

**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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## **APPENDICES**

- Appendix A Soil Boring Logs
- Appendix B Copy of Check for MassDEP RAM Plan Fee
- Appendix C Municipal Notification Letters
- Appendix D Soil Management Plan
- Appendix E Updated City of New Bedford Demolition Plan Summary
- Appendix F Excerpts from 40 CFR Part 761
- Appendix G PCB Remediation Notification Letter

## 1.0 INTRODUCTION

On behalf of the City of New Bedford, Massachusetts (the "City"), TRC Environmental Corporation (TRC) has prepared this 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 Modified RAM Plan is to outline the changes in the approach for 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 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 original RAM Plan submitted to the MassDEP on September 9, 2009. This Modified RAM Plan addresses the following changes to the September 9, 2009 RAM Plan, and serves as a stand-alone replacement for the 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 potential PCB contaminated 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 comes 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.

Many of the activities outlined in the original RAM Plan submitted on September 9, 2009 remain unchanged, such as the installation of a perimeter fence (already initiated as part of site preparation activities), excavation and immediate replacement of soils to allow for the disconnection of underground dwelling utilities, demolition of the dwelling structures and disposal of the dwelling debris (aside from the foundation materials). This Modified RAM Plan focuses only on the changes in technical or regulatory approach. The principal changes to the demolition approach involve the demolition of the concrete foundations to a location at or below

grade, breaking the basement slabs to enable drainage, and backfilling of the basement space with crushed concrete foundation materials and suitable off-site material and establishment of grass cover.

Neither the original (September 9, 2009) RAM Plan nor this Modified RAM Plan 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 full remedy for the subject parcels, currently in the planning stage, which will be the subject of subsequent regulatory submittals to the EPA and MassDEP. Should soil removal be required, it will be subject to any and all required regulation approvals for such actions.

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.

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). This RAM Plan has been prepared to guide soil management activities associated with the aforementioned construction/demolition activities.

## **1.1 Work Summary**

Work to be performed under this RAM includes:

- Installation of a perimeter fence (as part of site preparation activity), which will remain in place through the completion of activities described in the modified RAM Plan and until such time that a complete remedy is implemented;
- Excavation and immediate replacement of soil during the disconnection of site underground utilities;
- Demolition of dwelling structures and off-site disposal of dwelling debris (aside from the concrete foundation materials);
- Demolition and subsequent management of the concrete foundations to a location at or below grade;
- Breaking up the basement slab to facilitate post-demolition drainage;
- Backfilling of basement space/covering of basement slab with crushed concrete foundation materials and with appropriately documented contaminant-free fill material screened in advance for the presence of regulated contaminants;
- Removal of an above-ground swimming pool at one residence and other potential miscellaneous aboveground structures (e.g., sheds);
- As needed sampling and analysis of surficial soil materials;
- Sampling and analysis to evaluate the regulatory status of concrete foundation material in contact with soil as discussed further herein; and

- Minimal temporary soil stockpiling and stockpile management during activities that require excavation of soil (such as utility disconnection activities).

The sections of the Original (September 9, 2009) RAM Plan changed as by this Modified RAM plan are indicated below as “modified”. 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 (unchanged);
- Section 4 - Objective, plan and implementation schedule of the RAM (modified);
- Section 5 - Information pertaining to remediation waste management (modified);
- Section 6 - Environmental monitoring (modified);
- Section 7 - Federal, State, and Local permits (modified);
- Section 8 - Seal and signature of the Licensed Site Professional (modified);
- Section 9 - Certification of financial resources (unchanged);
- Section 10 - Relevant information (modified); and
- Section 11 - References (unchanged).

Supporting appendices from the original (September 9, 2009) RAM Plan that are unchanged by this Modified RAM include soil boring logs (Appendix A). This modified RAM Plan includes the following appendices: RAM fee documentation (Appendix B), municipal notification letters (Appendix C), and the Soil Management Plan (Appendix D), updated City of New Bedford demolition plan summary (Appendix E), excerpts from 40 CFR Part 761 (Appendix F) and a copy of the PCB Remediation Notification letter submitted to EPA (Appendix G).

## **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 contaminated fill associated with the Parker Street Waste Site (PSWS). Special Project status has been established for RTN 4-15685.

No data tables or figures from the original (September 9, 2009) RAM Plan are affected by the changes associated with this 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 by ash-laden waste materials 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 Field (Walsh Field), and the construction site for athletic fields at the location of the former Keith Junior High School (KJHS).

Groundwater categories at the Site include actual or potential GW-2, depending upon proximity to occupied structures. Groundwater is encountered at approximately 5 feet below ground surface based on recent groundwater monitoring well installations at Walsh Field by TRC and deeper in other PSWS locations, and GW-3, which applies to all groundwater throughout the Commonwealth. However, groundwater impacts from contaminants 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, 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 release at 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 contamination. 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 contaminants 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 gaps in the delineation of the contamination from the former PSWS 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 contamination. The investigative approach was intended to evaluate the presence or absence of fill, the vertical extent of contamination, and the potential presence of contaminants of concern in soil and fill material that may be present based on documentation available to TRC and past sampling in the area.

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 contamination exceeding applicable standards, if present. The contingent native material was not analyzed if the native material interval above it was found to be uncontaminated (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 contamination. Soil samples collected were analyzed for PCBs, MCP metals, and PAHs. Several of the samples indicated individual detections of contaminants 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 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 contaminants at concentrations that exceed the applicable MCP Method 1 soil cleanup standards with the exception 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 contaminants 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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, the analytical results did not indicate the detection of dibenzofuran at concentrations exceeding laboratory reporting limit. 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 applicable 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 contaminants at concentrations that exceed the applicable MCP Method 1 soil cleanup standards with the exception PCBs, and five metals (arsenic, cadmium, chromium, lead, and nickel). A summary of the 102 Greenwood Street soil analytical results for detected contaminants 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 did not indicate the detection of dibenzofuran at concentrations exceeding 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 contaminants at concentrations that exceed the applicable 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 contaminants 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable MCP Method 1 cleanup standards.

### **111 Greenwood Street Soil Dibenzofuran Results**

For the two soil samples that were analyzed for dibenzofuran, the analytical results did not indicate the detection of dibenzofuran at concentrations exceeding laboratory reporting limit. 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 applicable 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 contaminants at concentrations that exceed the applicable MCP Method 1 soil cleanup standards with the exception 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



contaminants 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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, the analytical results did not indicate the detection of dibenzofuran at concentrations exceeding the applicable 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 contaminants at concentrations that exceed the applicable MCP Method 1 soil cleanup standards with the exception 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 contaminants 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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, the analytical results did not indicate the detection of dibenzofuran at concentrations exceeding the applicable 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 applicable 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 contaminants at concentrations that exceed the applicable MCP Method 1 soil cleanup standards with the exception 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 contaminants 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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 applicable 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, the analytical results did not indicate the detection of dibenzofuran at concentrations exceeding the applicable 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 applicable MCP Method 1 soil cleanup standards.

## **4.0 OBJECTIVE, PLAN & IMPLEMENTATION SCHEDULE**

### **4.1 Objective**

Work to be performed under this RAM includes:

- Installation of a perimeter fence (as part of site preparation activity), which will remain in place through the completion of activities described in the modified RAM Plan and until such time that a complete remedy is implemented;
- Excavation and immediate replacement of soil during the disconnection of site underground utilities;
- Demolition of dwelling structures and off-site disposal of dwelling debris (aside from the concrete foundation materials);
- Demolition and subsequent management of the concrete foundations to a location at or below grade;
- Breaking up of the basement slab to facilitate post-demolition drainage;
- Backfilling of basement space/covering of basement slab with crushed concrete foundation materials and with appropriately documented contaminant-free fill material screened in advance for the presence of regulated contaminants;
- Removal of an above-ground swimming pool at one residence and other potential miscellaneous aboveground structures (e.g., sheds);
- As needed sampling and analysis of surficial soil materials;
- 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 potential PCB contaminated 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; and
- Minimal temporary soil stockpiling and stockpile management during activities that require excavation of soil (such as utility disconnection activities).

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 6 weeks. This schedule is anticipated to include one to two weeks for perimeter fence installation, two weeks for demolition, and two weeks for backfilling and restoration. Note that perimeter fence installation was initiated as part of site preparation activities in early September 2009 and will be completed 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) working with the Department of Environmental Stewardship will 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 will consist of the dismantling and removal of the buildings only. No soil remediation or removal work is planned in conjunction with the demolition.

Work has begun to secured the area by installing a temporary chain link fence around the work area and hay bales (or equivalent), which will be deployed as need to control runoff. Additional fence and hay bale installation will be completed following MassDEP approval. The fence has been and will continue to be installed utilizing a hydraulic driving machine to push the fence posts into the ground so that no excavation is required. 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 will be disconnected at the main utility pole or cable, whichever is appropriate.

##### *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 will be excavated during site construction activities only for the disconnection of site underground utilities. All natural gas and water supplies to the residences will be shut off at the street main supply prior to disconnection at the dwelling foundation. Soil will be excavated along the dwelling foundations to a depth as required to expose the utility connection at the foundation. Soil 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 may be implemented during excavation activities to ensure worker's safety while in the work zone. This need will be assessed on a case-by-case base in consultation with TRC's LSP.

All soil excavation activities will be conducted in accordance with a site specific Health & Safety Plan (HASP), which includes potential hazards and outlines how to respond to emergencies. Each organization performing work at the Site shall prepare their own 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. Additionally, all utilities will be disconnected as described in Section 4.2.1 prior to demolition of the dwelling structures. Some utility disconnection for natural gas has already been conducted by Nstar in the adjacent streets 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 materials) will be placed directly into roll off containers. The demolition waste will then be disposed of at an approved construction waste facility. The demolition will be performed by the City's DPI using appropriately 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 to a location at or below grade. The foundation walls will be broken up to a 6-inch minus size using an appropriate excavator attachment ("nibbler"), and be used as backfill in the remaining basement void or to cover the remaining slab and nearby soil where the basement slab is at grade. The basement slabs will be broken up 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/covered with contaminant free soil as described in Section 4.2.6.

All materials will be managed as described in the *Soil Management Plan* in Appendix D.

#### **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 Licensed Site Professional (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 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 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 appropriate 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.

#### **4.2.7 Foundation Concrete Sampling**

See Section 6.4 for a description of foundation concrete sampling.

#### **4.2.8 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.

### **4.3 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.

See Appendix F excerpts for relevant excerpts from 40 CFR Part 761. Actual procedures selected for use will be included in the RAM Status and/or Completion Report.

#### **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 6 weeks. This schedule is anticipated to include one to two weeks for perimeter fence installation (initiated in early September and to be completed following Modified RAM Plan approval), two weeks for demolition, and two weeks for backfilling and restoration. 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.

It is currently anticipated 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 offsite disposal during the implementation of this RAM Plan, subject to any and all required regulatory approvals necessary for such actions, the following sections include a summary of proper management procedures. In addition, detail soil management procedures are presented in the *Soil Management Plan* provided in Appendix D, which outlines the 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 for the disconnection of site underground utilities and temporarily managed onsite. No soils managed to facilitate access to buried utilities will be removed from the Site. Such soils will be returned to the excavation in the order removed.

### 5.1 On-Site Soil and Concrete Management

Although it is not anticipated that any soil will be transported from the Site during implementation of this RAM Plan, potentially contaminated soil excavation for the disconnection of site underground utilities will take place with qualified field oversight personnel. Contractors will be required to implement means to prevent fugitive dust generation such as water sprays.

Excavated soils and concrete associated with the RAM may be temporarily stored as needed on the Site and in the event of off-site reuse, recycling or disposal becomes involved, segregated into the following soil types by the degree of impact and proposed disposal facility:

- 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). Also includes soil chemically treated to a degree sufficient to be accepted for lined or unlined landfill reuse;
- 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.

Soils types are further discussed in *Soil Management Plan* provided in Appendix D. 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.

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.

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

Should any excavated soil be transported from the Site it will first be characterized as appropriate for off-site reuse, recycling, and/or disposal at a suitable facility. Several suitable off-site facilities may be considered, but no facility locations have been identified at this time since the project is not expected to displace regulated soils. As identified in Section 4.2.1, soil samples will be taken and submitted for laboratory analysis in order to pre-characterize the soil to be excavated. The laboratory results will then be compared against Massachusetts reuse, recycling, and disposal criteria in accordance to MassDEP Policy# COMM-97-001 and Interim Policy #WSC-94-400.

Use of MassDEP COMM-97-001 and WSC-94-4000 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) 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.

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.

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

### **5.3 PCB Remediation Waste**

EPA has indicated that some of the activities related to the demolition activities described herein may be jurisdictional under the EPA's PCB regulations under 40 CFR Part 761. Please refer to Appendix G for additional information pertaining to potential PCB Remediation Waste associated with the demolition activity. If based on sampling described herein concrete foundation material is determined to be PCB Remediation Waste, the City will work closely with the EPA Region 1 PCB Coordinator to evaluate management options.

## **6.0 ENVIRONMENTAL MONITORING PLAN**

TRC personnel will be onsite during the demolition and as needed for excavation and off-site transport for reuse, recycling and/or disposal (if necessary) of contaminated soil and will conduct environmental monitoring activities as described herein. TRC will also conduct 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 potential PCB contaminated 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. 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 contaminant of concern at the Site. As a precaution, soil samples will be periodically screened via the MassDEP jar-headspace method for the potential presence of VOCs based on professional judgment.

### **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.

#### **6.2.1 Air 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.

##### **6.2.1.1 Real-Time Dust Monitoring**

It is anticipated that contaminated material will not be encountered during these construction activities, with the exception of the disconnection of utilities. During the excavation for utility disconnection, a minimum amount of soil disturbance is anticipated and may not require dust monitoring. 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.

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 (PM<sub>10</sub>). 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/m<sup>3</sup>). This instrumentation has an accuracy of 0.001 mg/m<sup>3</sup> (1 ug/m<sup>3</sup>). 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/m<sup>3</sup> 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.

### **6.2.2 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.

### **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 PM<sub>10</sub> particulate of 150 ug/m<sup>3</sup>. The modeling conducted to support the derivation of the 150 µg/m<sup>3</sup> dust level indicates that the PCB concentration would need to be at least 2000 mg/kg in soil or concrete before the EPA Acceptable Long-Term Average Exposure Concentration of 0.3 ug/m<sup>3</sup> 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.

### **6.4 Foundation Concrete Sampling**

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, TRC 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 from each of these residences following the removal of soil particles using conventional dry brushing techniques.

Concrete samples will be collected as follows:

- Soil in contact with the building foundations targeted for sampling will be moved away from the foundation wall using a shovel or similar tool at approximately equally spaced locations around the perimeter.
- The concrete surface will be brushed clean of adhering soil with a dedicated disposable brush.
- Concrete will be chipped from the surface from a depth not to exceed one-half inch. The chipping procedure may be performed by hand with a hammer and chisel, or with an appropriate equipped hammer drill or similar power tool.
- An aluminum foil liner will be deployed below the area of sample to collect the chips for appropriate containerization in a pre-cleaned sample jars.
- Chip samples will be submitted to an appropriately qualified laboratory for analysis for PCB as Aroclors by SW-846 Method 8082.

Concrete with total PCB results in excess of 1 mg/kg will be considered a PCB Remediation Waste. If concrete sample results with total PCB results greater than or equal to 50 mg/kg are detected, the City will coordinate with EPA for appropriate management of this material.

Note that should MassDEP or EPA require any additional sampling of the concrete foundation material, the City will work in close coordination with MassDEP, EPA and the project LSP to determine the scope and level of effort of the work.

## **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 G.

### **7.2 State Permit Requirements**

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

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 asbestos or 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 D contains a copy of the check for the RAM Plan fee for documentation purposes.

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.

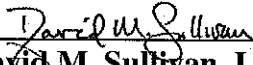
All soil material that is transported from the site must be transported under a MassDEP BOL that contains the signature and seal of the LSP of record for the site, or under a MSR or hazardous waste manifest as appropriate.

## 8.0 SEAL & SIGNATURE OF LICENSED SITE PROFESSIONAL

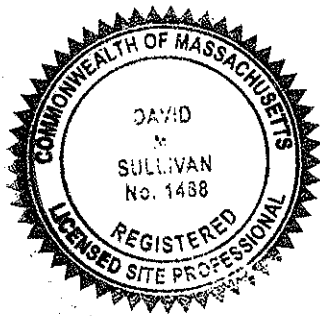
The Licensed Site Professional (LSP) overseeing this RAM is:

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

This 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

9/17/2009  
\_\_\_\_\_  
Date



\_\_\_\_\_  
Stamp

## **9.0 CERTIFICATION OF FINANCIAL RESOURCES**

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

## **10.0 OTHER RELEVANT INFORMATION**

### **10.1 Public Involvement**

As required by 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 RAM activities. Copies of the notification letters that were sent to the Mayor and Board of Health are provided in Appendix C.

## 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): |          |          |          |        |      | 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        | 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 |                    |            |            |            |            |            |            |            |            |            |            | Field Dup  |            |         |
| 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         | 0.35 U     | ND         | 0.63 U     | NA         | 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         | 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      | I    | 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      | I    | 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      | I    | 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      | I    | 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      | I    | 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      | I    | 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      | I    | 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      | I    | 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      | I    | 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 <sup>(b)</sup> | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA      |
|                             | Total Petroleum Hydrocarbons (mg/kg) | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | NA                 | NA         | NA         | 138        | 164        | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA         | NA      |
|                             | Diesel Range Organics                | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | NA                 | NA         | NA         | NA         | 22.3       | NA         | NA         | NA         | NA         | NA         | 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      |

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.  
<sup>b</sup> - 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<br>(102-GW-COM-1) |              |              | K1.3<br>(K1_3) |             | K5.5<br>(K5_5) |           | L1.3<br>(L1_3) |              | M1.3<br>(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      | 6/20/2006    | 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        |                              |              |              |                |             |                |           |                |              |                |             |               |               |               |                |                |      |        |         |       |    |    |
| <b>PAHs / Dibenzofuran</b><br>(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            | 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            | NA            | NA            | 0.193 U        | NA             | NA   |        |         |       |    |    |
|                                       | Anthracene             | 1000                              | 1000     | 3000     | 3000     | 1000   | NA          | <b>0.28</b>                  | 0.27 U       | 0.29 U       | NA             | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | 0.692          | NA   | NA     |         |       |    |    |
|                                       | Benzo(a)anthracene     | 7                                 | 7        | 40       | 40       | 7      | NA          | <b>0.46</b>                  | 0.27 U       | 0.29 U       | NA             | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | NA             | 1.69 | NA     | NA      |       |    |    |
|                                       | Benzo(a)pyrene         | 2                                 | 2        | 4        | 4        | 2      | NA          | <b>0.43</b>                  | 0.27 U       | 0.29 U       | NA             | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | NA             | NA   | 1.75   | NA      | NA    |    |    |
|                                       | Benzo(b)fluoranthene   | 7                                 | 7        | 40       | 40       | 7      | NA          | <b>0.59</b>                  | <b>0.36</b>  | <b>0.43</b>  | NA             | NA          | NA             | NA        | NA             | 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            | 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            | NA            | NA            | NA             | NA             | NA   | 0.763  | NA      | NA    |    |    |
|                                       | Chrysene               | 70                                | 70       | 400      | 400      | 70     | NA          | <b>0.49</b>                  | 0.27 U       | 0.29 U       | NA             | NA          | NA             | NA        | NA             | 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            | NA            | NA            | NA             | NA             | NA   | 0.362  | NA      | NA    |    |    |
|                                       | Fluoranthene           | 1000                              | 1000     | 3000     | 3000     | 1000   | NA          | <b>0.61</b>                  | <b>0.42</b>  | <b>0.61</b>  | NA             | NA          | NA             | NA        | NA             | NA           | 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            | 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            | 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            | 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            | NA            | NA            | NA             | NA             | NA   | NA     | 0.245   | NA    | NA |    |
|                                       | Phenanthrene           | 500                               | 500      | 1000     | 1000     | 10     | NA          | <b>0.41</b>                  | 0.27 U       | <b>0.44</b>  | NA             | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | NA             | NA   | NA     | 3.47    | NA    | NA |    |
| Pyrene                                | 1000                   | 1000                              | 3000     | 3000     | 1000     | NA     | <b>0.79</b> | <b>0.48</b>                  | <b>0.47</b>  | NA           | NA             | NA          | NA             | NA        | NA             | NA           | 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             | NA             | NA   | NA     | NA      | NA    |    |    |
| <b>PCBs</b><br>(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          | <b>5.15</b> | 0.117 U        | 0.117 U   | 0.108 U        | <b>0.552</b> | <b>0.179</b>   | <b>12.4</b> | <b>68.3 J</b> | <b>45.7 J</b> | <b>10.7 J</b> | <b>0.798 J</b> | <b>0.376 J</b> |      |        |         |       |    |    |
|                                       | Aroclor 1260           | 2                                 | 2        | 3        | 3        | 2      | 1           | ND                           | ND           | ND           | 0.1 U          | 0.13 U      | 0.117 U        | 0.117 U   | <b>0.141</b>   | 0.111 U      | 0.108 U        | 0.113 U     | 1.64 U        | 1.08 U        | 0.231 U       | <b>0.402 J</b> | <b>0.635 J</b> |      |        |         |       |    |    |
|                                       | 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          | <b>5.15</b> | 0.117 U        | 0.117 U   | <b>0.141</b>   | <b>0.552</b> | <b>0.179</b>   | <b>12.4</b> | <b>68.3 J</b> | <b>45.7 J</b> | <b>10.7 J</b> | <b>1.20 J</b>  | <b>1.011 J</b> |      |        |         |       |    |    |
|                                       | <b>Metals, total</b>   | Arsenic                           | 20       | 20       | 20       | 20     | 20          | NA                           | <b>1.52</b>  | <b>3.48</b>  | <b>6.79</b>    | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | NA             | NA   | 6.07   | NA      | NA    |    |    |
| Barium                                |                        | 1000                              | 1000     | 3000     | 3000     | 1000   | NA          | <b>27</b>                    | <b>58</b>    | <b>421</b>   | NA             | NA          | NA             | NA        | NA             | 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            | NA            | NA            | NA             | NA             | NA   | 0.29 U | NA      | NA    |    |    |
| Cadmium                               |                        | 2                                 | 2        | 30       | 30       | 2      | NA          | <b>0.44</b>                  | <b>0.8</b>   | <b>0.7</b>   | NA             | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | NA             | NA   | NA     | 6.49    | NA    | NA |    |
| Chromium                              |                        | 30                                | 30       | 200      | 200      | 30     | NA          | <b>16</b>                    | <b>9.15</b>  | <b>12</b>    | NA             | NA          | NA             | NA        | NA             | NA           | NA             | NA          | NA            | NA            | NA            | NA             | NA             | NA   | NA     | 8.82    | NA    | NA |    |
| Lead                                  |                        | 300                               | 300      | 300      | 300      | 300    | NA          | <b>38</b>                    | <b>191</b>   | <b>67</b>    | NA             | NA          | NA             | NA        | NA             | NA           | NA             | 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            | NA            | NA            | NA             | NA             | NA   | NA     | NA      | 24.9  | NA | NA |
| Mercury                               |                        | 20                                | 20       | 30       | 30       | 20     | NA          | <b>0.097</b>                 | <b>0.232</b> | <b>0.111</b> | NA             | NA          | NA             | NA        | NA             | NA           | 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            | 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            | 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            | 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            | 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            | 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 | 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 |          |          |           |           |           |           |           |           |           |          |          |          |          |          |          |          |          |          |          |          |  |  |  |  |  |  |
| <b>PAHs / Dibenzofuran</b> |                        |                                   |          |          |          |        |      |          |          |           |           |           |           |           |           |           |          |          |          |          |          |          |          |          |          |          |          |  |  |  |  |  |  |
| (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       | 0.193 U  | 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        | 0.189 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  |  |  |  |  |  |  |
|                            | 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       |  |  |  |  |  |  |
| <b>PCBs</b>                |                        |                                   |          |          |          |        |      |          |          |           |           |           |           |           |           |           |          |          |          |          |          |          |          |          |          |          |          |  |  |  |  |  |  |
| (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 |  |  |  |  |  |  |
| <b>Metals, total</b>       |                        |                                   |          |          |          |        |      |          |          |           |           |           |           |           |           |           |          |          |          |          |          |          |          |          |          |          |          |  |  |  |  |  |  |
|                            | 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.

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 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 |                 |                |             |               |               |             |               |               |                |           |                |                |                |          |
| <b>PAHs / Dibenzofuran</b><br>(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              | <b>0.244</b>   | 0.181 U     | 0.359 U       | <b>0.279</b>  | 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       | <b>0.413</b>  | 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       | <b>0.757</b>  | 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       | <b>0.467</b>  | 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       | <b>0.800</b>  | 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       | <b>0.291</b>  | 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       | <b>0.278</b>  | 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       | <b>0.853</b>  | 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       | <b>2.30</b>   | 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       | <b>0.333</b>  | 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       | <b>0.748</b>  | 0.182 U     | NA            | 0.233 U       | 0.185 U        | NA        | NA             | 0.172 U        | NA             |          |
|                                       | Naphthalene            | 40                                | 500      | 40       | 1000     | 4      | NA   | NA              | <b>0.525</b>   | 0.181 U     | 0.359 U       | <b>1.21</b>   | 0.182 U     | NA            | 0.233 U       | 0.185 U        | NA        | NA             | 0.172 U        | NA             |          |
|                                       | Phenanthrene           | 500                               | 500      | 1000     | 1000     | 10     | NA   | NA              | <b>0.260</b>   | 0.181 U     | 0.359 U       | <b>2.00</b>   | 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       | <b>1.52</b>   | 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       |
|                                       | <b>PCBs</b><br>(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    | <b>0.215 J</b>  | <b>0.299 J</b> | 0.0528 U    | <b>3.02 J</b> | 0.576 U       | 0.0532 U    | <b>2.45 J</b> | <b>4.34 J</b> | <b>0.141 J</b> | 0.0515 U  | <b>0.284 J</b> | <b>0.191 J</b> | <b>0.204 J</b> |          |
| Aroclor 1260                          |                        | 2                                 | 2        | 3        | 3        | 2      | 1    | <b>0.0863 J</b> | 0.0624 U       | 0.0528 U    | 0.108 U       | <b>26.6 J</b> | 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    | <b>0.3013 J</b> | <b>0.299 J</b> | 0.0528 U    | <b>3.02 J</b> | <b>26.6 J</b> | 0.0532 U    | <b>2.45 J</b> | <b>4.34 J</b> | <b>0.141 J</b> | 0.0515 U  | <b>0.284 J</b> | <b>0.191 J</b> | <b>0.204 J</b> |          |
| <b>Metals, total</b>                  | Arsenic                | 20                                | 20       | 20       | 20       | 20     | NA   | NA              | <b>14.2</b>    | <b>3.72</b> | <b>13.9</b>   | <b>11.3</b>   | 2.73 U      | NA            | <b>7.70</b>   | 2.77 U         | NA        | NA             | 2.58 U         | NA             |          |
|                                       | Barium                 | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | NA              | <b>343</b>     | <b>19.4</b> | <b>177</b>    | <b>227</b>    | 17.3        | NA            | <b>183</b>    | <b>15.2</b>    | NA        | NA             | <b>12.0</b>    | NA             |          |
|                                       | Beryllium              | 100                               | 100      | 200      | 200      | 100    | NA   | NA              | <b>0.93</b>    | 0.28 U      | <b>0.38</b>   | <b>0.63</b>   | 0.28 U      | NA            | <b>0.67</b>   | 0.28 U         | NA        | NA             | 0.26 U         | NA             |          |
|                                       | Cadmium                | 2                                 | 2        | 30       | 30       | 2      | NA   | NA              | <b>0.45</b>    | 0.28 U      | <b>1.52</b>   | <b>2.55</b>   | 0.28 U      | NA            | <b>1.41</b>   | 0.28 U         | NA        | NA             | 0.26 U         | NA             |          |
|                                       | Chromium               | 30                                | 30       | 200      | 200      | 30     | NA   | NA              | <b>13.0</b>    | <b>8.19</b> | <b>19.6</b>   | <b>27.0</b>   | <b>6.54</b> | NA            | <b>9.73</b>   | <b>7.40</b>    | NA        | NA             | <b>2.93</b>    | NA             |          |
|                                       | Lead                   | 300                               | 300      | 300      | 300      | 300    | NA   | NA              | <b>161</b>     | <b>3.90</b> | <b>1,030</b>  | <b>559</b>    | <b>5.02</b> | NA            | <b>982</b>    | <b>4.43</b>    | NA        | NA             | <b>4.78</b>    | NA             |          |
|                                       | Nickel                 | 20                                | 20       | 700      | 700      | 20     | NA   | NA              | <b>17.8</b>    | <b>4.07</b> | <b>13.8</b>   | <b>33.8</b>   | <b>3.12</b> | NA            | <b>11.7</b>   | <b>2.84</b>    | NA        | NA             | <b>2.49</b>    | NA             |          |
|                                       | Mercury                | 20                                | 20       | 30       | 30       | 20     | NA   | NA              | <b>0.079</b>   | 0.020 U     | <b>1.00</b>   | <b>0.161</b>  | 0.024 U     | NA            | <b>0.201</b>  | 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              | <b>1.42</b>    | <b>0.77</b> | <b>3.21</b>   | <b>9.48</b>   | 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         | <b>4.10</b> | 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              | <b>27.9</b>    | <b>9.65</b> | <b>16.7</b>   | <b>20.7</b>   | <b>7.18</b> | NA            | <b>18.4</b>   | <b>13.4</b>    | NA        | NA             | 5.15 U         | NA             |          |
|                                       | Zinc                   | 2500                              | 2500     | 3000     | 3000     | 2500   | NA   | NA              | <b>209</b>     | <b>15.9</b> | <b>336</b>    | <b>182</b>    | <b>18.6</b> | NA            | <b>367</b>    | <b>10.1</b>    | NA        | NA             | <b>12.6</b>    | 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.

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

\* - Depth not available in historical report.

**TABLE 3**  
**Summary of Analytical Detected Results for Soil Samples - 111 Greenwood Street**  
**New Bedford, MA**

| Analysis                           | Analyte                | Sample Location (see footnote 1) |          |          |          |        |      | 111 Comp 1<br>(111-GW-COM-1-S.M. and D) |              |             |             |              | 111 Comp 2<br>(111-GW-COM-2-S.M. and D) |              |              | 111 Comp 3<br>(111-GW-COM-3-S. and M) |              | 111 Comp 4<br>(111-GW-COM-4-S.M. and D) |              |            |              | 111 Comp 5<br>(111-GW-COM-5-S.M. and D) |              |                | 111 Comp 6<br>(111-GW-COM-6-S. and M) |             | 111 Greenwood Front Comp<br>(111-GW-F-COMP) | 111 Greenwood Rear Comp<br>(111-GW-R-COMP) |              |         |
|------------------------------------|------------------------|----------------------------------|----------|----------|----------|--------|------|---|--------------|-------------|-------------|--------------|---|--------------|--------------|---------------------------------------|--------------|---|--------------|------------|--------------|---|--------------|----------------|---------------------------------------|-------------|---|--|--------------|---------|
|                                    |                        | Sample Date:                     |          |          |          |        |      | 12/15/2005                              | 12/15/2005   |             | 12/15/2005  | 12/15/2005   | 12/15/2005                              | 12/15/2005   | 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     | 2/6/2006                              | 2/6/2006    |   |  |              |         |
|                                    |                        | Sample Depth (ft.):              |          |          |          |        |      | 0-3                                     | 3-6          |             | 3-6'        | 6-native     | 0-3                                     | 3-6          | 6-native     | 0-3                                   | 3-6          | 0-3                                     | 3-6          | 3-6'       | 6-native     | 0-3                                     | 3-6          | 6-native       | 0-3                                   | 3-6         | 0-0.5                                       | 0-0.5                                      |              |         |
|                                    |                        | S-1/GW-2                         | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC S-1 | TSCA | (S)                                     | (M)          | Field Dup   | (M)         | (D)          | (S)                                     | (M)          | (D)          | (S)                                   | (M)          | (S)                                     | (M)          | (M)        | (D)          | (S)                                     | (M)          | (D)            | (S)                                   | (M)         |   |  |              |         |
| <b>VOCs</b>                        | 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           |         |
|                                    | 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           |         |
|                                    | 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           |         |
|                                    | 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           |         |
|                                    | 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           |         |
|                                    | 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           |         |
|                                    | 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           |         |
|                                    | 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           |         |
| <b>PAHs / Dibenzofuran (mg/kg)</b> | Acenaphthene           | 1000                             | 1000     | 3000     | 3000     | 4      | NA   | 0.057 U                                 | 0.063 U      | NA          | ND          | 0.064 U      | 0.06 U                                  | <b>0.075</b> | NA           | <b>0.092</b>                          | 0.066 U      | 0.054 U                                 | 0.058 U      | ND         | <b>1.3</b>   | 0.059 U                                 | 0.065 U      | 0.062 U        | 0.059 U                               | <b>0.35</b> | <b>0.06</b>                                 |  | 0.062 U      |         |
|                                    | Acenaphthylene         | 600                              | 10       | 600      | 10       | 1      | NA   | 0.057 U                                 | 0.063 U      | NA          | ND          | 0.064 U      | <b>0.081</b>                            | 0.066 U      | <b>0.075</b> | 0.066 U                               | <b>0.11</b>  | 0.058 U                                 | ND           | 0.069 U    | <b>0.083</b> | 0.065 U                                 | 0.062 U      | <b>0.12</b>    | <b>0.34</b>                           | <b>0.14</b> | <b>0.063</b>                                |  | <b>0.063</b> |         |
|                                    | Anthracene             | 1000                             | 1000     | 3000     | 3000     | 1000   | NA   | <b>0.14</b>                             | 0.063 U      | NA          | ND          | 0.064 U      | 0.06 U                                  | <b>0.13</b>  | NA           | <b>0.38</b>                           | 0.066 U      | <b>0.18</b>                             | <b>0.061</b> | ND         | <b>2.6</b>   | <b>0.13</b>                             | 0.065 U      | 0.062 U        | <b>0.2</b>                            | <b>0.83</b> | <b>0.34</b>                                 | <b>0.15</b>                                |              |         |
|                                    | Benzo(a)anthracene     | 7                                | 7        | 40       | 40       | 7      | NA   | <b>0.57</b>                             | <b>0.16</b>  | NA          | <b>0.55</b> | <b>0.11</b>  | <b>0.27</b>                             | <b>0.5</b>   | NA           | <b>0.94</b>                           | <b>0.12</b>  | <b>0.48</b>                             | <b>0.19</b>  | ND         | <b>7.0</b>   | <b>0.33</b>                             | 0.065 U      | <b>0.085</b>   | <b>0.42</b>                           | <b>1.7</b>  | <b>1.4</b>                                  | <b>0.59</b>                                |              |         |
|                                    | Benzo(a)pyrene         | 2                                | 2        | 4        | 4        | 2      | NA   | <b>0.64</b>                             | <b>0.22</b>  | NA          | <b>0.55</b> | <b>0.13</b>  | <b>0.36</b>                             | <b>0.58</b>  | NA           | <b>0.76</b>                           | <b>0.12</b>  | <b>0.42</b>                             | <b>0.19</b>  | ND         | <b>5.4</b>   | <b>0.36</b>                             | 0.065 U      | <b>0.099</b>   | <b>0.36</b>                           | <b>1.6</b>  | <b>1.2</b>                                  | <b>0.49</b>                                |              |         |
|                                    | Benzo(b)fluoranthene   | 7                                | 7        | 40       | 40       | 7      | NA   | <b>1</b>                                | <b>0.5</b>   | NA          | <b>0.7</b>  | <b>0.26</b>  | <b>0.66</b>                             | <b>1.1</b>   | NA           | <b>1.2</b>                            | <b>0.29</b>  | <b>0.56</b>                             | <b>0.26</b>  | ND         | <b>7.0</b>   | <b>0.47</b>                             | 0.066 U      | <b>0.14</b>    | <b>0.5</b>                            | <b>2.2</b>  | <b>1.2</b>                                  | <b>0.38</b>                                |              |         |
|                                    | Benzo(k)fluoranthene   | 1000                             | 1000     | 3000     | 3000     | 1000   | NA   | <b>0.27</b>                             | <b>0.21</b>  | NA          | ND          | <b>0.072</b> | <b>0.18</b>                             | <b>0.23</b>  | NA           | <b>0.28</b>                           | <b>0.074</b> | <b>0.18</b>                             | <b>0.091</b> | ND         | <b>1.8</b>   | <b>0.31</b>                             | 0.065 U      | <b>0.081</b>   | <b>0.18</b>                           | <b>0.75</b> | <b>0.75</b>                                 | <b>0.32</b>                                |              |         |
|                                    | Benzo(g,h)perylene     | 70                               | 70       | 400      | 400      | 70     | NA   | <b>0.22</b>                             | <b>0.084</b> | NA          | ND          | 0.064 U      | <b>0.12</b>                             | <b>0.19</b>  | NA           | <b>0.28</b>                           | 0.066 U      | <b>0.2</b>                              | <b>0.08</b>  | ND         | <b>2.3</b>   | <b>0.14</b>                             | 0.065 U      | <b>0.062 U</b> | <b>0.14</b>                           | <b>0.72</b> | <b>0.72</b>                                 | <b>0.41</b>                                |              |         |
|                                    | Chrysene               | 70                               | 70       | 400      | 400      | 70     | NA   | <b>0.47</b>                             | <b>0.14</b>  | NA          | ND          | <b>0.099</b> | <b>0.22</b>                             | <b>0.45</b>  | NA           | <b>0.79</b>                           | <b>0.097</b> | <b>0.4</b>                              | <b>0.17</b>  | ND         | <b>5.3</b>   | <b>0.29</b>                             | 0.065 U      | <b>0.075</b>   | <b>0.39</b>                           | <b>1.4</b>  | <b>1.2</b>                                  | <b>0.48</b>                                |              |         |
|                                    | Dibenz(a,h)anthracene  | 0.7                              | 0.7      | 4        | 4        | 0.7    | NA   | <b>0.089</b>                            | 0.063 U      | NA          | ND          | 0.064 U      | 0.06 U                                  | <b>0.085</b> | NA           | <b>0.1</b>                            | 0.066 U      | <b>0.062</b>                            | 0.058 U      | ND         | <b>0.75</b>  | <b>0.076</b>                            | 0.065 U      | 0.062 U        | 0.059 U                               | <b>0.2</b>  | <b>0.2</b>                                  | <b>0.084</b>                               |              |         |
|                                    | Fluoranthene           | 1000                             | 1000     | 3000     | 3000     | 1000   | NA   | <b>1.5</b>                              | <b>0.26</b>  | NA          | <b>1</b>    | <b>0.23</b>  | <b>0.53</b>                             | <b>1.4</b>   | NA           | <b>2.6</b>                            | <b>0.22</b>  | <b>0.98</b>                             | <b>0.41</b>  | 0.42       | <b>8.0</b>   | <b>0.78</b>                             | <b>0.098</b> | <b>0.14</b>    | <b>0.84</b>                           | <b>3.6</b>  | <b>3</b>                                    | <b>1.2</b>                                 |              |         |
|                                    | Fluorene               | 1000                             | 1000     | 3000     | 3000     | 1000   | NA   | 0.057 U                                 | 0.063 U      | NA          | ND          | 0.064 U      | 0.06 U                                  | 0.066 U      | NA           | <b>0.15</b>                           | 0.066 U      | 0.054 U                                 | 0.058 U      | ND         | <b>0.98</b>  | 0.059 U                                 | 0.065 U      | 0.062 U        | 0.059 U                               | <b>0.37</b> | <b>0.061</b>                                | 0.062 U                                    |              |         |
|                                    | Indeno(1,2,3-cd)pyrene | 7                                | 7        | 40       | 40       | 7      | NA   | <b>0.29</b>                             | <b>0.2</b>   | NA          | ND          | <b>0.079</b> | <b>0.2</b>                              | <b>0.26</b>  | NA           | <b>0.31</b>                           | <b>0.082</b> | <b>0.2</b>                              | <b>0.1</b>   | ND         | <b>2.4</b>   | <b>0.31</b>                             | 0.065 U      | <b>0.074</b>   | <b>0.19</b>                           | <b>0.82</b> | <b>0.68</b>                                 | <b>0.28</b>                                |              |         |
|                                    | 2-Methylnaphthalene    | 80                               | 300      | 80       | 500      | 0.7    | NA   | 0.057 U                                 | 0.063 U      | NA          | ND          | 0.064 U      | 0.06 U                                  | 0.066 U      | NA           | <b>0.079</b>                          | 0.066 U      | 0.054 U                                 | 0.058 U      | ND         | <b>0.24</b>  | 0.059 U                                 | 0.065 U      | 0.062 U        | 0.059 U                               | <b>0.17</b> | <b>0.06 U</b>                               | 0.062 U                                    |              |         |
|                                    | Naphthalene            | 40                               | 500      | 40       | 1000     | 4      | NA   | 0.057 U                                 | 0.063 U      | NA          | ND          | 0.064 U      | 0.06 U                                  | 0.066 U      | NA           | <b>0.057</b>                          | 0.066 U      | 0.054 U                                 | 0.058 U      | ND         | <b>0.69</b>  | 0.059 U                                 | 0.065 U      | 0.062 U        | 0.059 U                               | <b>0.38</b> | <b>0.06 U</b>                               | 0.062 U                                    |              |         |
|                                    | Phenanthrene           | 500                              | 500      | 1000     | 1000     | 10     | NA   | <b>0.71</b>                             | <b>0.16</b>  | NA          | <b>0.6</b>  | <b>0.12</b>  | <b>0.15</b>                             | <b>0.71</b>  | NA           | <b>3</b>                              | <b>0.14</b>  | <b>0.64</b>                             | <b>0.23</b>  | ND         | <b>7.0</b>   | <b>0.48</b>                             | 0.065 U      | <b>0.082</b>   | <b>0.91</b>                           | <b>3.5</b>  | <b>1.3</b>                                  | <b>0.54</b>                                |              |         |
|                                    | Pyrene                 | 1000                             | 1000     | 3000     | 3000     | 1000   | NA   | <b>1.9</b>                              | <b>0.44</b>  | NA          | <b>0.91</b> | <b>0.37</b>  | <b>0.98</b>                             | <b>1.4</b>   | NA           | <b>2.5</b>                            | <b>0.42</b>  | <b>0.79</b>                             | <b>0.32</b>  | ND         | <b>9.5</b>   | <b>0.87</b>                             | <b>0.12</b>  | <b>0.18</b>    | <b>1.1</b>                            | <b>2.9</b>  | <b>2.8</b>                                  | <b>1.4</b>                                 |              |         |
|                                    | 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          | 0.06 U                                      | 0.062 U                                    |              |         |
| <b>PCBs (mg/kg)</b>                | Aroclor 1221           | 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  | NA   | 0.012 U      | 0.012 U |
|                                    | Aroclor 1232           | 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  | NA   | 0.025 U      | 0.025 U |
|                                    | Aroclor 1016/1242      | 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  | NA   | 0.012 U      | 0.012 U |
|                                    | Aroclor 1248           | 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  | NA   | 0.012 U      | 0.012 U |
|                                    | Aroclor 1254           | 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  | NA   | 0.431        | 0.234   |
|                                    | Aroclor 1260           | 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  | NA   | 0.291        | 0.216   |
|                                    | 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  | NA   | 0.012 U      | 0.012 U |
|                                    | 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  | NA   | 0.012 U      | 0.012 U |
|                                    | Total PCBs             | 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  | NA   | 0.722        | 0.45    |
| <b>Metals, total</b>               | Arsenic                | 20                               | 20       | 20       | 20       | 20     | NA   | <b>6.7</b>                              | <b>15</b>    | <b>13</b>   | <b>13</b>   | <b>11</b>    | <b>6.54</b>                             | <b>18</b>    | NA           | <b>11</b>                             | <b>21</b>    | <b>4.01</b>                             | <b>4.85</b>  | <b>4.7</b> | <b>21</b>    | <b>3.79</b>                             | <b>14</b>    | <b>5.8</b>     | <b>5.1</b>                            | <b>11</b>   | <b>4.43</b>                                 | <b>4.26</b>                                |              |         |
|                                    | Barium                 | 1000                             | 1000     | 3000     | 3000     | 1000   | NA   | <b>171</b>                              | <b>190</b>   | <b>193</b>  | <b>480</b>  | <b>72</b>    | <b>157</b>                              | <b>389</b>   | NA           | <b>1070</b>                           | <b>247</b>   | <b>54</b>                               | <b>52</b>    | <b>58</b>  | <b>183</b>   | <b>84</b>                               | <b>121</b>   | <b>116</b>     | <b>95</b>                             | <b>262</b>  | <b>68</b>                                   | <b>65</b>                                  |              |         |
|                                    | 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           |         |
|                                    | Cadmium                | 2                                | 2        | 30       | 30       | 2      | NA   | <b>1.46</b>                             | <b>2.89</b>  | <b>7.43</b> | <b>1.9</b>  | <b>1.67</b>  | <b>1.82 U</b>                           | <b>6.06</b>  | NA           | <b>1.57 U</b>                         | <b>1.84</b>  | <b>0.84</b>                             | <b>0.72</b>  | ND         | <b>2.47</b>  | <b>0.93</b>                             | <b>1.29</b>  | <b>1.45</b>    | <b>1.58</b>                           | <b>3.9</b>  | <b>0.81</b>                                 | <b>0.97</b>                                |              |         |
|                                    | Chromium               | 30                               | 30       | 200      | 200      |        |      |   |              |             |             |              |   |              |              |                                       |              |   |              |            |              |   |              |                |                                       |             |   |  |              |         |





**TABLE 3**  
**Summary of Analytical Detected Results for Soil Samples - 111 Greenwood Street**  
**New Bedford, MA**

| Analysis                                       | Analyte                 | Sample Location (see footnote 1): |          |          |          |        |                    | F.5-9<br>(F. 59) |                    |            |            | F.5-10<br>(F. 510) |            | G5.75<br>(G5. 75) |            |            | G9         |                  | G10        |            |            | H5.75<br>(H5. 75) |            |            | H9         |            |            |
|--|-------------------------|-----------------------------------|----------|----------|----------|--------|--------------------|------------------|--------------------|------------|------------|--------------------|------------|-------------------|------------|------------|------------|------------------|------------|------------|------------|-------------------|------------|------------|------------|------------|------------|
|  |                         | Sample Date:                      |          |          |          |        |                    | 12/19/2005       | 12/19/2005         | 12/19/2005 | 12/19/2005 | 12/15/2005         | 12/15/2005 | 12/15/2005        | 12/15/2005 | 12/19/2005 | 12/19/2005 | 12/15/2005       | 12/15/2005 | 12/15/2005 | 12/15/2005 | 12/15/2005        | 12/15/2005 | 12/15/2005 | 12/15/2005 | 12/15/2005 | 12/15/2005 |
|  |                         | Sample Depth (ft.):               |          |          |          |        |                    | 0.5-3            | 1-3 <sup>(*)</sup> | 3-6        | 6-7        | 0.5-3              | 3-6        | 0.5-3             | 3-6        | 6-9        | 3-6        | 3-6 <sup>*</sup> | 1-3        | 3-6        | 6-9        | 0.5-3             | 3-6        | 6-7.75     | 0.5-3      | 3-6        | 6-9        |
|  |                         | S-1/GW-2                          | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC S-1 | TSCA               |                  |                    |            |            |                    |            |                   |            |            |            |                  |            |            |            |                   |            |            |            |            |            |
| <b>VOCs</b>                                    | Trichloroethene         | 2                                 | 90       | 2        | 700      | 0.3    | NA                 | NA               | NA                 | NA         | 0.082 U    | NA                 | 0.053 U    | NA                | NA         | NA         | NA         | NA               | 0.048 U    | 0.035 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | 4-Methyl-2-pentanone    | 50                                | 400      | 50       | 400      | 0.4    | NA                 | NA               | NA                 | NA         | 0.41 U     | NA                 | 0.27 U     | NA                | NA         | NA         | NA         | NA               | 0.24 U     | 0.17 U     | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | Toluene                 | 500                               | 500      | 1000     | 1000     | 30     | NA                 | NA               | NA                 | NA         | 0.3        | NA                 | 0.053 U    | NA                | NA         | NA         | NA         | NA               | 0.048 U    | 0.035 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | Tetrachloroethene       | 10                                | 30       | 10       | 200      | 1      | NA                 | NA               | NA                 | NA         | 0.082 U    | NA                 | 0.96       | NA                | NA         | NA         | NA         | NA               | 0.048 U    | 0.035 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | Chlorobenzene           | 3                                 | 100      | 3        | 100      | 1      | NA                 | NA               | NA                 | NA         | 0.082 U    | NA                 | 0.053 U    | NA                | NA         | NA         | NA         | NA               | 0.048 U    | 0.035 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | Ethylbenzene            | 500                               | 500      | 1000     | 1000     | 40     | NA                 | NA               | NA                 | NA         | 0.084      | NA                 | 0.053 U    | NA                | NA         | NA         | NA         | NA               | 0.048 U    | 0.035 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | m & p-Xylene            | 300                               | 500      | 300      | 1000     | 300    | NA                 | NA               | NA                 | NA         | 0.38       | NA                 | 0.11 U     | NA                | NA         | NA         | NA         | NA               | 0.096 U    | 0.069 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
|  | Naphthalene             | 40                                | 500      | 40       | 1000     | 4      | NA                 | NA               | NA                 | NA         | 0.082 U    | NA                 | 0.053 U    | NA                | NA         | NA         | NA         | NA               | 0.048 U    | 0.035 U    | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
| <b>PAHs / Dibenzofuran</b><br>(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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
|  | 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         |
| <b>PCBs</b><br>(mg/kg)                         | Aroclor 1221            | 2                                 | 2        | 3        | 3        | 2      | 1                  | 0.218 U          | 0.243 U            | 0.23 U     | 0.261 U    | 0.2 U              | 0.8 U      | 0.2 U             | 0.2 U      | 0.2 U      | 0.236 U    | ND               | 0.2 U      | 0.2 U      | 0.2 U      | 0.2 U             | 0.2 U      | 0.2 U      | 0.2 U      | 0.2 U      | 0.2 U      |
|  | Aroclor 1232            | 2                                 | 2        | 3        | 3        | 2      | 1                  | 0.109 U          | 0.121 U            | 0.115 U    | 0.13 U     | 0.1 U              | 0.4 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.118 U    | ND               | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      |
|  | Aroclor 1016/1242       | 2                                 | 2        | 3        | 3        | 2      | 1                  | 0.109 U          | 0.121 U            | 0.115 U    | 0.13 U     | 0.1 U              | 0.4 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.118 U    | ND               | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      |
|  | Aroclor 1248            | 2                                 | 2        | 3        | 3        | 2      | 1                  | 0.109 U          | 0.121 U            | 0.115 U    | 0.13 U     | 0.1 U              | 0.4 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.118 U    | ND               | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      |
|  | Aroclor 1254            | 2                                 | 2        | 3        | 3        | 2      | 1                  | 0.109 U          | 0.121 U            | 0.115 U    | 0.13 U     | 0.1 U              | 1.668      | 0.1 U             | 0.1 U      | 0.1 U      | 0.118 U    | ND               | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U             | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      |
|  | Aroclor 1260            | 2                                 | 2        | 3        | 3        | 2      | 1                  | 0.278            | 0.121 U            | 0.43       | 0.538      | 0.1 U              | 0.4 U      | 0.374             | 0.1 U      | 0.1 U      | 0.246      | 0.12             | 0.773      | 1.229      | 0.538      | 0.474             | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 U      | 0.1 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                  | 0.278            | 0.243 U            | 0.43       | 0.538      | 0.2 U              | 1.668      | 0.374             | 0.2 U      | 0.2 U      | 0.246      | 0.12             | 0.773      | 1.229      | 0.538      | 0.474             | 0.251      | 0.218      | 0.2 U      | 0.2 U      | 0.2 U      |
| <b>Metals, total</b>                           | 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         |
|  | 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         |
|  | 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                 | 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         |
|  | 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         |
|  | 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                 | NA               | 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         | 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         | 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         |
| <b>Metals, TCLP</b><br>(mg/L)                  | Lead, TCLP              | NS                                | NS       | NS       | NS       | NS     | 5.0 <sup>(*)</sup> | NA               | NA                 | NA         | NA         | NA                 | NA         | NA                | NA         | NA         | NA         | NA               | NA         | NA         | NA         | NA                | NA         | NA         | NA         | NA         | NA         |
| <b>Total Petroleum Hydrocarbons</b><br>(mg/kg) | Diesel 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         |
|  | Gasoline Range Organics | 1000                              | 1000     | 3000     | 3000     |        |                    |                  |                    |            |            |                    |            |                   |            |            |            |                  |            |            |            |                   |            |            |            |            |            |



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<br>(98-RUG-COM-1-S,M, and D) |              |             | 98 Comp 2<br>(98-RUG-COM-2-S,M, and D) |              |             | 98 Comp 3<br>(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    | 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)         |           |              |              |             |             |              |              |         |
| <b>PAHs / Dibenzofuran</b><br>(mg/kg) | Acenaphthene           | 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                               | <b>0.8</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Acenaphthylene         | 600                               | 10       | 600      | 10       | 1      | NA   | 0.28 U                                 | 1            | <b>0.59</b> | 0.35 U                                 | 0.29 U       | 0.33 U      | <b>0.41</b>                          | <b>0.38</b> | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Anthracene             | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | <b>0.86</b>                            | <b>2.6</b>   | <b>1.6</b>  | <b>0.44</b>                            | 0.29 U       | <b>0.57</b> | <b>1.2</b>                           | <b>2.4</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Benzo(a)anthracene     | 7                                 | 7        | 40       | 40       | 7      | NA   | 1.7                                    | <b>5.1</b>   | <b>3.3</b>  | 1.1                                    | <b>0.49</b>  | 1.1         | 1.8                                  | <b>6.5</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Benzo(a)pyrene         | 2                                 | 2        | 4        | 4        | 2      | NA   | 1.4                                    | <b>5.3</b>   | <b>3.2</b>  | 1.1                                    | <b>0.52</b>  | 1.1         | 1.5                                  | <b>6.1</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Benzo(b)fluoranthene   | 7                                 | 7        | 40       | 40       | 7      | NA   | 1.9                                    | <b>7.1</b>   | <b>5</b>    | 1.6                                    | <b>0.74</b>  | 2.1         | 2                                    | <b>9</b>    | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Benzo(g,h,i)perylene   | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | <b>0.73</b>                            | <b>2</b>     | <b>1.2</b>  | <b>0.42</b>                            | <b>0.31</b>  | <b>0.66</b> | <b>0.55</b>                          | <b>2.1</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Benzo(k)fluoranthene   | 70                                | 70       | 400      | 400      | 70     | NA   | <b>0.65</b>                            | <b>2.3</b>   | <b>1.3</b>  | <b>0.49</b>                            | 0.29 U       | <b>0.57</b> | <b>0.65</b>                          | <b>2.9</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Chrysene               | 70                                | 70       | 400      | 400      | 70     | NA   | 1.4                                    | <b>3.9</b>   | <b>2.6</b>  | <b>0.93</b>                            | <b>0.45</b>  | <b>0.88</b> | 1.5                                  | <b>5.4</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Dibenz(a,h)anthracene  | 0.7                               | 0.7      | 4        | 4        | 0.7    | NA   | 0.28 U                                 | <b>0.7</b>   | <b>0.46</b> | 0.35 U                                 | 0.29 U       | 0.33 U      | 0.29 U                               | <b>0.88</b> | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Fluoranthene           | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | <b>3.9</b>                             | <b>14</b>    | <b>8.8</b>  | <b>2.2</b>                             | <b>1.1</b>   | <b>2.1</b>  | <b>3.5</b>                           | <b>15</b>   | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Fluorene               | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | <b>0.34</b>                            | <b>1</b>     | <b>0.64</b> | 0.35 U                                 | 0.29 U       | 0.33 U      | 0.29 U                               | <b>0.91</b> | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Indeno(1,2,3-cd)pyrene | 7                                 | 7        | 40       | 40       | 7      | NA   | <b>0.85</b>                            | <b>2.5</b>   | <b>1.5</b>  | <b>0.51</b>                            | 0.29 U       | <b>0.72</b> | <b>0.66</b>                          | <b>2.5</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | 2-Methylnaphthalene    | 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           |         |
|                                       | Naphthalene            | 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           |         |
|                                       | Phenanthrene           | 500                               | 500      | 1000     | 1000     | 10     | NA   | 3.4                                    | <b>12</b>    | <b>7.6</b>  | 1.4                                    | <b>0.84</b>  | 1.9         | 2.5                                  | <b>10</b>   | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Pyrene                 | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | 3.1                                    | <b>11</b>    | <b>7</b>    | 1.9                                    | <b>0.96</b>  | 1.7         | 3.7                                  | <b>12</b>   | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Dibenzofuran           | NS                                | NS       | NS       | NS       | 100    | NA   | 0.28 U                                 | <b>0.55</b>  | <b>0.37</b> | 0.35 U                                 | 0.29 U       | 0.33 U      | 0.29 U                               | <b>0.39</b> | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | <b>PCBs</b><br>(mg/kg) | 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   | <b>1.09</b>  | <b>0.398</b> | <b>13.3</b> | <b>4.28</b> | 1.2          | <b>0.865</b> |         |
| Aroclor 1260                          |                        | 2                                 | 2        | 3        | 3        | 2      | 1    | NA                                     | NA           | NA          | NA                                     | NA           | NA          | NA                                   | NA          | 0.134 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   | <b>0.593</b> | 0.114 U      | 0.134 U     | 0.153 U     | <b>0.406</b> | 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     | <b>1.683</b> | <b>0.398</b> | <b>13.3</b> | <b>4.28</b> | <b>1.606</b> | <b>0.865</b> |         |
| <b>Metals, total</b>                  |                        | Arsenic                           | 20       | 20       | 20       | 20     | 20   | NA                                     | <b>3.86</b>  | <b>22</b>   | <b>23</b>                              | <b>34</b>    | <b>16</b>   | <b>16</b>                            | <b>5.52</b> | <b>13</b> | NA           | NA           | NA          | NA          | NA           | NA           | NA      |
|                                       | Barium                 | 1000                              | 1000     | 3000     | 3000     | 1000   | NA   | <b>237</b>                             | <b>234</b>   | <b>325</b>  | <b>440</b>                             | <b>226</b>   | <b>338</b>  | <b>124</b>                           | <b>441</b>  | 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           |         |
|                                       | Cadmium                | 2                                 | 2        | 30       | 30       | 2      | NA   | <b>1.07</b>                            | <b>6.67</b>  | <b>4.47</b> | <b>5.24</b>                            | <b>2.95</b>  | <b>5.13</b> | <b>1.35</b>                          | <b>3.52</b> | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Chromium               | 30                                | 30       | 200      | 200      | 30     | NA   | <b>12</b>                              | <b>31</b>    | <b>54</b>   | <b>60</b>                              | <b>23</b>    | <b>28</b>   | <b>20</b>                            | <b>24</b>   | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Lead                   | 300                               | 300      | 300      | 300      | 300    | NA   | <b>404</b>                             | <b>566</b>   | <b>2460</b> | <b>646</b>                             | <b>857</b>   | <b>1190</b> | <b>225</b>                           | <b>1990</b> | 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           |         |
|                                       | Mercury                | 20                                | 20       | 30       | 30       | 20     | NA   | <b>0.281</b>                           | <b>0.311</b> | <b>1.44</b> | <b>1.28</b>                            | <b>0.642</b> | <b>1.02</b> | <b>0.315</b>                         | <b>2.7</b>  | NA        | NA           | NA           | NA          | NA          | NA           | NA           |         |
|                                       | Selenium               | 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           |         |
|                                       | Silver                 | 100                               | 100      | 200      | 200      | 100    | NA   | <b>0.36</b>                            | <b>0.58</b>  | <b>0.52</b> | <b>0.66</b>                            | <b>0.46</b>  | <b>0.81</b> | 0.39 U                               | <b>2.07</b> | 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           |         |
|                                       | Vanadium               | 600                               | 600      | 1000     | 1000     | 600    | 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           |         |

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

| Analysis                              | Analyte                | Sample Location (see footnote 1): |          |          |          |        |      | A5.75<br>(A5_75) |              |              | A5          |           |           |              | B2        | B5.75<br>(B5_75) |              |              | C1.3<br>(C1_3) | C2           |              | C5.25<br>(C5_25) |              |              |
|---------------------------------------|------------------------|-----------------------------------|----------|----------|----------|--------|------|------------------|--------------|--------------|-------------|-----------|-----------|--------------|-----------|------------------|--------------|--------------|----------------|--------------|--------------|------------------|--------------|--------------|
|                                       |                        | 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    | 6/20/2006        | 6/20/2006    |              |
|                                       |                        | Sample Depth (ft.):               |          |          |          |        |      | 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          | 0.5-3            | 3-7          | 7-10         |
|                                       |                        | S-1/GW-2                          | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC S-1 | TSCA |                  |              |              |             |           | Field Dup |              |           |                  |              |              |                |              | Field Dup    |                  |              |              |
| <b>PAHs / Dibenzofuran</b><br>(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           |
|                                       | Acenaphthylene         | 600                               | 10       | 600      | 10       | 1      | 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           |
|                                       | 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           |
|                                       | 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           |
|                                       | 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           |
|                                       | 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           |
|                                       | 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           |
|                                       | Chrysene               | 70                                | 70       | 400      | 400      | 70     | 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           |
|                                       | Fluoranthene           | 1000                              | 1000     | 3000     | 3000     | 1000   | 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           |
|                                       | 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           |
|                                       | 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           |
|                                       | Naphthalene            | 40                                | 500      | 40       | 1000     | 4      | 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           |
|                                       | Pyrene                 | 1000                              | 1000     | 3000     | 3000     | 1000   | 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           |
| <b>PCBs</b><br>(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    | <b>1.08</b>      | 0.136 U      | 0.138 U      | 0.121       | NA        | 0.122 U   | <b>0.165</b> | 0.109 U   | <b>2.26</b>      | 0.127 U      | 0.12 U       | 0.109 U        | NA           | 0.101 U      | <b>1.39</b>      | 0.121 U      | <b>0.687</b> |
|                                       | Aroclor 1260           | 2                                 | 2        | 3        | 3        | 2      | 1    | 0.13 U           | <b>0.187</b> | <b>0.288</b> | 0.116 U     | NA        | 0.13      | <b>0.148</b> | 0.109 U   | 0.123 U          | <b>0.616</b> | <b>0.992</b> | 0.109 U        | NA           | <b>0.752</b> | 0.124 U          | <b>0.515</b> | 0.133 U      |
|                                       | Aroclor 1262           | 2                                 | 2        | 3        | 3        | 2      | 1    | <b>0.288</b>     | 0.136 U      | 0.138 U      | 0.116 U     | NA        | 0.122 U   | 0.148 U      | 0.109 U   | <b>0.772</b>     | 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    | <b>1.368</b>     | <b>0.187</b> | <b>0.288</b> | <b>1.21</b> | NA        | 0.122 U   | <b>0.165</b> | 0.109 U   | <b>3.032</b>     | <b>0.616</b> | <b>0.992</b> | 0.109 U        | <b>0.752</b> | <b>0.752</b> | <b>1.39</b>      | <b>0.515</b> | <b>0.687</b> |
|                                       | <b>Metals, total</b>   | Arsenic                           | 20       | 20       | 20       | 20     | 20   | 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.

\* = 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<br>(C5_75) |           | D1.3<br>(D1_3) | D5.25     |           |           | K1.3<br>(K1_3) |           | K5.5<br>(K5_5) |           | L1.3<br>(L1_3) |           | M1.3<br>(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 |                  |           |                |           |           |           |                |           |                |           |                |           |                |         |
| <b>PAHs / Dibenzofuran</b><br>(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             | NA      |
| <b>PCBs</b><br>(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    |
| <b>Metals, total</b>                  | 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.

<sup>1</sup> = 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<br>(108-RUG-COM-1-S,M, and D) |            |            | 108 Comp 2<br>(108-RUG-COM-2-S,M, and D) |            |            | 108 Comp 3<br>(108-RUG-COM-3-S,M, and D) |            |            | 108 Comp 4<br>(108-RUG-COM-4-S,M, and D) |            |            | 108 Comp 5<br>(108-RUG-COM-5-S,M, and D) |            |            | 108 Ruggles Front<br>(108-RUG-FRONT) |          | 108 Ruggles Front Comp<br>(108-RUG-F-COMP) |          | 108 Ruggles Rear<br>(108-RUG-REAR) |          | 108 Ruggles Rear<br>Comp<br>(108-RUG-REAR) |         |         |         |    |    |    |
|---------------------|------------------------|----------------------------------|----------|----------|----------|--------|------|--|------------|------------|--|------------|------------|--|------------|------------|--|------------|------------|--|------------|------------|--------------------------------------|----------|--|----------|------------------------------------|----------|--|---------|---------|---------|----|----|----|
|                     |                        | Sample Date:                     |          |          |          |        |      | 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                           | 2/6/2006 | 2/6/2006                                   | 2/6/2006 | 2/6/2006                           | 2/6/2006 | 2/6/2006                                   |         |         |         |    |    |    |
|                     |                        | Sample Depth (ft.):              |          |          |          |        |      | 0-3                                      | 3-6        | 6-native   | 0-3                                      | 0-3        | 3-6        | 6-native                                 | 0-3        | 3-6        | 6-native                                 | 0-3        | 3-6        | 6-native                                 | 0-3        | 3-6        | 6-native                             | 0-0.5    | *  | 0-.25    | 0-0.5                              | 0-0.5    | 2/6/2006                                   |         |         |         |    |    |    |
|                     |                        | S-1/GW-2                         | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC S-1 | TSCA | (S)                                      | (M)        | (D)        | (S)                                      | Field Dup  | (M)        | (D)                                      | (S)        | (M)        | (D)                                      | (S)        | (M)        | (D)                                      | (S)        | (M)        | (D)                                  |          |  |          |                                    |          |  |         |         |         |    |    |    |
| 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 |    |
|                     | 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 |
|                     | 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 |
|                     | 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 |
| PAHs / Dibenzofuran | 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 |    |    |
|                     | Acenaphthylene         | 600                              | 10       | 600      | 10       | 1      | NA   | 0.13                                     | 0.58 U     | 0.085 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      | 0.061 U | NA      |    |    |    |
|                     | 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                                     | 0.08       | 0.09 U     | NA                                       | 6          | 0.93       | NA                                   | 0.670    | 0.140                                      | NA       | NA                                 | NA       | NA   | NA      | 0.180   | NA      |    |    |    |
|                     | 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         | 7.6        | 2.1                                  | NA       | 1.80                                       | 0.440    | NA                                 | NA       | NA   | 0.610   | NA      |         |    |    |    |
|                     | 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   | 0.500   | NA      |         |    |    |    |
|                     | 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   | 0.440   | NA      |         |    |    |    |
|                     | Benzo(g,h,i)perylene   | 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       | 0.09 U     | NA                                       | 2          | 0.54       | NA                                   | 0.870    | 0.230                                      | NA       | NA                                 | NA       | 0.350                                      | NA      |         |         |    |    |    |
|                     | Benzo(k)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   | 0.390   | NA      |         |    |    |    |
|                     | 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   | 0.490   | NA      |         |    |    |    |
|                     | Dibenz(a,h)anthracene  | 0.7                              | 0.7      | 4        | 4        | 0.7    | NA   | 0.63                                     | 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   | 0.096   | NA      |         |    |    |    |
|                     | 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   | 1.5     | NA      |         |    |    |    |
|                     | 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   | 0.064   | NA      |         |    |    |    |
|                     | 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   | 0.300   | NA      |         |    |    |    |
|                     | 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   | 0.061 U | NA      |         |    |    |    |
|                     | 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   | 0.061 U | NA      |         |    |    |    |
|                     | 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   | 0.840   | NA      |         |    |    |    |
|                     | 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       | 0.19 U                                   | NA         | 14         | 2.2                                  | NA       | 5.00                                       | 1.10     | NA                                 | NA       | NA   | 1.3     | NA      |         |    |    |    |
|                     | Dibenzofuran           | NS                               | NS       | NS       | NS       | 100    | NA   | ND                                       | 1.5        | 0.31       | ND                                       | NA         | ND         | ND                                       | ND         | ND         | ND                                       | ND         | ND         | ND                                       | NA         | 2.4        | 0.19                                 | NA       | 0.200                                      | 0.073 U  | NA                                 | NA       | NA   | 0.061 U | NA      |         |    |    |    |
| PCBs                | Aroclor 1221           | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
|                     | Aroclor 1232           | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
|                     | Aroclor 1016/1242      | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
|                     | Aroclor 1248           | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
|                     | Aroclor 1254           | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
|                     | Aroclor 1260           | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
|                     | 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       | 0.066                                      | NA       | 0.014 U                            | 0.07     | ND   | 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       | 0.012 U                                    | NA       | 0.014 U                            | 0.012 U  | ND   | NA      | NA      |         |    |    |    |
|                     | Total PCBs             | 2                                | 2        | 3        | 3        | 2      | 1    | NA                                       | 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      |         |    |    |    |
| 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   | 3.08    | NA      |         |    |    |    |
|                     | 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   | 57      | 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      |    |    |    |
|                     | 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   | 0.85    | NA      |         |    |    |    |
|                     | 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   | 9.6     | NA      |         |    |    |    |
|                     | Lead                   | 300                              | 300      | 300      | 300      | 300    | NA   | 31                                       |            |            |  |            |            |  |            |            |  |            |            |  |            |            |                                      |          |  |          |                                    |          |  |         |         |         |    |    |    |







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.):               |          |          |          |        |      | 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 |  |  |  |  |  |
|                                      |                         |                                   |          |          |          | 0.5-3  | 3-6  | 6-9                | 1.5-3      | 1.5-3*     | 3-6        | 7-8        | 6-6.5      | 3-6        | 6-8.5      | 0.5-3      | 3-6        | 6-9        | 6-9<br>Field Dup | 0.5-3      | 6-9        | 3-6        | 6-8        |            |            |            |  |  |  |  |  |
|                                      |                         | 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   | 0.065 U            | 0.081 U    | 0.08 U     | NA         | NA         | NA         | NA         | NA         | 0.059 U    | 0.062 U    | 0.13 U     | NA               | NA         | 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         | 0.29 U     | 0.31 U     | 0.64 U     | NA               | NA         | 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         | 0.059 U    | 0.062 U    | 0.13 U     | NA               | NA         | 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         | 0.059 U    | 0.062 U    | 0.13 U     | NA               | NA         | 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         | 0.059 U    | 0.062 U    | 0.13 U     | NA               | NA         | 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         | 0.059 U    | 0.062 U    | 0.13 U     | NA               | NA         | 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         | 0.12 U     | 0.12 U     | 0.26 U     | NA               | NA         | 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         | 0.059 U    | 0.062 U    | 0.13 U     | 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         |  |  |  |  |  |
|                                      | 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    | 3.644              | 0.14 U     | 0.14 U     | 0.109 U    | ND         | 0.308      | 0.154 U    | 0.107 U    | 0.122 U    | 0.158 U    | 1.35       | 0.295            | 0.204 U    | 0.139 U    | 1.2        | 0.137 U    | 0.108 U    | 0.137 U    |            |  |  |  |  |  |
| Aroclor 1260                         |                         | 2                                 | 2        | 3        | 3        | 2      | 1    | 1.6                | 0.26       | 0.14 U     | 0.109 U    | 0.11       | 0.119 U    | 0.154 U    | 0.107 U    | 0.122 U    | 0.158 U    | 1.42       | 0.298            | 0.204 U    | 0.139 U    | 1.027      | 0.137 U    | 0.43       | 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    | 5.244              | 0.26       | 0.28 U     | 0.219 U    | 0.11       | 0.308      | 0.309 U    | 0.254 U    | 0.216      | 0.315 U    | 2.77       | 0.593            | 0.409 U    | 0.278 U    | 2.227      | 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 <sup>(5)</sup> | 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 | 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 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

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  |            |            |            |            |
| <b>VOCs</b>                                    | 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         |
|  | <b>PAHs / Dibenzofuran</b><br>(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         |            |
| <b>PCBs</b><br>(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      |
|  | <b>Metals, total</b>                  |                                   |          |          |          |                    |       |            |            |            |            |
| Arsenic  | 20                                    | 20                                | 20       | 20       | 20       | NA                 | 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         |            |
| <b>Metals, TCLP</b><br>(mg/L)                  |                                       |                                   |          |          |          |                    |       |            |            |            |            |
| Lead, TCLP                                     | NS                                    | NS                                | NS       | NS       | NS       | 5.0 <sup>(5)</sup> | NA    | NA         | NA         | NA         |            |
| <b>Total Petroleum Hydrocarbons</b><br>(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         |            |

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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.  
<sup>1</sup> - 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<br>(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 |              |
|  |                         | 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               |                    |            |             |             |              |            |            |              |
| <b>VOCs</b>                                    | 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      |
| <b>PAHs / Dibenzofuran</b><br>(mg/kg)          | Acenaphthene            | 1000                              | 1000     | 3000     | 3000     | 4      | NA                 | 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           |
| <b>PCBs</b><br>(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                  | <b>0.592</b>       | ND         | <b>0.48</b> | ND          | <b>0.351</b> | ND         | 0.1 U      | <b>0.527</b> |
|  | Aroclor 1260            | 2                                 | 2        | 3        | 3        | 2      | 1                  | ND                 | ND         | ND          | <b>0.38</b> | 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                  | <b>0.592</b>       | ND         | <b>0.48</b> | <b>0.38</b> | <b>0.351</b> | ND         | 0.2 U      | <b>0.527</b> |
| <b>Metals, total</b>                           | 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           |
|  | Vanadium                | 600                               | 600      | 1000     | 1000     | 600    | NA                 | NA                 | NA         | NA          | NA          | NA           | NA         | NA         | NA           |
|  | Zinc                    | 2500                              | 2500     | 3000     | 3000     | 2500   | NA                 | NA                 | NA         | NA          | NA          | NA           | NA         | NA         | NA           |
| <b>Metals, TCLP</b><br>(mg/L)                  | Lead, TCLP              | NS                                | NS       | NS       | NS       | NS     | 5.0 <sup>(5)</sup> | NA                 | NA         | NA          | NA          | NA           | NA         | NA         | NA           |
| <b>Total Petroleum Hydrocarbons</b><br>(mg/kg) | Diesel Range Organics   | 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:**  
(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.  
<sup>1</sup> - Split sample with Goldman Environmental, analyzed by Groundwater Analytical; lab report not available in historical data.  
\* - Depth not available in historical report.

# FIGURES





| 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  |

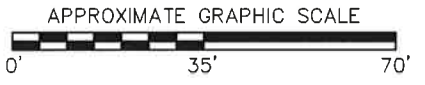
● SOIL BORING ● SOIL BORING THAT HAS CONCENTRATION WITH EXCEEDANCE

NOTES:  
 ALL UNITS IN MG/KG UNLESS OTHERWISE SPECIFIED.  
 MG/KG - MILLIGRAMS PER KILOGRAM (DRY WEIGHT).  
 COM/COMP - COMPOSITE SAMPLE.  
 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 | 12/19/05 | Constituent | 0.00 - 3.00 | SAMPLE DEPTH RANGE IN FEET |
|-----------------|----------------|----------|-------------|-------------|----------------------------|
| 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** Wannalancit Mills  
650 Suffolk Street  
Lowell, MA 01854  
(978) 970-5600

FIGURE 2

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



| SB-189<br>06/10/08<br>Constituent | 1.00     | 3.50     | 7.00    | 11       |
|-----------------------------------|----------|----------|---------|----------|
| BAP                               | NA       | 0.175 U  | 0.184 U | NA       |
| Total PCBs                        | 0.0673 J | 0.0509 U | 0.191 J | 0.0531 U |
| Arsenic                           | NA       | 2.87     | 2.78 U  | NA       |
| Cadmium                           | NA       | 0.27 U   | 0.28 U  | NA       |
| Chromium                          | NA       | 4.83     | 4.61    | NA       |
| Lead                              | NA       | 4.5      | 31.1    | NA       |
| Nickel                            | NA       | 3.16     | 2.6     | NA       |

| SB-188<br>06/10/08<br>Constituent | 1.00    | 4.50    | 9.00     |
|-----------------------------------|---------|---------|----------|
| BAP                               | NA      | 0.89    | 0.181 U  |
| Total PCBs                        | 0.580 J | 0.742 J | 0.0510 U |
| Arsenic                           | NA      | 22.8    | 4.33     |
| Cadmium                           | NA      | 1.3     | 0.28 U   |
| Chromium                          | NA      | 28.1    | 9.83     |
| Lead                              | NA      | 801     | 4.34     |
| Nickel                            | NA      | 30.8    | 6.31     |

| SB-187<br>06/09/08<br>Constituent | 4.00     | 6.00   |
|-----------------------------------|----------|--------|
| BAP                               | NA       | 0.602  |
| Total PCBs                        | 0.2699 J | 5.88 J |
| Arsenic                           | NA       | 32     |
| Cadmium                           | NA       | 2.44   |
| Chromium                          | NA       | 41.9   |
| Lead                              | NA       | 846    |
| Nickel                            | NA       | 33.6   |

| SB-185<br>06/09/08<br>Constituent | 2.00   | 4.00   | 6.00   |
|-----------------------------------|--------|--------|--------|
| BAP                               | NA     | NA     | 1.75   |
| Total PCBs                        | 88.3 J | 45.7 J | 10.7 J |
| Arsenic                           | NA     | NA     | 6.07   |
| Cadmium                           | NA     | NA     | 6.49   |
| Chromium                          | NA     | NA     | 8.82   |
| Lead                              | NA     | NA     | 673    |
| Nickel                            | NA     | NA     | 24.9   |

| SB-196<br>06/10/08<br>Constituent | 1.00    | 3.50    | 8.00    |
|-----------------------------------|---------|---------|---------|
| BAP                               | NA      | 0.172 U | NA      |
| Total PCBs                        | 0.284 J | 0.191 J | 0.204 J |
| Arsenic                           | NA      | 2.58 U  | NA      |
| Cadmium                           | NA      | 0.26 U  | NA      |
| Chromium                          | NA      | 2.93    | NA      |
| Lead                              | NA      | 4.78    | NA      |
| Nickel                            | NA      | 2.49    | NA      |

| K1_3<br>06/20/06<br>Constituent | DUP | 0.50-3.00 | 7.50-8.00 |
|---------------------------------|-----|-----------|-----------|
| Total PCBs                      | ND  |           | 5.150     |

| L1_3<br>06/20/06<br>Constituent | 1.00-4.00 | 9.00-10.00 |
|---------------------------------|-----------|------------|
| Total PCBs                      | 0.141     | 0.552      |

| K5_5<br>06/20/06<br>Constituent | 0.50-3.00 | 5.00-7.00 |
|---------------------------------|-----------|-----------|
| Total PCBs                      | ND        | ND        |

| SB-190<br>06/09/08<br>Constituent | 1.00    | 4.00    | DUP     | 4.00    | 6.00     | 8.00 |
|-----------------------------------|---------|---------|---------|---------|----------|------|
| BAP                               | 0.495   | 9.96 U  | 9.63 U  | NA      | 0.182 U  |      |
| Total PCBs                        | 0.425 J | 0.199 J | 0.429 J | 0.974 J | 0.0522 U |      |
| Arsenic                           | 5.87    | 11.5    | 8.08    | NA      | 4.1      |      |
| Cadmium                           | 1.15    | 1.26    | 1.74    | NA      | 0.28 U   |      |
| Chromium                          | 14.3    | 122     | 45.5    | NA      | 10.8     |      |
| Lead                              | 258     | 1510    | 460     | NA      | 3.87     |      |
| Nickel                            | 7.75    | 25.5    | 13.7    | NA      | 4.44     |      |

| 102-GW-COM-1<br>06/20/06<br>Constituent | 0.00-3.00 | 3.00-6.00 | 6.00-Native |
|---|-----------|-----------|-------------|
| BAP                                     | 0.43      | 0.27 U    | 0.29 U      |
| Total PCBs                              | ND        | ND        | ND          |
| Arsenic                                 | 1.52      | 3.48      | 6.79        |
| Cadmium                                 | 0.44      | 0.8       | 0.7         |
| Chromium                                | 16        | 9.5       | 12          |
| Lead                                    | 38        | 191       | 67          |
| Nickel                                  | NA        | NA        | NA          |

| M1_3<br>06/20/06<br>Constituent | 3.00-4.00 | 7.50-8.00 |
|---------------------------------|-----------|-----------|
| Total PCBs                      | 0.179     | 12.400    |

| SB-191<br>06/09/08<br>Constituent | 1.00    | 4.00     | 8.00     |
|-----------------------------------|---------|----------|----------|
| BAP                               | NA      | 0.22 U   | 0.186 U  |
| Total PCBs                        | 0.142 J | 0.0648 U | 0.0522 U |
| Arsenic                           | NA      | 8.23     | 4.2      |
| Cadmium                           | NA      | 0.37     | 0.28 U   |
| Chromium                          | NA      | 14.8     | 8.17     |
| Lead                              | NA      | 219      | 4.39     |
| Nickel                            | NA      | 9.9      | 3.99     |

| SB-192<br>06/09/08<br>Constituent | 1.00     | 4.00     | 9.00     |
|-----------------------------------|----------|----------|----------|
| 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     |

| SB-194<br>06/09/08<br>Constituent | 1.00    | 4.00   | 9.00     |
|-----------------------------------|---------|--------|----------|
| BAP                               | 0.359 U | 0.467  | 0.182 U  |
| Total PCBs                        | 3.02 J  | 26.6 J | 0.0532 U |
| Arsenic                           | 13.9    | 11.3   | 2.73 U   |
| Cadmium                           | 1.52    | 2.55   | 0.28 U   |
| Chromium                          | 19.6    | 27     | 6.54     |
| Lead                              | 1030    | 559    | 5.02     |
| Nickel                            | 13.8    | 33.8   | 3.12     |

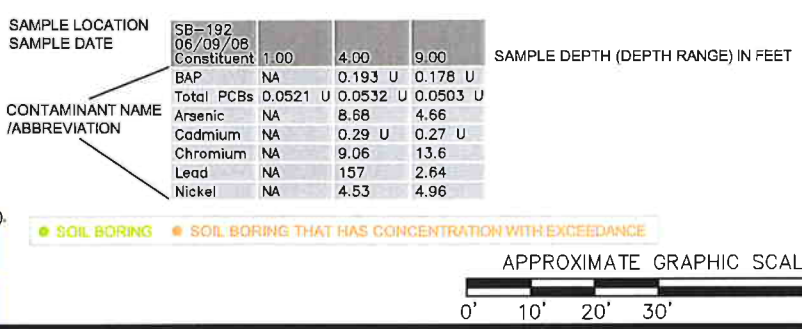
| SB-193<br>06/09/08<br>Constituent | 1.00     | 4.00    | 10.00    |
|-----------------------------------|----------|---------|----------|
| BAP                               | NA       | 0.211 U | 0.181 U  |
| Total PCBs                        | 0.3013 J | 0.299 J | 0.0526 U |
| Arsenic                           | NA       | 14.2    | 3.72     |
| Cadmium                           | NA       | 0.45    | 0.28 U   |
| Chromium                          | NA       | 13      | 8.19     |
| Lead                              | NA       | 161     | 3.9      |
| Nickel                            | NA       | 17.8    | 4.07     |

| SB-186<br>06/09/08<br>Constituent | 2.00   | 3.40    |
|-----------------------------------|--------|---------|
| BAP                               | NA     | NA      |
| Total PCBs                        | 1.20 J | 1.011 J |
| Arsenic                           | NA     | NA      |
| Cadmium                           | NA     | NA      |
| Chromium                          | NA     | NA      |
| Lead                              | NA     | NA      |
| Nickel                            | NA     | NA      |

| SB-195*<br>06/10/08<br>Constituent | 1.00   | 7.50    | 9.00    | 11.00    |
|------------------------------------|--------|---------|---------|----------|
| BAP                                | NA     | 0.233 U | 0.185 U | NA       |
| Total PCBs                         | 2.45 J | 4.34 J  | 0.141 J | 0.0515 U |
| Arsenic                            | NA     | 7.7     | 2.77 U  | NA       |
| Cadmium                            | NA     | 1.41    | 0.28 U  | NA       |
| Chromium                           | NA     | 9.73    | 7.4     | NA       |
| Lead                               | NA     | 982     | 4.43    | NA       |
| Nickel                             | NA     | 11.7    | 2.84    | NA       |

| Contaminant          | S-1/GW-2 | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC S-1 | TSCA |
|----------------------|----------|----------|----------|----------|--------|------|
| Benzo(a)pyrene (BAP) | 2        | 2        | 4        | 4        | 2      | N/A  |
| Total PCBs           | 2        | 2        | 3        | 3        | 2      | 1    |
| Arsenic              | 20       | 20       | 20       | 20       | 20     | 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  |
| Nickel               | 20       | 20       | 700      | 700      | 20     | N/A  |

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.



102 GREENWOOD STREET  
 NEW BEDFORD, MASSACHUSETTS  
 ANALYTICAL RESULTS SUMMARY MAP  
 TRC AND BETA DATA

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

DRAWN BY: PZ  
 CHECKED BY: DP

DATE:  
 JUNE 2009

FIGURE  
 3





| 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 | SAMPLE DATE | Constituent | Concentration | SAMPLE DEPTH RANGE IN FEET |
|-----------------|-------------|-------------|---------------|----------------------------|
| 111-GW-COM-4-D  | 12/19/05    | 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**

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

**FIGURE 4**

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



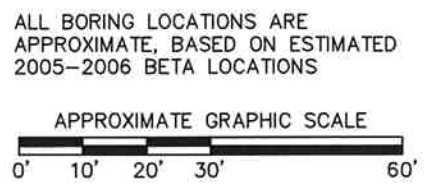
| Summary of Regulatory Comparison Criteria for Soil (mg/kg) |          |          |          |          |        |      |
|--|----------|----------|----------|----------|--------|------|
| Contaminant  | S-1/GW-2 | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC S-1 | TSCA |
| Names  |          |          |          |          |        |      |
| 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       |           | C5_25     |           | D5_25     |           | A4         |           | D1_3      |           | C2        |           |
|-----------------|-------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|
| SAMPLE DATE     | 06/20/06    |           | 06/20/06  |           | 06/20/06  |           | 06/20/06   |           | 06/20/06  |           | 06/20/06  |           |
|                 | Constituent | 0.50-3.00 | 3.00-7.00 | 5.00-8.00 | 0.50-3.00 | 3.00-7.00 | 7.00-10.00 | 0.50-3.00 | 3.00-6.00 | 6.00-8.00 | 0.50-3.00 | 3.00-6.00 |
|                 | Total PCBs  | 0.126     | 0.158     | 0.126     | 0.145     | 0.540     | 4.280      | 1.606     | 0.865     | 0.2       | NA        | 0.752     |



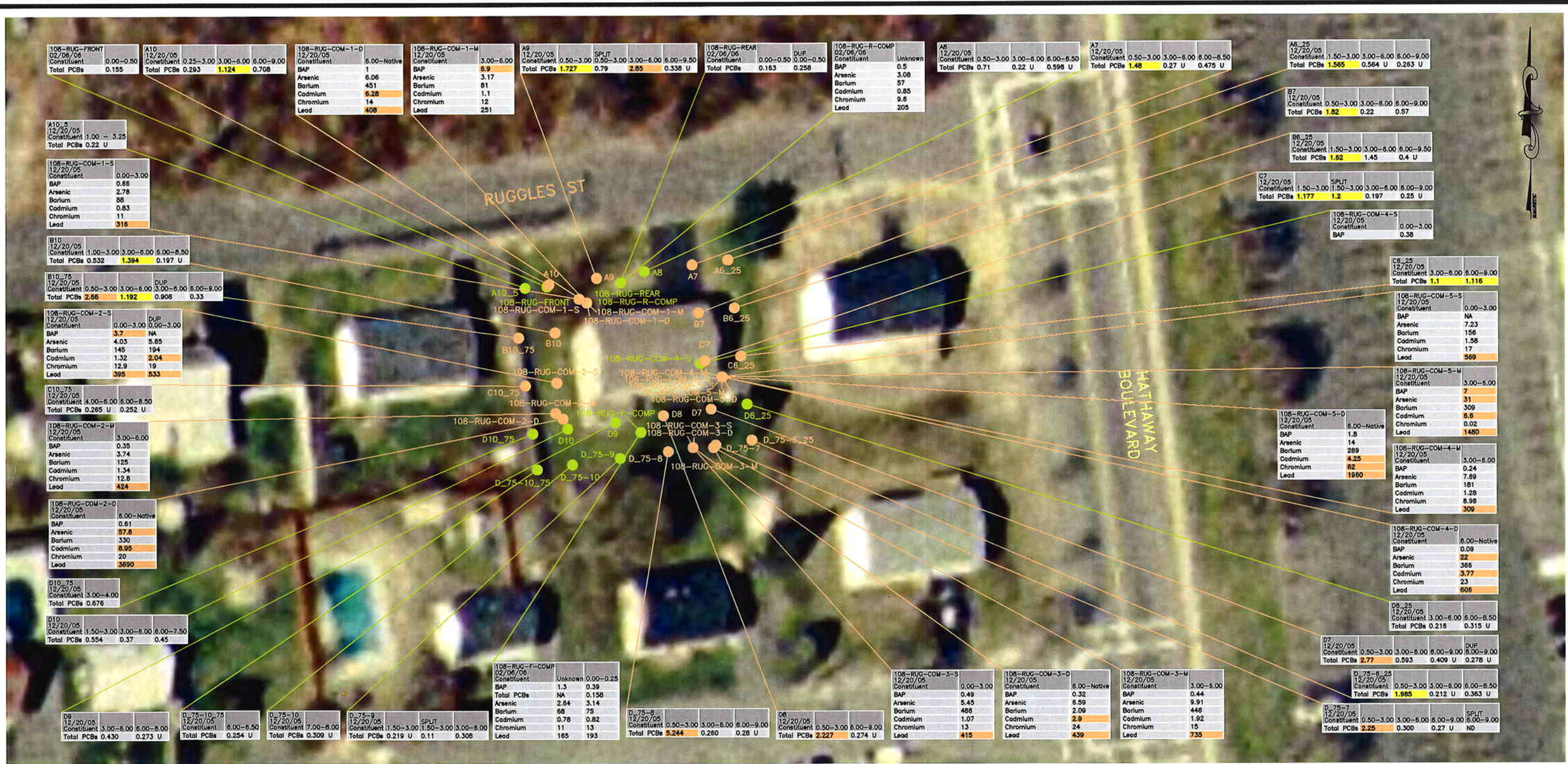
**98 RUGGLES STREET  
 NEW BEDFORD, MASSACHUSETTS**

**ANALYTICAL RESULTS  
 SUMMARY MAP**

**TRC** Wompat Mill  
 650 Suffolk Street  
 Lowell, MA 01854  
 (978) 970-5600

FIGURE 5

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



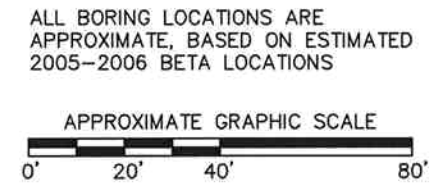
| Summary of Regulatory Comparison Criteria for Soil (mg/kg) |          |          |          |          |        |      |
|--|----------|----------|----------|----------|--------|------|
| Contaminant  | S-1/GW-2 | S-1/GW-3 | S-2/GW-2 | S-2/GW-3 | RC'S-1 | TSCA |
| Names  |          |          |          |          |        |      |
| 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.  
 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 | DB    | 12/20/05 | Constituent | 0.50-3.00 | 3.00-6.00 | 6.00-9.00 | SAMPLE DEPTH RANGE IN FEET |
|-----------------|-------|----------|-------------|-----------|-----------|-----------|----------------------------|
| Total PCBs      | 2.227 | 0.274    | U           |           |           |           |                            |



### 108 RUGGLES STREET NEW BEDFORD, MASSACHUSETTS

#### ANALYTICAL RESULTS SUMMARY MAP

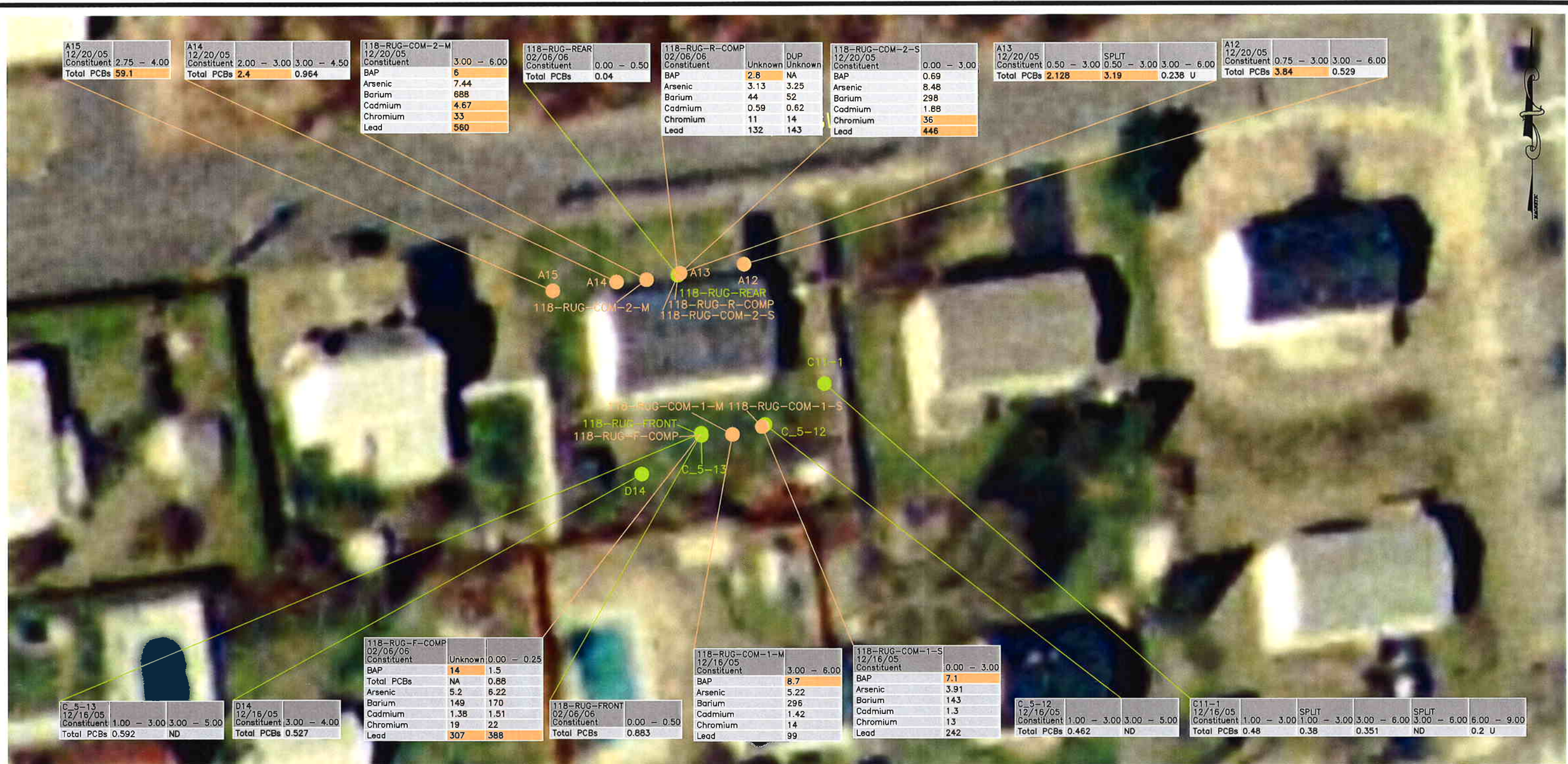
Wannancit Mills  
650 Suffolk Street  
Lowell, MA 01854  
(978) 970-5600

FIGURE  
**6**

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

● SOIL BORING ● SOIL BORING THAT HAS CONCENTRATION WITH EXCEEDANCE

FILE: Q:\GEOGSI\GSKR\Projects\NewBedford\Soil\_Results\_118 Ruggles SL.DWG

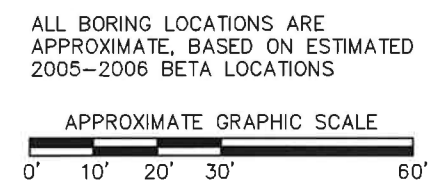


| Summary of Regulatory Comparison Criteria for Soil (mg/kg) |          |          |          |          |       |      |
|--|----------|----------|----------|----------|-------|------|
| Contaminant  | S-1/GV-2 | S-1/GV-3 | S-2/GV-2 | S-2/GV-3 | RCS-1 | TSCA |
| Names  |          |          |          |          |       |      |
| 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**


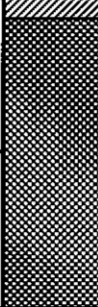
**TRC** Wannalancit Mills  
 650 Suffolk Street  
 Lowell, MA 01854  
 (978) 970-5600


DRAWN BY: PZ  
CHECKED BY: DP




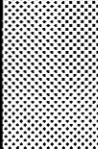

DATE:  
JUNE 2009

**FIGURE  
7**


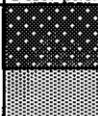
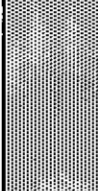
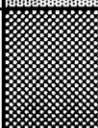

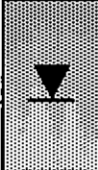
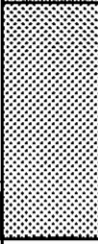
**APPENDIX A**  
**SOIL BORING LOGS**


| <br><b>Geoprobe Soil Log</b>  |               | Client/Project<br>City of New Bedford   | Project No.<br>115058   | Boring No. SB-185   | Sheet<br>1 of 1                     |   |  |
|--|---------------|---|---|---|-------------------------------------|---|--|
|  |               | Soil Gas Screening Number and AOC Location:<br>Northeast corner of 102 Greenwood garage (interior location)   |   | TRC Geologist<br>Charles Foster   |                                     |   |  |
| Geoprobe Contractor/Foreman<br>NEG/ Dan Regan & Bill Meadows   |               | Geoprobe Make/Model<br>Hand Tools   |   | Sampling Description<br>Continuous  |                                     |   |  |
| Sampler Description:<br>24" Large Bore Sampler   |               | Sampling Method<br>Continuous   |   | Coordinates<br>X=                  Y=   |                                     |   |  |
| Temporary piezometer or screen point: NA   |               | Auger Diameter (if used): NA  |   | Ref. El.:   |                                     |   |  |
| Depth<br>NA  |               | Sampler Diameter: 1.25"   |   | Riser Stick-up: NA  |                                     |   |  |
| Screen Length/Type: NA   |               | Water Table Depth: Unknown  |   | Surface Elevation:  |                                     |   |  |
| Riser Length/Type: NA  |               | Total Depth: 6 feet   |   | Date Start: 6/9/08  | Date Finish: 6/9/08                 |   |  |
| Depth  | Sample Number | PEN/REC   | Sample Description  | Strati-graphic Description  | Field Testing                       |   |  |
| 1  | S-1           | 24"/6"  | Cored approximately 3" of CONCRETE<br>6" Dark brown fine SAND, trace glass, wood debris, slag, coal, possibly ash and fine gravel |   | OS = bkg<br>HS = NA (due to volume) |   |  |
| 2  | S-2           | 24"/6"  | 6" Brown fine SAND, SILT and BRICKS, trace organic peat in tip, cloth wads also present   |   | OS = bkg<br>HS = NA (due to volume) |   |  |
| 3  | S-3           | 24"/10"   | 10" Organic PEAT, some silt, ash and fine sand, trace foam  |   | OS = bkg<br>HS = NA (due to volume) |   |  |
| 4  |               |   |   |   |                                     |   |  |
| 5  |               |   |   |   |                                     |   |  |
| 6  |               |   |   |   |                                     |   |  |
| 7  |               |   | End of Boring 6 ft  |   |                                     |   |  |
| 8  |               |   |   |   |                                     |   |  |
| 9  |               |   |   |   |                                     |   |  |
| 10   |               |   |   |   |                                     |   |  |
| 11   |               |   |   |   |                                     |   |  |
| 12   |               |   |   |   |                                     |   |  |
| 13   |               |   |   |   |                                     |   |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10       loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% |               | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30     v. stiff<br>>30        hard |   | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel     19-4.8 mm<br>c. gravel     75-19 mm<br>cobble       300-75 mm<br>boulder      >300 mm |                                     | <b>Notes/Sample details</b><br>1) SB-185- 2@ 0850 for PCBs<br>2) SB-185-4 @ 0855for PCBs,<br>3) SB-185-6 @ 0900 for PCBs, Metals & PAHs<br>4)<br>5) |  |

| <br><b>Geoprobe Soil Log</b>   |               | Client/Project<br>City of New Bedford   | Project No.<br>115058  | Boring No. SB-186   | Sheet<br>1 of 1                     |  |  |
|---|---------------|---|--|---|-------------------------------------|--|--|
|   |               | Soil Gas Screening Number and AOC Location:<br>Southeast corner of 102 Greenwood garage (interior location)   |  | TRC Geologist<br>Charles Foster   |                                     |  |  |
| Geoprobe Contractor/Foreman<br>NEG/ Dan Regan & Bill Meadows  |               | Geoprobe Make/Model<br>Hand Tools   |  | Sampling Description<br>Continuous  |                                     |  |  |
| Sampler Description:<br>24" Large Bore Sampler  |               | Sampling Method<br>Continuous   |  | Coordinates<br>X=                  Y=   |                                     |  |  |
| Temporary piezometer or screen point: NA  |               | Auger Diameter (if used): NA  |  | Ref. EL.:   |                                     |  |  |
| Depth<br>NA   |               | Sampler Diameter: 1.25"   |  | Riser Stick-up: NA  |                                     |  |  |
| Screen Length/Type: NA  |               | Water Table Depth: Unknown  |  | Surface Elevation:  |                                     |  |  |
| Riser Length/Type: NA   |               | Total Depth: 3.4 feet   |  | Date Start: 6/9/08  | Date Finish: 6/9/08                 |  |  |
| Depth   | Sample Number | PEN/REC   | Sample Description   | Stratigraphic Description   | Field Testing                       |  |  |
| 1   | S-1           | 24"/6"  | 6" Brown FILL, some fine sand, bricks, wood debris, coal, possible ash, blue glass                           | Stratigraphic Description   | OS = bkg<br>HS = NA (due to volume) |  |  |
| 2   | S-2           | 24"/10"   | 10" Brown to black fine SAND and FILL (coal, slag, glass, possible ash), cobble pushed at 3.4 feet (refusal) |   | OS = bkg<br>HS = NA (due to volume) |  |  |
| 3   |               |   | End of Boring - Refusal at 3.4 ft  |   |                                     |  |  |
| 4   |               |   |  |   |                                     |  |  |
| 5   |               |   |  |   |                                     |  |  |
| 6   |               |   |  |   |                                     |  |  |
| 7   |               |   |  |   |                                     |  |  |
| 8   |               |   |  |   |                                     |  |  |
| 9   |               |   |  |   |                                     |  |  |
| 10  |               |   |  |   |                                     |  |  |
| 11  |               |   |  |   |                                     |  |  |
| 12  |               |   |  |   |                                     |  |  |
| 13  |               |   |  |   |                                     |  |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10       loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and    35-50% |               | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30     v. stiff<br>>30        hard |  | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel    19-4.8 mm<br>c. gravel    75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm |                                     | <b>Notes/Sample details</b><br>1) SB-186-2@ 0915 for PCBs<br>2) SB-186-3.4 @ 0920 for PCBs<br>3)<br>4)<br>5) |  |

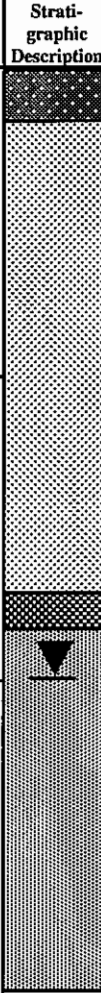
| <br><b>Geoprobe Soil Log</b>   |               | Client/Project<br>City of New Bedford  | Project No.<br>115058   | Boring No. SB-187   | Sheet<br>1 of 1                     |  |  |
|---|---------------|--|---|---|-------------------------------------|--|--|
|   |               | Soil Gas Screening Number and AOC Location:<br>Northeast corner 102 Greenwood basement (interior location)   |   | TRC Geologist<br>Charles Foster   |                                     |  |  |
| Geoprobe Contractor/Foreman<br>NEG/ Dan Regan & Bill Meadows  |               | Geoprobe Make/Model<br>Hand Tools  |   | Sampling Description<br>Continuous  |                                     |  |  |
| Sampler Description:<br>24" Large Bore Sampler  |               | Sampling Method<br>Continuous  |   | Coordinates<br>X=          Y=   |                                     |  |  |
| Temporary piezometer or screen point: NA  |               | Auger Diameter (if used): NA   |   | Ref. El.:   |                                     |  |  |
| Depth<br>NA   |               | Sampler Diameter: 1.25"  |   | Riser Stick-up: NA  |                                     |  |  |
| Screen Length/Type: NA  |               | Water Table Depth: NA  |   | Surface Elevation:  |                                     |  |  |
| Riser Length/Type: NA   |               | Total Depth: 6 feet  |   | Date Start: 6/9/08  | Date Finish: 6/9/08                 |  |  |
| Depth   | Sample Number | PEN/REC  | Sample Description  | Strati-graphic Description  | Field Testing                       |  |  |
| 1   | S-1           | 24"/3"   | Cored approximately 5" of CONCRETE<br>4" Concrete Dust  |   | OS = bkg<br>HS = NA (due to volume) |  |  |
| 2   |               |  | 3" Brown fine SAND, some fine gravel, trace coal and glass (not enough recovery to sample)                      |   |                                     |  |  |
| 3   | S-2           | 24"/4"   | 4" Brown fine SAND, some silt, trace brick and plastic  |   | OS = bkg<br>HS = NA (due to volume) |  |  |
| 4   |               |  |   |   |                                     |  |  |
| 5   | S-3           | 24"/16"  | 16" Dark brown to blackish fine SAND, some silt with fill (bricks, ash, coal, glass, stringy fiberglass shards) |    | OS = bkg<br>HS = NA (due to volume) |  |  |
| 6   |               |  |   |   |                                     |  |  |
| 7   |               |  | End of Boring 6 ft<br>(Borehole collapsed)  |   |                                     |  |  |
| 8   |               |  |   |   |                                     |  |  |
| 9   |               |  |   |   |                                     |  |  |
| 10  |               |  |   |   |                                     |  |  |
| 11  |               |  |   |   |                                     |  |  |
| 12  |               |  |   |   |                                     |  |  |
| 13  |               |  |   |   |                                     |  |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10       loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and    35-50% |               | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30    v. stiff<br>>30        hard |   | <b>Grain Size (USCS)</b><br>silt/clay <0.08 mm<br>f. sand 0.43-0.08 mm<br>m. sand 2.0-0.43 mm<br>c. sand 4.8-2.0 mm<br>f. gravel 19-4.8 mm<br>c. gravel 75-19 mm<br>cobble 300-75 mm<br>boulder >300 mm |                                     | <b>Notes/Sample details</b><br>1) SB-187- 4 @ 0955 for PCBs<br>2) SB-187-6 @ 1000 for PCBs, PAHs, & Metals<br>3)<br>4)<br>5) |  |




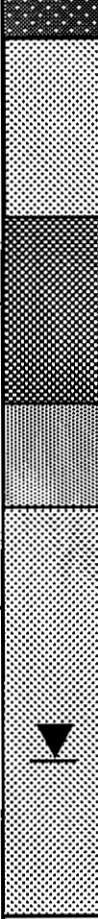
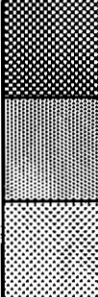

| <br><b>Geoprobe Soil Log</b>   | Client/Project<br>City of New Bedford  | Project No.<br>115058  | Boring No. SB-188   | Sheet<br>1 of 1   |                      |   |  |
|---|--|--|---|---|----------------------|---|--|
|   | Soil Gas Screening Number and AOC Location:<br>Front (northwest) corner of 102 Greenwood house |  | TRC Geologist<br>Jeff Saunders  |   |                      |   |  |
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows  |  | Geoprobe Make/Model<br>AMS 9100 Track Rig  | Sampling Description<br>Continuous Macro-cores  |   |                      |   |  |
| Sampler Description:<br>48" Macrocore   |  | Sampling Method<br>Continuous  | Coordinates<br>X=            Y=   |   |                      |   |  |
| Temporary piezometer or screen point: NA  |  | Auger Diameter (if used): NA   | Ref. EL:  |   |                      |   |  |
| Depth<br>NA   |  | Sampler Diameter: 2"   | Riser Stick-up: NA  |   |                      |   |  |
| Screen Length/Type: NA  |  | Water Table Depth: ~8 feet   | Surface Elevation:  |   |                      |   |  |
| Riser Length/Type: NA   |  | Total Depth: 12 feet   | Date Start: 6/10/08   | Date Finish: 6/10/08  |                      |   |  |
| Depth   | Sample Number  | PEN/REC  | Sample Description  | Strati-graphic Description  | Field Testing        |   |  |
| 1   | S-1  | 48"/18"  | 4" Dark brown organic SILT, trace, wood debris (mulch), glass and roots, no staining, no odor   |   | OS = bkg<br>HS = bkg |   |  |
| 2   |  |  | 14" Dark brown SILT and FINE SAND, trace glass, coal, ash (ash layer appears to be at ~4 feet bgs), slightly moist, no odor, no staining        |   |                      |   |  |
| 3   |  |  |   |   |                      |   |  |
| 4   |  |  |   |   |                      |   |  |
| 5   | S-2  | 48"/18"  | 12" Fine SAND & FILL material (ash, coal, slag, glass), loose, slightly moist, no odor, no staining   |    | OS = bkg<br>HS = bkg |   |  |
| 6   |  |  | 6" Organic SILT (peat material), slightly moist to moist (possible second ash layer below peat based on tip), no odor, no staining              |   |                      |   |  |
| 7   |  |  |   |   |                      |   |  |
| 8   | S-3  | 48"/42"  | 12' Dark brown SILT & FINE SAND, trace fine gravel & fine to medium sand, wet, no odor, no staining   |   | OS = bkg<br>HS = bkg |   |  |
| 9   |  |  | 30" Tan to orange-brown fine to medium SAND, little coarse sand & fine to coarse gravel, trace silt, wet, dense, mottling, no odor, no staining |   |                      |   |  |
| 10  |  |  |   |   |                      |   |  |
| 11  |  |  |   |   |                      |   |  |
| 12  |  |  |   |   |                      |   |  |
| 13  |  |  |   |   |                      |   |  |
|   |  |  | End of Boring 12 ft.  |   |                      |   |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10       loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%   and 35-50% |  | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30     v. stiff<br>>30       hard |   | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel    19-4.8 mm<br>c. gravel    75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm |                      | <b>Notes/Sample details</b><br>1) SB-188-1 @ 1040 for PCBs<br>2) SB-188-4.5 @ 1050 for PCBs, Metals & PAHs (split sample collected by R. Kranes - Goldman Environmental)<br>3) SB-188-9 @ 1055 for PCBs, Metals & PAHs<br>4) SB-188-12 @ 1100 for PCBs, Metals, & PAHs (HOLD)<br>5) |  |











|   |   |                       |                                |                 |
|---|---|-----------------------|--------------------------------|-----------------|
| <br><b>Geoprobe Soil Log</b> | Client/Project<br>City of New Bedford   | Project No.<br>115058 | Boring No. SB-189              | Sheet<br>1 of 1 |
|   | Soil Gas Screening Number and AOC Location:<br>Northwest corner of 102 Greenwood yard |                       | TRC Geologist<br>Jeff Saunders |                 |


|  |   |  |
|--|---|--|
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows | Geoprobe Make/Model<br>AMS 9100 Track Rig | Sampling Description<br>Continuous Macro-cores |
| Sampler Description:<br>48" Macrocore            | Sampling Method<br>Continuous             | Coordinates<br>X=                  Y=          |
| Temporary piezometer or screen point: NA         | Auger Diameter (if used): NA              | Ref. El.:                                      |
| Depth<br>NA                                      | Sampler Diameter: 2"                      | Riser Stick-up: NA                             |
| Screen Length/Type: NA                           | Water Table Depth: ~8 feet                | Surface Elevation:                             |
| Riser Length/Type: NA                            | Total Depth: 12 feet                      | Date Start: 6/10/08      Date Finish: 6/10/08  |


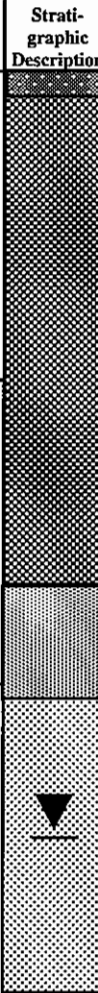
| Depth | Sample Number | PEN/REC | Sample Description   | Stratigraphic Description   | Field Testing        |  |
|-------|---------------|---------|--|---|----------------------|--|
| 1     | S-1           | 48"/36" | 6" Brown organic SILT, some fine sand, trace roots, no staining, no odor   |  | OS = bkg<br>HS = bkg |  |
| 2     |               |         | 24" Dark brown fine SAND, some silt, little medium to coarse sand, trace fine gravel, coal and glass, no staining, no odor |   |                      |  |
| 3     |               |         | 6" Tan fine to medium SAND, trace fine gravel, slightly moist, no odor, no staining  |   |                      |  |
| 4     |               |         |  |   |                      |  |
| 5     | S-2           | 48"/40" | 30" Tan fine to medium SAND, trace fine gravel, slightly moist to moist, no odor, no staining                              |   |                      |  |
| 6     |               |         | 5" Dark brown fine SAND, trace rock fragments, coal and possibly ash, moist, no odor, no staining                          |   |                      |  |
| 7     |               |         |  |   |                      |  |
| 8     |               |         | 5" Brown SILT & FINE SAND, moist to wet, no staining, no odor  |   |                      |  |
| 9     | S-3           | 48"/30" | 30" Tan-brown SILT & FINE SAND, trace fine to coarse gravel & medium to coarse sand, wet, no odor, no staining             | OS = bkg<br>HS = bkg  |                      |  |
| 10    |               |         |  |   |                      |  |
| 11    |               |         |  |   |                      |  |
| 12    |               |         | End of Boring 12 ft.   |   |                      |  |
| 13    |               |         |  |   |                      |  |


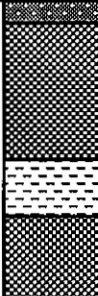
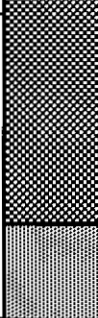
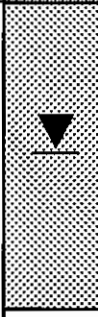
|   |   |   |   |
|---|---|---|---|
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4          v. loose<br>4-10        loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2          v. soft<br>2-4         soft<br>4-8         m. stiff<br>8-15        stiff<br>15-30      v. stiff<br>>30         hard | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel    19-4.8 mm<br>c. gravel    75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm | <b>Notes/Sample details</b><br>1) SB-189-1 @ 1000 for PCBs<br>2) SB-189-3.5 @ 1005 for PCBs, Metals & PAHs<br>3) SB-189-7 @ 1010 for PCBs, Metals & PAHs<br>4) SB-189-11 @ 1020 for PCBs, Metals, & PAHs (HOLD)<br>5) |
|---|---|---|---|


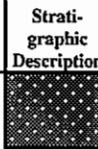
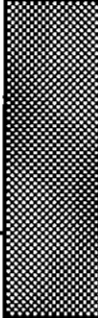
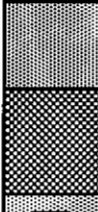
| <br><b>Geoprobe Soil Log</b>   |               | Client/Project<br>City of New Bedford  | Project No.<br>115058  | Boring No. SB-190   | Sheet<br>1 of 1                             |   |  |
|---|---------------|--|--|---|---|---|--|
|   |               | Soil Gas Screening Number and AOC Location:<br>West side of 102 Greenwood (west of gas service)  |  | TRC Geologist<br>Charles Foster   |   |   |  |
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows  |               | Geoprobe Make/Model<br>540M Dolly Rig  |  | Sampling Description<br>Continuous Macro-cores  |   |   |  |
| Sampler Description:<br>48" Macrocore   |               |  | Sampling Method<br>Continuous  |   | Coordinates<br>X=                  Y=       |   |  |
| Temporary piezometer or screen point: NA  |               |  | Auger Diameter (if used): NA   |   | Ref. El.:                                   |   |  |
| Depth<br>NA   |               |  | Sampler Diameter: 2"   |   | Riser Stick-up: NA                          |   |  |
| Screen Length/Type: NA  |               |  | Water Table Depth: ~10 feet  |   | Surface Elevation:                          |   |  |
| Riser Length/Type: NA   |               |  | Total Depth: 12 feet   |   | Date Start: 6/9/08      Date Finish: 6/9/08 |   |  |
| Depth   | Sample Number | PEN/REC  | Sample Description   | Strati-graphic Description  | Field Testing                               |   |  |
| 1   | S-1           | 48"/30"  | 4" Organic TOP SOIL and roots, trace grass<br>18" Tan fine to coarse SAND, some fine gravel            |    | OS = 15.4 ppm<br>HS = 60.1 ppm              |   |  |
| 2   |               |  | 8" Black to brown FILL (glass, brick, ash, metal (spark plug), and 4" TAR with asphalt odor )          |   |   |   |  |
| 3   |               |  |  |   |   |   |  |
| 4   |               |  |  |   |   |   |  |
| 5   | S-2           | 48"/30"  | 10" Black to brown FILL (glass, brick, ash, slate, metal, tar and brown to orange fine to coarse sand) |    | OS = bkg<br>HS = bkg                        |   |  |
| 6   |               |  | 10" Organic PEAT and SILT, some decomposed organic matter  |   |   |   |  |
| 7   |               |  | 10" Tan fine to medium SAND, some fine gravel, trace silt  |   |   |   |  |
| 8   | S-3           | 48"/32"  | 32" Tan fine to coarse SAND and fine GRAVEL, trace silt, wet at 10 feet                                |   | OS = bkg<br>HS = bkg                        |   |  |
| 9   |               |  |  |   |   |   |  |
| 10  |               |  |  |   |   |   |  |
| 11  |               |  |  |   |   |   |  |
| 12  |               |  |  |   |   |   |  |
| 13  |               |  | End of Boring 12 ft.   |   |   |   |  |
| <b>Granular Soils</b><br>Blows/ft      Density<br>0-4            v. loose<br>4-10          loose<br>10-30        m. dense<br>30-50        dense<br>>50          v. dense<br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% |               | <b>Cohesive Soils</b><br>Blows/ft      Density<br>>2            v. soft<br>2-4            soft<br>4-8            m. stiff<br>8-15          stiff<br>15-30        v. stiff<br>>30            hard |  | <b>Grain Size (USCS)</b><br>silt/clay      <0.08 mm<br>f. sand        0.43-0.08 mm<br>m. sand       2.0-0.43 mm<br>c. sand        4.8-2.0 mm<br>f. gravel      19-4.8 mm<br>c. gravel      75-19 mm<br>cobble        300-75 mm<br>boulder       >300 mm |   | <b>Notes/Sample details</b><br>1) SB-190-1 @ 1050 for PCBs, Metals, & PAHs<br>2) SB-190-4 @ 1115 for PCBs, Metals, PAHs, VPH, EPH & GC Fingerprint<br>3) SB-190-D @ 0915 (Duplicate of SB-190-4 for PCBs, Metals & PAHs)<br>4) SB-190-6 @ 1130 for PCBs<br>5) SB-190-8 @ 1135 for PCBs, Metals, & PAHs<br>6) SB-190-11 @ 1145 for PCBs, PAHs, & Metals (HOLD) |  |

| <br><b>Geoprobe Soil Log</b>   |               | Client/Project<br>City of New Bedford   | Project No.<br>115058  | Boring No. SB-191  | Sheet<br>1 of 1      |   |  |
|---|---------------|---|--|--|----------------------|---|--|
|   |               | Soil Gas Screening Number and AOC Location:<br>Southwest corner of 102 Greenwood (adjacent to patio)  |  | TRC Geologist<br>Charles Foster  |                      |   |  |
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows  |               | Geoprobe Make/Model<br>540M Dolly Rig   |  | Sampling Description<br>Continuous Macro-cores   |                      |   |  |
| Sampler Description:<br>48" Macrocore   |               | Sampling Method<br>Continuous   |  | Coordinates<br>X=          Y=  |                      |   |  |
| Temporary piezometer or screen point: NA  |               | Auger Diameter (if used): NA  |  | Ref. El.:  |                      |   |  |
| Depth<br>NA   |               | Sampler Diameter: 2"  |  | Riser Stick-up: NA   |                      |   |  |
| Screen Length/Type: NA  |               | Water Table Depth: ~10 feet   |  | Surface Elevation:   |                      |   |  |
| Riser Length/Type: NA   |               | Total Depth: 12 feet  |  | Date Start: 6/9/08   | Date Finish: 6/9/08  |   |  |
| Depth   | Sample Number | PEN/REC   | Sample Description   | Strati-graphic Description   | Field Testing        |   |  |
| 1   | S-1           | 48"/32"   | 6" Organic TOP SOIL & roots, trace grass<br>4" Orange Brick  |    | OS = bkg<br>HS = bkg |   |  |
| 2   |               |   | 4" Dark black to shiny fine to coarse GRAVEL and fine SAND, trace coal                               |    |                      |   |  |
| 3   |               |   | 14" Tan fine to coarse SAND, some fine gravel  |    |                      |   |  |
| 4   |               |   | 4" Tan to brown ASH and glass, trace slag  |   |                      |   |  |
| 5   | S-2           | 48"/30"   | 8" Dark brown FILL (ash, glass and slag)   |    | OS = bkg<br>HS = bkg |   |  |
| 6   |               |   | 12" Organic PEAT, some silt, trace mottling (tan)  |    |                      |   |  |
| 7   |               |   | 10" Tan fine to coarse SAND, some fine gravel, trace silt (orange oxidation-reduction hue)           |    |                      |   |  |
| 8   |               |   |  |  |                      |   |  |
| 9   | S-3           | 48"/38"   | 38" Tan fine to coarse SAND, some fine gravel (multi-colored gravel & sand) and silt, wet at 10 feet |    | OS = bkg<br>HS = bkg |   |  |
| 10  |               |   |  |  |                      |   |  |
| 11  |               |   |  |  |                      |   |  |
| 12  |               |   | End of Boring 12 ft.   |    |                      |   |  |
| 13  |               |   |  |  |                      |   |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4          v. loose<br>4-10        loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% |               | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2          v. soft<br>2-4         soft<br>4-8         m. stiff<br>8-15        stiff<br>15-30      v. stiff<br>>30         hard |  | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand     0.43-0.08 mm<br>m. sand    2.0-0.43 mm<br>c. sand     4.8-2.0 mm<br>f. gravel    19-4.8 mm<br>c. gravel    75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm |                      | <b>Notes/Sample details</b><br>1) SB-191-1 @ 1150 for PCBs<br>2) SB-191-4 @ 1155 for PAH, PCBs, & Metals<br>3) SB-191-8 @ 1200 for PCBs, Metals & PAHs<br>4) SB-191-11 @ 1130 for PCBs, Metals, & PAHs (HOLD)<br>5) |  |


| <br><b>Geoprobe Soil Log</b>   |               | Client/Project<br>City of New Bedford   | Project No.<br>115058   | Boring No. SB-192   | Sheet<br>1 of 1      |  |  |
|---|---------------|---|---|---|----------------------|--|--|
|   |               | Soil Gas Screening Number and AOC Location:<br>Southwest corner of 102 Greenwood yard (west of pool)  |   | TRC Geologist<br>Charles Foster   |                      |  |  |
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows  |               | Geoprobe Make/Model<br>540M Dolly Rig   |   | Sampling Description<br>Continuous Macro-cores  |                      |  |  |
| Sampler Description:<br>48" Macrocore   |               | Sampling Method<br>Continuous   |   | Coordinates<br>X=      Y=   |                      |  |  |
| Temporary piezometer or screen point: NA  |               | Auger Diameter (if used): NA  |   | Ref. El.:   |                      |  |  |
| Depth<br>NA   |               | Sampler Diameter: 2"  |   | Riser Stick-up: NA  |                      |  |  |
| Screen Length/Type: NA  |               | Water Table Depth: ~10 feet   |   | Surface Elevation:  |                      |  |  |
| Riser Length/Type: NA   |               | Total Depth: 12 feet  |   | Date Start: 6/9/08  | Date Finish: 6/9/08  |  |  |
| Depth   | Sample Number | PEN/REC   | Sample Description  | Strati-graphic Description  | Field Testing        |  |  |
| 1   | S-1           | 48"/30"   | 4" Organic TOP SOIL and grass, trace fine gravel                              |   | OS = bkg<br>HS = bkg |  |  |
| 2   |               |   | 18" Tan to brown fine to medium SAND, some fine gravel                        |   |                      |  |  |
| 3   |               |   | 8" Red brick FILL, some fine to medium sand, silt and fine gravel, trace coal |   |                      |  |  |
| 4   | S-2           | 48"/28"   | 16" Tan to brown fine to medium SAND, some silt and fine gravel               |   |                      |  |  |
| 5   |               |   | 6" Dark brown organic SILT/PEAT   |   | OS = bkg<br>HS = bkg |  |  |
| 6   |               |   | 6" Tan to brown fine to coarse SAND, some silt, trace fine gravel             |   |                      |  |  |
| 7   |               |   |   |   |                      |  |  |
| 8   | S-3           | 48"/34"   | 34" Tan fine to coarse SAND, some silt and fine gravel, wet at 10 feet        |   |                      |  |  |
| 9   |               |   |   |   | OS = bkg<br>HS = bkg |  |  |
| 10  |               |   |   |   |                      |  |  |
| 11  |               |   |   |   |                      |  |  |
| 12  |               |   | End of Boring 12 ft.  |   |                      |  |  |
| 13  |               |   |   |   |                      |  |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10        loose<br>10-30       m. dense<br>30-50       dense<br>>50        v. dense<br>Proportions<br>trace 0-10%    some 20-35%<br>little 10-20%    and    35-50% |               | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15       stiff<br>15-30      v. stiff<br>>30        hard |   | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel     19-4.8 mm<br>c. gravel     75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm |                      | <b>Notes/Sample details</b><br>1) SB-192-1 @ 1330 for PCBs<br>2) SB-192-4 @ 1335 for PAH, PCBs, & Metals<br>3) SB-192-9 @ 1345 for PCBs, Metals & PAHs<br>4) SB-192-11 @ 135 0 for PCBs, Metals, & PAHs (HOLD)<br>5) |  |

| <br><b>Geoprobe Soil Log</b>  |               | Client/Project<br>City of New Bedford   | Project No.<br>115058   | Boring No. SB-193<br>Well No. NA   | Sheet<br>1 of 1      |  |  |
|--|---------------|---|---|--|----------------------|--|--|
|  |               | Soil Gas Screening Number and AOC Location:<br>Southeast corner of 102 Greenwood yard (east of pool)  |   | TRC Geologist<br>Charles Foster  |                      |  |  |
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows   |               | Geoprobe Make/Model<br>540M Dolly Rig   |   | Sampling Description<br>Continuous Macro-cores   |                      |  |  |
| Sampler Description:<br>48" Macrocore  |               | Sampling Method<br>Continuous   |   | Coordinates<br>X=            Y=  |                      |  |  |
| Temporary piezometer or screen point: NA   |               | Auger Diameter (if used): NA  |   | Ref. El.:  |                      |  |  |
| Depth<br>NA  |               | Sampler Diameter: 2"  |   | Riser Stick-up: NA   |                      |  |  |
| Screen Length/Type: NA   |               | Water Table Depth: ~10 feet   |   | Surface Elevation:   |                      |  |  |
| Riser Length/Type: NA  |               | Total Depth: 12 feet  |   | Date Start: 6/9/08   | Date Finish: 6/9/08  |  |  |
| Depth  | Sample Number | PEN/REC   | Sample Description  | Strati-graphic Description   | Field Testing        |  |  |
| 1  | S-1           | 48"/28"   | 2" Organic TOP SOIL and roots<br>18" Dark brown to grayish fine to coarse SAND and coal, trace glass (blue and clear) |   | OS = bkg<br>HS = bkg |  |  |
| 2  |               |   | 8" Brown to orange to black FILL with glass, slag, ash and rusty metallic pieces                                      |  |                      |  |  |
| 3  |               |   |   |  |                      |  |  |
| 4  |               |   |   |  |                      |  |  |
| 5  | S-2           | 48"/36"   | 24" FILL with melted glass, ash, black plastic, (possible capacitor waste) coal, ash, rubber, tar                     |  | OS = bkg<br>HS = bkg |  |  |
| 6  |               |   | 2" Wood debris  |  |                      |  |  |
| 7  |               |   | 10" Organic PEAT and SILT   |  |                      |  |  |
| 8  |               |   |   |  |                      |  |  |
| 9  | S-3           | 48"/36"   | 2" Mixed PEAT and gray SAND<br>34" Tan to gray fine to coarse SAND, some fine gravel, trace silt, wet at 10 feet      | OS = bkg<br>HS = bkg   |                      |  |  |
| 10   |               |   |   |  |                      |  |  |
| 11   |               |   |   |  |                      |  |  |
| 12   |               |   |   |  |                      |  |  |
| 13   |               |   | End of Boring 12 ft.  |  |                      |  |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10       loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% |               | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30     v. stiff<br>>30        hard |   | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand     0.43-0.08 mm<br>m. sand    2.0-0.43 mm<br>c. sand     4.8-2.0 mm<br>f. gravel    19-4.8 mm<br>c. gravel    75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm |                      | <b>Notes/Sample details</b><br>1) SB-193-1 @ 1305 for PCBs<br>2) SB-193-4 @ 1310 for PAH, PCBs, & Metals (plus MS/MSD)<br>3) SB-193-10 @ 1320 for PCBs, Metals & PAHs<br>4) SB-193-12 @ 1325 for PCBs, Metals, & PAHs (HOLD)<br>5) |  |


| <br><b>Geoprobe Soil Log</b>  | <b>Client/Project</b><br>City of New Bedford   |         | <b>Project No.</b><br>115058   |  | <b>Boring No.</b> SB-194<br><b>Well No.</b> NA  |   | <b>Sheet</b><br>1 of 1  |  |  |
|--|--|---------|--|--|---|---|---|--|--|
|  | <b>Soil Gas Screening Number and AOC Location:</b><br>Southeast corner of 102 Greenwood yard (northeast of pool) |         |  |  |   | <b>TRC Geologist</b><br>Charlie Foster                |   |  |  |
|  | <b>Geoprobe Contractor/Foreman</b><br>NEG/ Bill Meadows  |         |  | <b>Geoprobe Make/Model</b><br>540M Dolly Rig |   | <b>Sampling Description</b><br>Continuous Macro-cores |   |  |  |
| <b>Sampler Description:</b><br>48" Macrocore   |  |         |  | <b>Sampling Method</b><br>Continuous         |   | <b>Coordinates</b><br>X=            Y=                |   |  |  |
| <b>Temporary piezometer or screen point:</b> NA  |  |         |  | <b>Auger Diameter (if used):</b> NA          |   | <b>Ref. El.:</b>                                      |   |  |  |
| <b>Depth</b>   |  |         | <b>Sampler Diameter:</b> 2"  |  | <b>Riser Stick-up:</b> NA   |   |   |  |  |
| <b>Screen Length/Type:</b> NA  |  |         | <b>Water Table Depth:</b> ~10 feet   |  | <b>Surface Elevation:</b>   |   |   |  |  |
| <b>Riser Length/Type:</b> NA   |  |         | <b>Total Depth:</b> 12 feet  |  | <b>Date Start:</b> 6/9/08   |   | <b>Date Finish:</b> 6/9/08  |  |  |
| Depth  | Sample Number  | PEN/REC | Sample Description   |  | Stratigraphic Description   | Field Testing   |   |  |  |
| 1  | S-1  | 48"/32" | 2" Organic TOP SOIL, roots, grass and silt   |  |   | OS = bkg<br>HS = bkg                                  |   |  |  |
|  |  |         | 14" Brown SILT, some fine sand and fill (glass, ash and slag)  |  |   |   |   |  |  |
| 2  |  |         | 6" Brick and tan CLAY, some silt   |  |   |   |   |  |  |
| 3  |  |         | 10" Black to whitish ASH and fine to coarse sand, some brick, glass, slag and coal fragments   |  |   |   |   |  |  |
| 4  | S-2  | 48"/26" | 18" Alternating 4" layers of gray ash, black tar, red slate/shale, fecal odor, wet at 7 feet (perched water table)   |  |    | OS = bkg<br>HS = bkg                                  |   |  |  |
| 5  |  |         | 8" Organic PEAT  |  |   |   |   |  |  |
| 6  |  |         |  |  |   |   |   |  |  |
| 7  |  |         |  |  |   |   |   |  |  |
| 8  | S-3  | 48"/32" | 32" Tan fine to coarse SAND, some fine gravel, wet at 10 feet  |  |   | OS = bkg<br>HS = bkg                                  |   |  |  |
| 9  |  |         |  |  |   |   |   |  |  |
| 10   |  |         |  |  |   |   |   |  |  |
| 11   |  |         |  |  |   |   |   |  |  |
| 12   |  |         | End of Boring 12 ft.   |  |   |   |   |  |  |
| 13   |  |         |  |  |   |   |   |  |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10        loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and    35-50% |  |         | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30    v. stiff<br>>30      hard |  | <b>Grain Size (USCS)</b><br>silt/clay <0.08 mm<br>f. sand 0.43-0.08 mm<br>m. sand 2.0-0.43 mm<br>c. sand 4.8-2.0 mm<br>f. gravel 19-4.8 mm<br>c. gravel 75-19 mm<br>cobble 300-75 mm<br>boulder >300 mm |   | <b>Notes/Sample details</b><br>1) SB-194-1 @ 1405 for PAHs, PCBs, & Metals<br>2) SB-194-4 @ 1415 for PAH, PCBs, & Metals<br>3) SB-194-9 @ 1420 for PCBs, Metals & PAHs<br>4) SB-194-11 @ 1425 for PCBs, Metals, & PAHs (HOLD)<br>5) |  |  |

| <br><b>Geoprobe Soil Log</b>  | Client/Project<br>City of New Bedford  | Project No.<br>115058   | Boring No. SB-195  | Sheet<br>1 of 1   |                      |   |  |
|--|--|---|--|---|----------------------|---|--|
|  | Soil Gas Screening Number and AOC Location:<br>East side of 102 Greenwood yard (east of sidewalk/shrubs) |   | TRC Geologist<br>Jeff Saunders   |   |                      |   |  |
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows   |  | Geoprobe Make/Model<br>AMS 9100 Track Rig   | Sampling Description<br>Continuous Macro-cores   |   |                      |   |  |
| Sampler Description:<br>48" Macrocore  |  | Sampling Method<br>Continuous   | Coordinates<br>X=            Y=  |   |                      |   |  |
| Temporary piezometer or screen point: NA   |  | Auger Diameter (if used): NA  | Ref. EL:   |   |                      |   |  |
| Depth<br>NA  |  | Sampler Diameter: 2"  | Riser Stick-up: NA   |   |                      |   |  |
| Screen Length/Type: NA   |  | Water Table Depth: ~8-9feet   | Surface Elevation:   |   |                      |   |  |
| Riser Length/Type: NA  |  | Total Depth: 12 feet  | Date Start: 6/10/08  | Date Finish: 6/10/08  |                      |   |  |
| Depth  | Sample Number  | PEN/REC   | Sample Description   | Strati-graphic Description  | Field Testing        |   |  |
| 1  | S-1  | 48"/24"   | 6" Dark brown organic SILT, some fine sand, trace glass, ash & coal  |   | OS = bkg<br>HS = bkg |   |  |
| 2  |  |   | 18" Brown fine SAND and FILL material (ash, coal, glass and slag), more coal in bottom 8", very slightly moist, no odor, no staining |   |                      |   |  |
| 3  |  |   |  |   |                      |   |  |
| 4  |  |   |  |   |                      |   |  |
| 5  | S-2  | 48"/14"   | 4" Orange-brown fine SAND and FILL material (glass, coal and slag), moist, no odor, no staining                                      |    | OS = bkg<br>HS = bkg |   |  |
| 6  |  |   | 4" Organic SILT (peat), trace fine gravel, moist, no odor, no staining   |   |                      |   |  |
| 7  |  |   | 5" ASH material, trace fine gravel, moist, no odor, no staining  |   |                      |   |  |
| 8  |  |   | 1" Organic SILT (peat), moist, no odor, no staining  |   |                      |   |  |
| 9  | S-3  | 48"/40"   | 6" Dark brown organic SILT (peat)  |   | OS = bkg<br>HS = bkg |   |  |
| 10   |  |   | 26" Grey-brown SILT, some fine sand, dense, wet, no odor, no staining  |   |                      |   |  |
| 11   |  |   | 8" Orange-brown fine to medium SAND, some coarse sand, trace fine gravel, wet, no odor, no staining                                  |   |                      |   |  |
| 12   |  |   |  |   |                      |   |  |
| 13   |  |   | End of Boring 12 ft.   |   |                      |   |  |
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10       loose<br>10-30      m. dense<br>30-50      dense<br>>50        v. dense<br><b>Proportions</b><br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% |  | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15      stiff<br>15-30     v. stiff<br>>30        hard |  | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel     19-4.8 mm<br>c. gravel     75-19 mm<br>cobble       300-75 mm<br>boulder      >300 mm |                      | <b>Notes/Sample details</b><br>1) SB-195-1 @ 0855 for PCBs<br>2) SB-195-7.5 @ 0910 for PAH, PCBs, & Metals<br>3) SB-195-9 @ 0915 for PCBs, Metals & PAHs<br>4) SB-195-11 @ 0920 for PCBs, Metals, & PAHs (HOLD)<br>5) |  |



|   |  |                       |                   |                                |
|---|--|-----------------------|-------------------|--------------------------------|
| <br><b>Geoprobe Soil Log</b> | Client/Project<br>City of New Bedford  | Project No.<br>115058 | Boring No. SB-196 | Sheet<br>1 of 1                |
|   | Soil Gas Screening Number and AOC Location:<br>East side of 102 Greenwood (northeast corner of yard) |                       | Well No. NA       | TRC Geologist<br>Jeff Saunders |

|  |   |  |
|--|---|--|
| Geoprobe Contractor/Foreman<br>NEG/ Bill Meadows | Geoprobe Make/Model<br>AMS 9100 Track Rig | Sampling Description<br>Continuous Macro-cores |
| Sampler Description:<br>48" Macrocore            | Sampling Method<br>Continuous             | Coordinates<br>X=            Y=                |
| Temporary piezometer or screen point: NA         | Auger Diameter (if used): NA              | Ref. El.:                                      |
| Depth<br>NA                                      | Sampler Diameter: 2"                      | Riser Stick-up: NA                             |
| Screen Length/Type: NA                           | Water Table Depth: ~8 feet                | Surface Elevation:                             |
| Riser Length/Type: NA                            | Total Depth: 12 feet                      | Date Start: 6/10/08    Date Finish: 6/10/08    |

| Depth | Sample Number | PEN/REC | Sample Description  | Strati-graphic Description  | Field Testing        |
|-------|---------------|---------|---|---|----------------------|
| 1     | S-1           | 48"/36" | 26" Light brown fine SAND, some silt and medium to coarse sand, trace roots (upper 4"), brick and fine gravel, slightly moist, no odor, no staining |  | OS = bkg<br>HS = bkg |
| 2     |               |         |   |   |                      |
| 3     |               |         | 10" Light brown to tan fine SAND, little medium to coarse sand, trace fine gravel, slightly moist, no odor, no staining                             |   |                      |
| 4     |               |         |   |   |                      |
| 5     | S-2           | 48"/40" | 40" Tan fine to medium SAND, trace rock fragments, slightly moist to wet at 8 feet, no odor, no staining  |   | OS = bkg<br>HS = bkg |
| 6     |               |         |   |   |                      |
| 7     |               |         |   |   |                      |
| 8     |               |         |   |   |                      |
| 9     | S-3           | 48"/24" | 24" Tan to gray to brown fine to medium SAND, little silt and fine to medium gravel, wet, no odor, no staining                                      |   | OS = bkg<br>HS = bkg |
| 10    |               |         |   |   |                      |
| 11    |               |         |   |   |                      |
| 12    |               |         | End of Boring 12 ft.  |   |                      |
| 13    |               |         |   |   |                      |

|  |  |   |  |
|--|--|---|--|
| <b>Granular Soils</b><br>Blows/ft    Density<br>0-4        v. loose<br>4-10        loose<br>10-30       m. dense<br>30-50       dense<br>>50        v. dense<br>Proportions<br>trace 0-10%    some 20-35%<br>little 10-20%    and 35-50% | <b>Cohesive Soils</b><br>Blows/ft    Density<br>>2        v. soft<br>2-4        soft<br>4-8        m. stiff<br>8-15       stiff<br>15-30     v. stiff<br>>30        hard | <b>Grain Size (USCS)</b><br>silt/clay    <0.08 mm<br>f. sand      0.43-0.08 mm<br>m. sand     2.0-0.43 mm<br>c. sand      4.8-2.0 mm<br>f. gravel     19-4.8 mm<br>c. gravel     75-19 mm<br>cobble      300-75 mm<br>boulder     >300 mm | <b>Notes/Sample details</b><br>1) SB-196-1 @ 0925 for PCBs<br>2) SB-196-3.5 @ 0930 for PAH, PCBs, & Metals<br>3) SB-195-8 @ 0940 for PCBs, Metals & PAHs (HOLD)<br>4) SB-195-11 @ 0945 for PCBs, Metals, & PAHs (HOLD)<br>5) |
|--|--|---|--|

**APPENDIX B**

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



21 Griffin Road North  
Windsor, CT 06095

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

645247

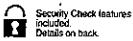
CHECK DATE  
09/16/09

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

AMOUNT  
**\$800.00**

TO Commonwealth of Massachusetts  
*Modford RAM Plan*  
*RTN 4-15685*  
*City of New Bedford*

By *WHD* MP  
VOID AFTER 90 DAYS AUTHORIZED SIGNATURE



⑆645247⑆ ⑆031100225⑆ 2079950091538⑆



21 Griffin Road North  
Windsor, CT 06095

EMILY BUSINESS FORMS 800.392.6018 VISION

645247

| Invoice Number | Invoice Date | Description                     | Amount   |
|----------------|--------------|---------------------------------|----------|
| RAM PLAN FEE   | 09/16/09     | Vendor # 030812<br>RAM Plan Fee | \$800.00 |

**APPENDIX C**

**MUNICIPAL NOTIFICATION LETTERS**



Wannalancit Mills  
650 Suffolk Street  
Lowell, MA 01854

978.970.5600 PHONE  
978.453.1995 FAX

www.TRCSolutions.com

September 17, 2009

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 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 Modified Release Abatement Measure (RAM) at the Greenwood Street and Ruggles Street Portion of the New Bedford High School Site located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Street in New Bedford, Massachusetts.

The Modified RAM that will be performed at this location replaces the previously submitted RAM Plan (dated September 9, 2009) and involves disconnection of residences underground utilities, demolition of residences, on-site crushing of the building foundation and slab and use as fill for foundation hole, backfilling of the foundation hole with suitable off-site material. Excavation and disposal activities are anticipated to begin in late September, 2009.

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 David Fredette with the Department of Environmental Stewardship, at (508) 961-4576.

Sincerely,  
TRC Environmental Corporation

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

Cc: David Fredette, New Bedford Department of Environmental Stewardship



Wannalancit Mills  
650 Suffolk Street  
Lowell, MA 01854

978.970.5600 PHONE  
978.453.1995 FAX

www.TRCSolutions.com

September 17, 2009

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 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 Modified Release Abatement Measure (RAM) at the Greenwood Street and Ruggles Street Portion of the New Bedford High School Site located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Street in New Bedford, Massachusetts.

The Modified RAM that will be performed at this location replaces the previously submitted RAM Plan (dated September 9, 2009) and involves disconnection of residences underground utilities, demolition of residences, on-site crushing of the building foundation and slab and use as fill for foundation hole, backfilling of the foundation hole with suitable off-site material. Excavation and disposal activities are anticipated to begin in late September, 2009.

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 David Fredette with the Department of Environmental Stewardship, at (508) 961-4576.

Sincerely,  
TRC Environmental Corporation

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

Cc: David Fredette, New Bedford Department of Environmental Stewardship

**APPENDIX D**

**SOIL MANAGEMENT PLAN**

**DRAFT FINAL  
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

**September 2009**



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## 1.0 INTRODUCTION

The City of New Bedford Massachusetts (City) intends to perform construction activities 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 installation of a perimeter fence, excavation immediate replacement of soils to allow for the disconnection of underground dwelling utilities, demolition of the dwelling structures and disposal of the non-foundation dwelling debris, demolition of the concrete foundations to a location at or below grade and breaking the basement slabs to enable drainage, and backfilling of the basement space and/or covering the basement slab with crushed concrete foundation material and suitable off-site soil material and establishment of grass cover as described in the Modified Release Abatement Measure (RAM) Plan. **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 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 Modified RAM Plan in which this revised Soil Management Plan (revised SMP) document is contained 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 modified RAM Plan.

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 ground water 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 Massachusetts Department of Environmental Protection (MassDEP) policies and guidance.

Other construction activities will be performed that require disposal of materials other than soils. The structures will then be demolished by the City's Department of Public Infrastructure (DPI), and the demolition materials will be placed directly into roll off containers. The demolition waste will then be disposed of at an approved construction and demolition waste facility. Upon completion of the demolition of the structures, the concrete foundations walls will be crushed on-site to a location at or below grade. Utilizing an excavator with a concrete "nibbler" attachment, 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.

## **1.1 Contact Information**

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

City of New Bedford  
133 William Street  
New Bedford, Massachusetts 02740  
Contact: Mr. David Fredette  
(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 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 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. Such approval will be obtained by the LSP by making appropriate submittals to MassDEP and other environmental regulatory agencies (as needed) describing the planned construction activities.

Under a separate contract/authorization, 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 to implement the proposed construction activities. The LSP will periodically inspect the construction activities to ensure consistency with the modified RAM, this revised SMP document and applicable MCP and MassDEP policies. 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
- Loading
- Off-Site transportation
- MCP related decontamination activities

Where necessary, the LSP will also collect any samples required to pre-characterize excavation area soils (as needed), or other materials, 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 that meets 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 for hazardous material should also have OSHA Site Supervisor Training.

### **1.3 Existing Site Conditions**

The Acquired Residential Properties portion of the Site (the "Site"), is located on the eastern end of Greenwood and Ruggles Streets at the intersection of Hathaway Street 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 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 will be prepared by the LSP and will be submitted to MassDEP prior to initiating excavation activities. The RAM Plan will specify 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 modified RAM Plan will describe 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 Bill of Lading (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.

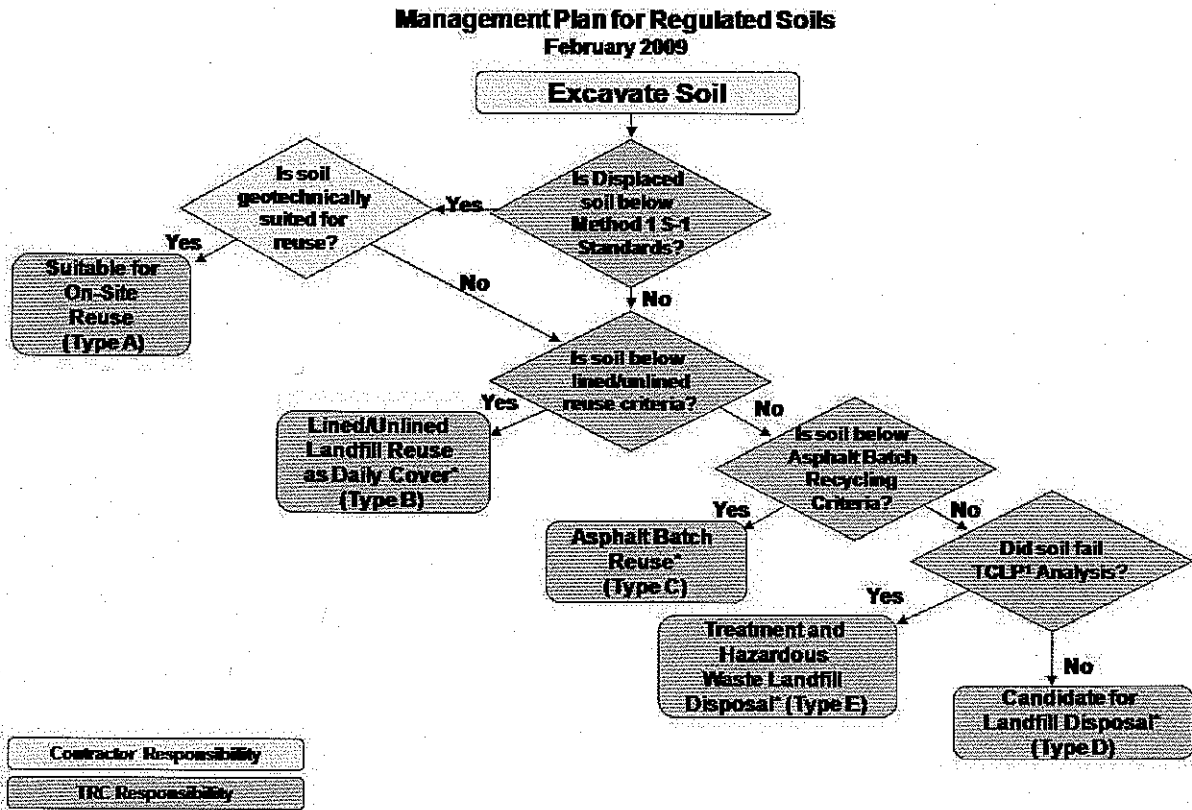
### ***1.3.8 40 CFR Part 761***

Certain EPA regulations address the management of PCB contaminated soil and other materials. Approval from EPA for the activities described in the modified RAM, insofar as EPA's jurisdiction extends, has been sought by the City.

## 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, 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; offsite 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:



<sup>1</sup> – TCLP = Toxicity Characteristic Leachate Procedure

<sup>2</sup> – 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) 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).

## 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.

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 offsite 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 offsite 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 offsite 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.

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, will be temporarily stockpiled adjacent to the limited excavation, and utilized to backfill the excavations upon completion of the disconnection of underground utilities. 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. Any liquids generated by vehicle decontamination will be drummed and transported off-site for disposal. Any decontamination arrangements will be conducted consistent with the 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 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)**  
**September 16, 2009**

**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 the City of New Bedford Department of Public Facilities (DPF).
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 and the vendor completed, or will complete and submit documentation of completion to Inspectional Services Department.
7. TRC Environmental Inc prepared a Release Abatement Measure Plan to cover the work involved in the demolition project.
8. TRC Environmental Inc as well as Department of Public Infrastructure have prepared Health and Safety Plans to be implemented as required during the demolition work.

**PROPOSED SCHEDULE OF DEMOLITION WORK:**

**WORK BEGINNING SEPTEMBER 2009 AND  
CONTINUING THROUGH OCTOBER 2009  
(APPROXIMATELY 6 WEEKS).**

TASKS AS DETAILED BELOW DESCRIBE THE PROPOSED GENERAL FLOW OF WORK WITH SOME OVERLAP AND INTERCHANGING WHEN RESOURCES ARE AVAILABLE OR AS TASK COMPONENTS ARE COMPLETED.

## Task 1 SCHEDULED September 22<sup>th</sup> through 29<sup>th</sup>

1. **PERIMETER FENCE INSTALLATION @ 102 GREENWOOD STREET:** A chain link fence will be constructed along the south, east, and north property boundaries of 102 Greenwood St making connection to existing fencing at the south and west boundaries. One access gate will be located at the driveway. The fence will be constructed by Department of Public Infrastructure (DPI) using a hydraulic driving machine to push the fence posts into the ground so that no excavation will be necessary. Silt fence and hay bales will be installed down gradient of the perimeter fence to control runoff.
2. **STAGING OF THE WORK AREA @ 102 GREENWOOD STREET:** DPI will stage roll-off containers for debris loading and hauling in the driveway. 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, the lawn will be mowed and debris around the yard and the pool will be removed. Shrubs and trees requiring removal will be cut to ground level and removed.

## Task 2 SCHEDULED September 21<sup>th</sup> through 30<sup>th</sup>

1. **PERIMETER FENCE INSTALLATION @ GREENWOOD & RUGGLES STREETS:** The five properties on Greenwood and Ruggles Streets (101 and 111 Greenwood Street and 98, 108 and 118 Ruggles Street) will be surrounded by one continuous chain link fence located on Greenwood and Ruggles Streets and Hathaway Boulevard. The fence will be connected to existing fencing west of 118 Ruggles and 111 Greenwood Streets. One access gate will be installed in the Hathaway Boulevard fence section. Silt fence and hay bales will be installed down gradient sections of the perimeter fence to control runoff.
2. **STAGING OF THE WORK AREA GREENWOOD & RUGGLES STREETS:** 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, the lawn will be mowed and 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 3 SCHEDULED September 21<sup>st</sup> through 30<sup>th</sup>

1. **DEMOLITION @ 102 GREENWOOD STREET;** Roll-off containers will be staged as needed on the paved driveway. A track mounted excavator will be used to demolish the house and load the roll-off. 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 house and deck, the concrete foundation will be crushed to a 6-inch minus size to a location at or below grade. The basement space/slab will be filled/covered with crushed concrete foundation materials and with appropriately documented contaminant-free fill material screened in advance for the presence of regulated contaminants. The basement slab in the dwelling will be sufficiently broken and shattered using the excavator to enable

drainage and will be left in place. The water and sewer services for the lot will be decommissioned along with this demolition work.

2. **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.
3. **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. DPI will use the excavator to spread and grade the backfill material in 1' to 2' 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" to 4" of loam.
4. **DEBRIS CONTROL AND EQUIPMENT DECONTAMINATION:** DPI will decontaminate equipment that comes in contact with potentially contaminated soil consistent with regulatory approvals and otherwise conduct work in a manner to ensure soil is not tracked off site.
5. **FINAL GRADING OF LOAM AND SEEDING:** 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.

## Task 4 SCHEDULED September 28<sup>th</sup> through October 30<sup>th</sup>

1. **DEMOLITION @ GREENWOOD & RUGGLES STREET BLOCK:** Roll-off containers will be staged as needed on the steel plates. A track mounted excavator will be used to demolish the dwelling structures and load the roll-off. 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 dwelling and attached or associated structures, the concrete foundation will be crushed to a 6-inch minus size to a location at or below grade. The basement space/slab will be filled/covered with crushed concrete foundation materials and with appropriately documented contaminant-free fill material screened in advance for the presence of regulated contaminants. The basement slab in each dwelling will be sufficiently broken and shattered using the excavator to enable drainage and will be left in place. The anticipated sequence of demolition is to begin with # 111 Greenwood then # 101 Greenwood St., # 118 Ruggles St., # 108 Ruggles St., and finish with # 98 Ruggles Street. The water and sewer services for these lots will be decommissioned along with this demolition work.
2. **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.
3. **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' to 2' 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" to 4" of loam.

4. **DEBRIS CONTROL AND DECONTAMINATION OF EQUIPMENT:** DPI will decontaminate equipment that comes in contact with potentially contaminated soil consistent with regulatory approvals and otherwise conduct work in a manner to ensure soil is not tracked off site.
5. **FINAL GRADING OF LOAM AND SEEDING:** 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.

## ADDITIONAL NOTES PERTAINING TO DEMOLITION;

1. Typical hours of operations Monday through Saturday 7:30 AM to 6:00 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. Ordinary 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. Sampling of concrete will take place in advance of demolition to address regulatory requirements.
10. Shrubs and trees requiring removal will be cut to ground level and removed.
11. 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 regulatory approvals.
12. The demolition will be conducted under a MassDEP Release Abatement Measure (RAM) Plan (Modified) and an EPA notification. Where an inconsistency is identified between this Revised Demolition Plan, the 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**  
**EXCERPTS FROM 40 CFR PART 761**

(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

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:

(i) 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 cm<sup>2</sup>) 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 cm<sup>2</sup> 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 cm<sup>2</sup> 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 cm<sup>2</sup> of contaminated or potentially contaminated surface for at least 15 hours at  $\geq 20$  °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 cm<sup>2</sup> of contaminated or potentially contaminated surface for at least 15 hours at  $\geq 20$  °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 cm<sup>2</sup> of surface for at least 15 hours at  $\geq 20$  °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 cm<sup>2</sup>.

(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  $\geq 50$  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



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

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 35467, 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 cm<sup>2</sup> and smaller than 200 cm<sup>2</sup>.

(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:

(1) If the next selection of halves was left/right, the halves would be rectangles four times as long as they are wide (¾ 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 ( $\frac{1}{4}$  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 ( $\frac{1}{8}$  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 cm<sup>2</sup>) would be less than the required 100 cm<sup>2</sup> 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.

(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 cm<sup>2</sup>) 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 cm<sup>2</sup>.

**§ 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 cm<sup>2</sup>, then the entire 9.5 square meters has a PCB surface concentration of 20 µg/100 cm<sup>2</sup>, 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 cm<sup>2</sup> 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 cm<sup>2</sup>.

**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



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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

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 G**

# **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<br>1992-1993**                    | 1988                           |
| 101 Greenwood St. | 68                         | 1                                | <b>976</b>             | 3-6                   | 1949                                   | 2000                           |
| 102 Greenwood St. | 49                         | 1                                | <b>68.3</b>            | 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 (PM<sub>10</sub>). 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/m<sup>3</sup>). This instrumentation has an accuracy of 0.001 mg/m<sup>3</sup> (1 ug/m<sup>3</sup>). 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/m<sup>3</sup> 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/m<sup>3</sup> 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/m<sup>3</sup> 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)