corporation (TRC) has prepared this memorandum on behalf of the the City of New Bedford (City) for your review regarding the management and decontamination provisions associated with the residential building demolition and foundation management activities detailed in the Massachusetts Department of Environmental Protection (MassDEP) approved Modified Release Abatement Measure (RAM) Plan dated September 17, 2009. The decontamination provisions associated with these activities were outlined in the Polychlorinated Biphenyl (PCB) Remediation Notification Letter (Notification Letter) sent to you by the City on September 16, 2009. TRC prepared this memorandum to facilitate agreement upon the details of the management and decontamination procedures prior to moving forward with the demolition work, currently scheduled to begin in the spring.

As you are aware, the Notification Letter associated with the residential demolition activities has the following language describing certain material management and decontamination options:

- ***Above-Ground Swimming Pool or Other Miscellaneous Aboveground Structures*** - *The above-ground swimming pool and other miscellaneous aboveground structures will be dismantled and disposed of as solid waste. Pool liner and structure components in contact with potentially contaminated soil that is potentially regulated as a PCB remediation waste will be managed in accordance with 40 CFR Part 761.61(a)(5)(ii) and sampled in accordance with 40 CFR Part 761, Subpart P.*
- ***Equipment Decontamination*** - *Equipment that comes into direct contact with soil or concrete determined to be actual or potential PCB Remediation Waste will be decontaminated by one of the following methods:*
 - *Self-Implementing Decontamination Procedures, as set forth under 40 CFR Part 761.79(c); or*

- *Aqueous cleaning followed by verification sampling as set forth under 40 CFR Part 761, Subpart P.*

Decontamination Procedures

The following outlines proposed practical level procedures, given that there are multiple acceptable approaches, in hopes of ensuring that management and decontamination expectations are met. Given the high profile nature of the work, TRC recommends meeting at the site with the managers and foremen at the City's Department of Public Infrastructure (DPI) and Environmental Stewardship personnel to walk through the decontamination procedures prior to commencing demolition activities.

- **Applicability** – Pending review of analytical results associated with as yet to be collected concrete foundation and as needed soil sampling at each of the City-acquired properties as detailed in the Addendum to Polychlorinated Biphenyl Remediation Notification Letter (Addendum Letter) sent by the City to you on February 17, 2010, TRC proposes that procedures discussed in this memorandum apply only to those properties where it has been documented that soil containing PCBs at or in excess of a concentration of 50 milligrams per kilogram (mg/kg) are present in soil (assuming the as yet to be collected concrete samples do not contain PCBs greater than 1 mg/kg). Currently, the City-acquired properties where soil with PCBs in excess of 50 mg/kg has been documented include: 101 Greenwood Street, 102 Greenwood Street, and 118 Ruggles Street. Pending the analytical results noted above, these procedures are not explicitly required for the other three properties (98 Ruggles Street, 108 Ruggles Street, and 111 Greenwood Street).
- **Pool and Miscellaneous Above-Ground Structures** - The City's Notification Letter indicates that these items will be managed under 40 CFR Part 761.61(a)(5)(ii), which applies to non-porous surfaces, specifically subpart (B) which addresses off-site disposal (clearly the path forward for these items). The practical application of this depends on the outcome of wipe sample results. If the wipe sample results are less than 100 micrograms per 100 square centimeters (ug/100 cm²), then the material can be disposed of at a facility permitted, licensed, or registered by a state to manage municipal solid waste (among other disposal options, the one noted here being most likely). If the wipe sample results are greater than 100 ug/100 cm², then the materials would need to go to a licensed hazardous waste or PCB disposal facility.

TRC does not anticipate that PCBs will transfer to the pool liner and metal superstructure of the pool. The management provisions noted in the City's September 16, 2009 Notification Letter do not explicitly discuss decontamination of the pool and miscellaneous above-ground structures. Where these items are in direct contact with potentially regulated soil, the soil adhering to the structures will be brushed off and wipe samples will be collected (per Subpart P) at a rate of 1 wipe sample for every square meter. TRC proposes an aqueous decontamination procedure as an option should that level of management appear warranted.

- **Equipment Decontamination** – TRC proposes that where equipment decontamination is required for compliance with 40 CFR Part 761 that a prescriptive decontamination approach be followed per §761.79(c)(2)(ii) that will not require follow-up wipe sampling (assumed to be clean) and will avoid delays due to laboratory turn-around for verification wipe sampling. Specifically, TRC recommends that we employ an aqueous-based double-wash, double-rinse approach available under §761.375 of Subpart S. The first wash/rinse would consist of a water/solvent solution wash followed by potable water rinse. The second wash/rinse would

be conducted according to §761.372(a) and (b). A commercially available solvent such as Simple Green, in which PCBs are five percent or more soluble, would be used during the decontamination process.

- **Decontamination Fluid Management** - Per §761.79(b)(ii) and (iii) the decontamination standard for water is less than 3 micrograms per liter (ug/L) PCBs for discharge to navigable waters or treatment works and less than 0.5 ug/L for unrestricted reuse. All of our proposed liquid waste streams are aqueous and subject to this standard, but Simple Green waste liquids should be managed in a separate container to the degree practicable. If the analytical results indicate less than 3 ug/L PCBs, we propose to discharge the decontamination fluids to the public sanitary sewer (assuming compliance with City PCB discharge permits). If analytical results indicate less than 0.5 ug/L PCBs, we propose to discharge to the ground surface at the site.
- **Non-Liquid Cleaning Materials and PPE** - Non-liquid cleaning materials (e.g., rags, gloves, brushes, booties) and personal protective equipment (PPE) waste will be managed in accordance with §761.61(a)(5)(v), which allows for disposal as solid waste.

If EPA is in basic agreement on this framework for the path forward, TRC will develop a more detailed set of instructions that will facilitate implementation in the field.

Thank you for your time and attention on this matter. We look forward to discussing this memorandum with you at your earliest convenience.

APPENDIX J

**COPY OF CHECK FOR MASSDEP RAM PLAN
FEE**



21 Griffin Road North
Windsor, CT 06095

WACHOVIA BANK, N.A.
Wilmington, DE
62-22/311

640467

CHECK DATE

08/14/09

PAY **Eight Hundred and 00/100 Dollars*******

AMOUNT
\$800.00

TO Commonwealth of Massachusetts

*RAM Plan
RTN 4-15685
City of New Bedford*

By *[Signature]*
VOID AFTER 90 DAYS

AUTHORIZED SIGNATURE

Security Check features
included
Details on back



21 Griffin Road North
Windsor, CT 06095

EMILY BUSINESS FORMS 800.392.6018 VISION

640467

Invoice Number	Invoice Date	Description	Amount
FEE	08/13/09	Vendor # 030812 Regulatory Fee for (RAM Plan Submittal)	\$800.00

APPENDIX K

MUNICIPAL NOTIFICATION LETTERS



Wannalancit Mills
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www.TRCSolutions.com

July 6, 2010

TRC Reference Number: 115058.0000.0000

Mayor Scott W. Lang
Office of the Mayor
City Hall, Room 311
New Bedford, Massachusetts 02740

RE: Notice of Implementation of Revised Modified Release Abatement Measures Under the Massachusetts Contingency Plan – 101, 102 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street Buildings Demolition Activity, MassDEP RTNs 4-15685.

Dear Mr. Lang:

On behalf of the City of New Bedford (the "City"), and pursuant to 310 CMR 40.1403 of the Massachusetts Contingency Plan (MCP), TRC Environmental Corporation (TRC) has prepared this letter to inform you of implementation of a Release Abatement Measure (RAM) at the City-owned 101, 102 and 111 Greenwood Street and 98, 108 and 188 Ruggles Street properties. The six acquired residential properties are within the portion of the Parker Street Waste Site located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Street in New Bedford, Massachusetts.

The Revised Modified RAM that will be performed at this location replaces the previously submitted Modified RAM Plan (dated September 17, 2009) and involves the disconnection of the residences underground utilities, demolition of residences, on-site crushing of the building foundation and slab and use as fill for foundation hole, as needed off-site disposal of concrete and subgrade foam insulation material, removal of additional miscellaneous structures (e.g., pool, sheds, etc.), backfilling of the foundation hole with suitable off-site material and minimal temporary soil stockpiling. Excavation and disposal activities are anticipated to begin on or about July 15, 2010.

If you have any questions concerning the RAM activities planned by the City, please do not hesitate to contact David Sullivan at TRC at (978) 656-3565 or Cheryl Henlin with the Department of Environmental Stewardship, at (508) 961-4576.

Sincerely,
TRC Environmental Corporation

A handwritten signature in black ink that reads "David M. Sullivan".

David M. Sullivan, LSP, CHMM
Sr. Project Manager

Cc: Cheryl Henlin, New Bedford Department of Environmental Stewardship



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July 6, 2010

TRC Reference Number: 115058.0000.0000

Marianne B. De Souza
Health Department
1213 Purchase Street, First Floor
New Bedford, Massachusetts 02740

RE: Notice of Implementation of Revised Modified Release Abatement Measures Under the Massachusetts Contingency Plan – 101, 102 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street Buildings Demolition Activity, MassDEP RTNs 4-15685.

Dear Ms. De Souza:

On behalf of the City of New Bedford (the "City"), and pursuant to 310 CMR 40.1403 of the Massachusetts Contingency Plan (MCP), TRC Environmental Corporation (TRC) has prepared this letter to inform you of implementation of a Release Abatement Measure (RAM) at the City-owned 101, 102 and 111 Greenwood Street and 98, 108 and 188 Ruggles Street properties. The six acquired residential properties are within the portion of the Parker Street Waste Site located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Street in New Bedford, Massachusetts.

The Revised Modified RAM that will be performed at this location replaces the previously submitted Modified RAM Plan (dated September 17, 2009) and involves the disconnection of the residences underground utilities, demolition of residences, on-site crushing of the building foundation and slab and use as fill for foundation hole, as needed off-site disposal of concrete and subgrade foam insulation material, removal of additional miscellaneous structures (e.g., pool, sheds, etc.), backfilling of the foundation hole with suitable off-site material and minimal temporary soil stockpiling. Excavation and disposal activities are anticipated to begin on or about July 15, 2010.

If you have any questions concerning the RAM activities planned by the City, please do not hesitate to contact David Sullivan at TRC at (978) 656-3565 or Cheryl Henlin with the Department of Environmental Stewardship, at (508) 961-4576.

Sincerely,
TRC Environmental Corporation

A handwritten signature in cursive script that reads "David M. Sullivan".

David M. Sullivan, LSP, CHMM
Sr. Project Manager

Cc: Cheryl Henlin, New Bedford Department of Environmental Stewardship