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# *FINAL*
# North of Wood St. Monitoring Summary Report 2006 Remedial Dredging

## Environmental Monitoring, Sampling, and Analysis

## New Bedford Harbor Superfund Site

## New Bedford Harbor, MA

**FINAL REPORT**

# North of Wood St. Monitoring Summary Report
# 2006 Remedial Dredging

**Environmental Monitoring, Sampling, and Analysis**
**New Bedford Harbor Superfund Site**
**New Bedford Harbor, MA**

**Submitted to:**

**Department of the Army**
**U.S. Army Corps of Engineers**
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# EXECUTIVE SUMMARY

The North of Wood St. (NWS) sampling occurred in November 2006, and was conducted in support of remedial dredging activities in New Bedford Harbor. In 2002-2003 approximately 15,000 cubic yards of material was removed from the NWS area. The NWS site was remediated using methods to eliminate the potential for sediment resuspension and recontamination. However, post-remediation sampling identified elevated PCB concentrations on the eastern shoreline of the NWS area, and in certain sub-tidal locations. The November 2006 sampling was conducted to assess the effectiveness of prior remediation and potential recontamination of this area due to sediment transport from unremediated areas. Additional studies in this area are proposed for 2007.

The NWS includes in-river sediments and marsh soils on the eastern and western shores of the river. A total of 15 push-core samples were collected in this area. Additionally, 7 soil samples were collected via push-core from the shoreline of the Acushnet River north of Wood Street. Surface sediments at each of the in river samples were similar with a thin layer of fine black silt. Below this surface layer most of the stations were characterized by medium to fine sand and clay. However, the soil samples ranged greatly from medium to fine sandy soil to a dry crumbly sand and pebble mixture to decaying vegetation in sandy soils. All samples were analyzed for 18 PCB congeners, and 4 samples were selected to be analyzed for PCB homologue groups.

Total PCB concentrations in river sediment samples ranged from 0.16 mg/kg to 100 mg/kg. Compared to the results obtained from the January 2006 sampling event (ENSR), approximately half of the November 2006 data points showed an increase in PCB concentrations, while the other half showed a decrease. The largest increases in PCB concentrations from previous measurements were found in the mid-channel stations. Total PCB concentrations for the 5 soil samples collected from the remediated areas on the eastern shoreline ranged from 0.082 mg/kg to 0.35 mg/kg. Total PCB concentrations in shoreline soils indicated that the fall 2005 shoreline excavation was effective, and no substantial recontamination occurred between December 2005 (completion of remediation) and November 2006 (Battelle sampling event).

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# 1.0 INTRODUCTION

The New Bedford Harbor Superfund Site (Site), located in Bristol County, Massachusetts, extends from the shallow northern reaches of the Acushnet River estuary south through the commercial harbor of New Bedford and into 17,000 adjacent acres of Buzzards Bay (Figure 1). Industrial and urban development surrounding the harbor has resulted in sediments becoming contaminated with high concentrations of many pollutants, notably polychlorinated biphenyls (PCBs) and heavy metals. At least two manufacturers in the area used PCBs while producing electronic devices from 1940 to the late 1970s, when the use of PCBs was banned by the EPA. Based on human health concerns and ecological risk assessments, the U.S. Environmental Protection Agency (USEPA) added New Bedford Harbor to the National Priorities List in 1983 as a designated Superfund Site. Through an Interagency Agreement between the USEPA and the U.S. Army Corps of Engineers, New England District (USACE NAE), the USACE is responsible for carrying out the design and implementation of the remedial measures at the site. The Site has been divided into three areas – the upper, lower and outer harbors – consistent with geographical features of the area and gradients of contamination (Figure 2).

Aerovox Inc. in New Bedford, MA used PCBs from c. 1940 to c. 1977 in the manufacture of electrical capacitors and transformers. This facility is considered one of the major sources of historic PCB contamination to New Bedford Harbor. The highest concentrations of PCBs were found in sediments in a 5-acre area in the northern portion of the Acushnet River Estuary adjacent to the Aerovox facility. These 'hot spot' sediments, which contained PCBs upwards of 100,000 mg/kg, were removed between 1994 and 1995 as part of USEPA's first clean-up phase. Full scale remediation dredging was initiated in 2004 and continued in 2005 and 2006. To a lesser extent, PCB contamination in New Bedford Harbor is related to activities at the Cornell-Dubilier mill on the western shore of the outer harbor. In 2005 a 15 acre underwater cap pilot project was implemented near Cornell-Dubilier to cap PCB contaminated sediments.

Located at the far northern end of the Upper Harbor are areas which have been prioritized for restoration activities based on their location in residential neighborhoods. The North of Wood Street area (NWS) includes in-river sediments and marsh soils on the eastern and western shores of the river. The area ranges from approximately 250-ft south of the Wood St. Bridge to approximately 0.25 miles north of the bridge. Sediments and soils in the NWS area previously had PCB concentrations as high as 46,000 mg/kg. Per the 1998 Record of Decision (ROD), clean up criteria were set at 1 mg/kg for residential shoreline areas, 10 mg/kg for the sub-tidal sediments, 25 mg/kg for the top foot of shoreline soils in the two shoreline parks, and 50 mg/kg for shoreline soils deeper than the top foot in the two shoreline parks.

In the winter of 2002-2003 approximately 15,000 cubic yards of material was removed from the NWS area. The site was remediated using temporary dams and pumps to divert river water around the site. This allowed excavation activities to be conducted on dry sediments and soils, thus eliminating the potential for sediment resuspension and recontamination. Clean fill was used to restore the river banks, but sub-tidal areas were left at the depth of excavation (i.e., not backfilled). Marsh and upland vegetation was planted above the low water line to stabilize and restore the shoreline. In August of 2004 post-remediation sampling revealed elevated PCB

concentrations on the eastern shoreline of the NWS area, and in certain sub-tidal locations. Elevated concentrations were found above the high tide line suggesting that incomplete remediation was a more likely cause than recontamination from in-river sources. Additional remediation and restoration efforts were conducted in December of 2005 to remove the remaining contamination. Samples collected before and after this effort showed an improvement in shoreline PCB concentrations (ENSR 2006).

Sampling was conducted to assess the effectiveness of prior remediation and potential recontamination of this area due to sediment transport from unremediated areas. A planning meeting was held on October 26, 2006 with the USACE, EPA, and Battelle to determine the priority locations for the 2006 sampling. Twenty-one (21) sampling locations were selected (Figure 3). These included 14 sediment stations in the river, 5 soil locations in the remediated marsh area on the east side of the river south of River View Park, and 2 shoreline locations on the lumber yard site on the west side of the river.

This report describes sampling activities conducted in November 2006 at the NWS area. A description of survey methods is provided in Section 2. Results of sampling and testing are provided in Section 3. A discussion of the survey results are provided in Section 4.

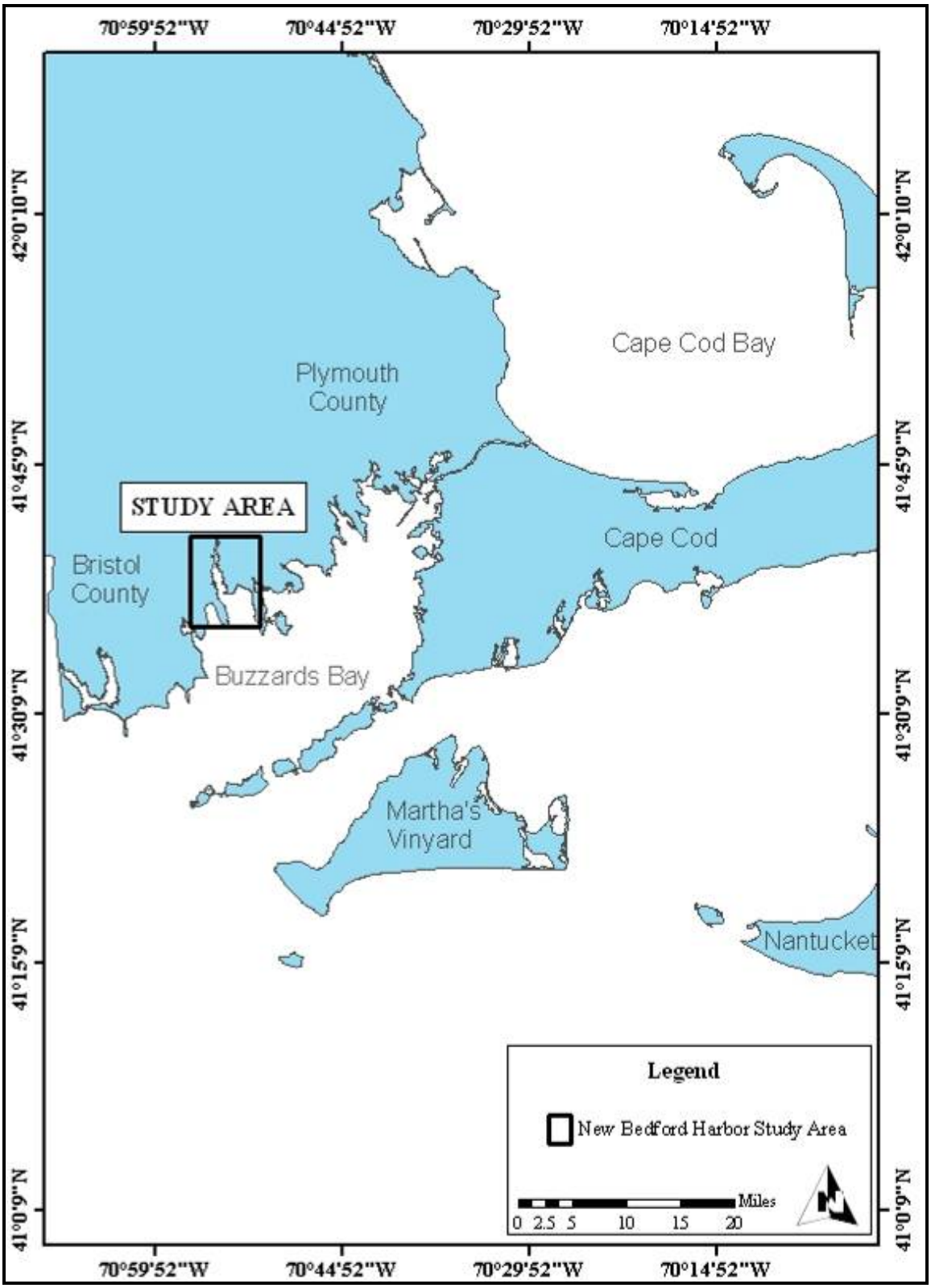


**Figure 1. Location of the Site in Southeastern, MA.**

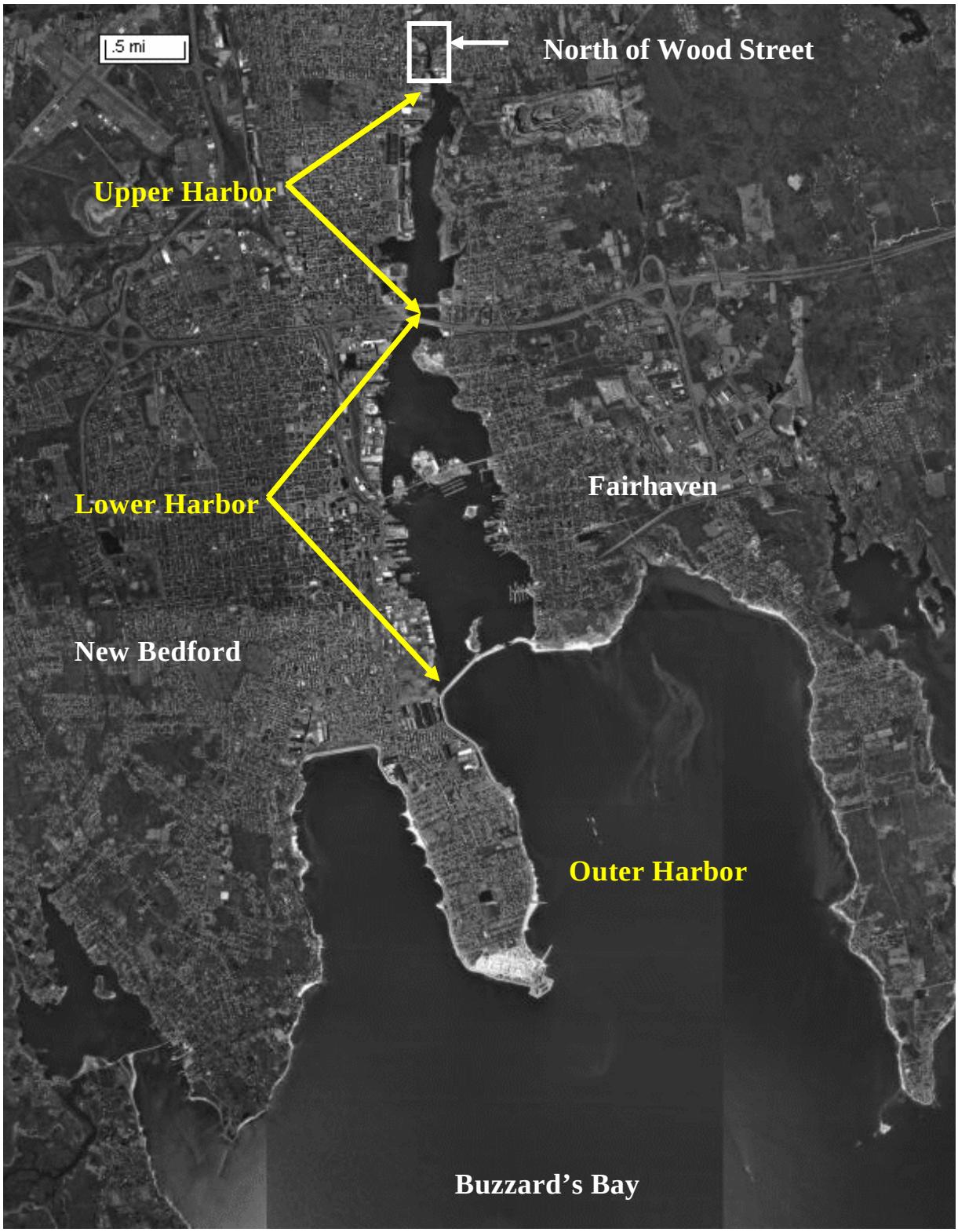


**Figure 2. New Bedford Harbor Project Areas.**

**Figure 3. Locations of 2006 NWS Sampling Stations**

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# 2.0 METHODS

The Battelle QAPP (Battelle, June 2006a) and the Sediment Monitoring Field Sampling Plan (FSP) (Battelle, July 2006b) contain additional details on survey/sampling methods.

## 2.1 Sediment and Soil Collections

In-river sediments were collected in Lexan™ core barrels attached to a stainless steel push core sampler. In all cases, a one foot core was targeted. Samples in deeper waters were collected from a boat, while shallow water samples were collected by wading. The push core sampler is designed to securely hold one end of a pre-cut length of core barrel. The stainless steel socket which holds the core liner was attached to a suitable length of push rod based on the water depths for the sampling effort. A piston assembly inside the core barrel was used to create suction during retrieval of the sample so that no sediment was lost from the bottom the barrel. The piston assembly was positioned just inside the leading end of the core liner and the piston line was held loosely on deck. The device was lowered into the water until the leading end of the core bore barrel contacted the sediment surface. The piston attachment line was then tied off securely on the deck, thus fixing the elevation of the piston assembly. In driving the push-core into the sediment, the piston created a syringe effect as the core liner was driven past the fixed elevation of the piston. The sampler was recovered onto the deck. The bottom end of the core barrel was fitted with a plastic cap, after which the sediment on the external body of the sampler was rinsed off. After thoroughly cleaning the sampling device the core liner was removed from the socket assembly, the piston assembly was then removed, and the top of the core liner was fitted with a plastic end cap. Soil samples were collected in Lexan™ core barrels inserted into a soil auger.

All cores were kept intact in the liners and returned to the Sawyer St. field trailer for photodocumentation, visual characterization, and subsampling for chemical analysis. Once the core was deemed acceptable, a Sediment Sampling Log sheet was completed. The log form included date and time, sample coordinates, sample ID, sediment characteristics, and any other descriptive information. These log sheets are provided in Appendix A.

## 2.2 Processing

All cores were documented with digital photographs. Digital photographs of the cores were uploaded to the New Bedford Harbor project database. These photographs are linked in the database to the location information and to the analytical results and can be viewed individually. The file name of each photo taken was recorded on the Sediment Sampling Log forms. Each photograph contains the following elements in the frame:

- *The sediment core*. Photographing was done through the clear liner.
- *Measurement reference*. A tape measure (or equivalent) marked in decimal feet ran parallel to length of the core.
- *Sample identifier*. A card, paper, whiteboard, or equivalent was placed next to the core with the following written information:
    - Sample ID
    - Station location

- Date
- Time
- Indication of the top vs. bottom of the core

Two 6-inch composite samples were taken from each core. The sample from the 0.0 – 0.5 foot interval was analyzed for PCBs. The sample from the 0.5 – 1.0-foot interval was frozen and archived until further notice. Samples were collected into 8 oz glass jars with Teflon lined lids. All samples were held on ice while in the field and frozen upon receipt at the laboratory. Holding times for samples were 14 days to extraction and 40 days to analysis.

## 2.3 Analytical

See the QAPP Addendum *Environmental Monitoring, Sampling, and Analysis at the New Bedford Harbor Superfund Site, New Bedford, MA* for detailed analytical requirements (Battelle, 2006a).

The analyses of 18 NOAA PCB congeners and PCB homologue groups in sediment/soil samples were conducted by Battelle Duxbury laboratory. Results are provided in Appendix B. Sediment/soil samples were extracted following modified EPA Method 3545. Samples were air-dried overnight to ensure percent solids in the samples were >50%. Approximately 5 g of air-dried sample was spiked with surrogates and extracted using Accelerated Solvent Extraction (ASE). The extracts were processed through activated copper and then received disposable Florisil column clean-up. In response to expected high concentrations of PCBs in these samples, most of the sample extracts were pre-diluted prior to analysis. However, some of the extracts still required further dilution in order to resolve concentrations for compounds that exceeded the calibration range during the initial analyses.

The post-Florisil extract was concentrated and fortified with internal standards (IS). All extracts were analyzed for 18 NOAA PCB congeners using gas chromatography/electron capture detector (GC/ECD), following modified EPA Method 8082. Sample data were quantified by the method of internal standards, using the spiked IS compounds. Positive congener results were confirmed by a secondary column confirmation analysis with the higher of the two results reported, unless analyst discretion required otherwise (e.g. the result without an interference signal was reported).

Extracts selected for PCB homologue analysis (approximately 7.5% of all the samples) were analyzed using gas chromatography/mass spectrometry (GC/MS), following modified EPA Method 1668A. Sample data were quantified by the method of internal standards, using the IS compounds.

# 3.0 RESULTS

## 3.1 Sample Collection and Analysis

A total of 15 surface sediment samples (14 field samples + 1 field duplicate) were collected. Additionally, 7 soil samples were collected from the shoreline of the Acushnet River north of Wood Street. Table 1 lists sample collection information. Appendix A contains sediment and soil Sampling Field Logs.

All samples were analyzed for 18 PCB congeners, and 4 samples were selected by the Battelle field team to be analyzed for PCB homologue groups. Sample analysis was performed by Battelle Duxbury laboratory. Detailed analytical results, including concentrations for individual 18 congeners and concentrations for individual homologue groups are presented in Appendix B.

**Table 1. Listing of Field Data from the North of Wood St. Core Surveys**

| North Of Wood St. Core Collections | | | | |
|---|---|---|---|---|
| **Station** | **Collection Date** | **Collection time** | **Northing (NAD 83 MA ft)** | **Easting (NAD 83 MA ft)** |
| *Sediment Samples* | | | | |
| C006-033 | 11/06/2006 | 8:33 | 2708615 | 815412 |
| C006-028 | 11/06/2006 | 9:01 | 2708704 | 815401 |
| C006-039 | 11/06/2006 | 10:13 | 2708513 | 815410 |
| C006-040 | 11/06/2006 | 10:36 | 2708514 | 815466 |
| C006-049 | 11/06/2006 | 10:49 | 2708403 | 815469 |
| C006-048 | 11/06/2006 | 11:01 | 2708382 | 815420 |
| C006-030E | 11/06/2006 | 12:55 | 2708682 | 815497 |
| C006-055 | 11/07/2006 | 7:42 | 2708268 | 815460 |
| C006-062 | 11/07/2006 | 8:03 | 2708165 | 815566 |
| C006-023 | 11/07/2006 | 9:40 | 2708814 | 815412 |
| C006-030W | 11/07/2006 | 14:42 | 2708653 | 815363 |
| C006-016 | 11/07/2006 | 15:15 | 2708946 | 815393 |
| C006-010 | 11/07/2006 | 15:40 | 2709108 | 815349 |
| C006-038 | 11/08/2006 | 11:24 | 2708518 | 815383 |
| *Soil Samples* | | | | |
| 06-NWS-36 | 11/06/2006 | 13:40 | 2708762 | 815513 |
| 06-NWS-35 | 11/06/2006 | 13:55 | 2708761 | 815509 |
| 06-NWS-34 | 11/07/2006 | 15:20 | 2708923 | 815338 |
| 06-NWS-38 | 11/07/2006 | 13:50 | 2708819 | 815500 |
| 06-NWS-37 | 11/07/2006 | 12:45 | 2708682 | 815535 |
| 06-NWS-39 | 11/07/2006 | 13:20 | 2708820 | 815509 |
| 06-NWS-33 | 11/15/2006 | 13:54 | 2709040 | 815330 |

## 3.2 Physical Characteristics

### 3.2.1 Surface Sediments

Surface sediments at each of the in river samples were similar. A relatively thin layer (0.1 – 0.4 feet) of fine black silt was found at each location. Below this surface layer most of the stations were characterized by medium to fine sand and clay. There were a few exceptions, including the northernmost station (C006-010) which had unconsolidated coarse sand, pebbles, and rock; and station C006-023 which contained a 0.2-ft thick layer of wood chips. Appendix A contains characterization logs of each of the stations.

### 3.2.2 Shoreline Soils

Soil samples collected on the western side of the river on the lumber yard site were somewhat different than the samples collected in the recently remediated areas on the eastern shore south of River View Park. The upper 0.5-ft of sample in the western locations consisted of a medium to fine sandy soil. At the more northerly site (NWS-33) the bottom 0.5-ft of sample was a dry crumbly sand and pebble mixture. At the more southerly station (NWS-34) the lower portion of the core was packed with a layer of decaying vegetation in sandy soils.

The eastern shoreline samples showed some variability even over the relatively small horizontal distribution. The two northernmost stations contained ~0.5-ft of medium-grained sand and clay over a 0.5-ft of coarse sand, gravel, and clay. This presumably represents the backfilled soils overlying the gravel/sand base layer. Samples NWS-35 and NWS-36 were nearly identical to each other. Each sample consisted of ~0.75-ft of coarse to fine sand with a silt and organic component. Refusal was consistently met at the bottom of these cores, and deeper samples could not be obtained. Station NWS-37 was the southernmost of the soil locations. This sample consisted of 0.4-ft of brown sandy clay on top of an erosion control netting. Below this was a heterogeneous mixture of clay, pebbles, sand, and asphalt. Appendix A contains characterization logs of each of the stations.

## 3.3 PCB Congener Results

Table 2 presents the total PCB results total PCB concentration results in river sediment samples and shoreline soil samples collected from the North of Wood Street area during the November 2006 sampling effort by Battelle. Total PCBs presented in Table 2 were calculated as the sum of 18 NOAA congeners multiplied by the project-specific factor of 2.6 for both sediments and shoreline soils. Non-detected results were treated as 0 mg/kg, and not included in the calculation.

Total PCB concentrations in sediment samples ranged from 0.16 mg/kg to 100 mg/kg. Total PCB concentrations for the 5 soil samples collected from the remediated areas on the eastern shoreline ranged from 0.082 mg/kg to 0.35 mg/kg, all below 1 mg/kg. The distribution of PCBs in sediments and surface soils are shown in Figure 4. Analytical PCB results are provided in Appendix B.

**Table 2. Summary of Total PCB Concentrations in Sediments and Shoreline Soils**

| Station ID | Total PCB * (mg/kg) |
|---|---|
| Sediment Samples | |
| C006-010 | 2.4 |
| C006-016 | 15 |
| C006-023 | 8.5 |
| C006-028 | 18 |
| C006-028 DUP | 9.4 |
| C006-030W | 0.16 |
| C006-030E | 0.72 |
| C006-033 | 93 |
| C006-038 | 1.8 |
| C006-039 | 13 |
| C006-040 | 47 |
| C006-048 | 100 |
| C006-049 | 12 |
| C006-055 | 9.6 |
| C006-062 | 40 |
| *Soil Samples* | |
| 06-NWS-33 | 0.014 |
| 06-NWS-34 | 3.4 |
| 06-NWS-35 | 0.27 |
| 06-NWS-36 | 0.14 |
| 06-NWS-37 | 0.35 |
| 06-NWS-38 | 0.15 |
| 06-NWS-39 | 0.082 |

* Sum of 18 congeners x 2.6

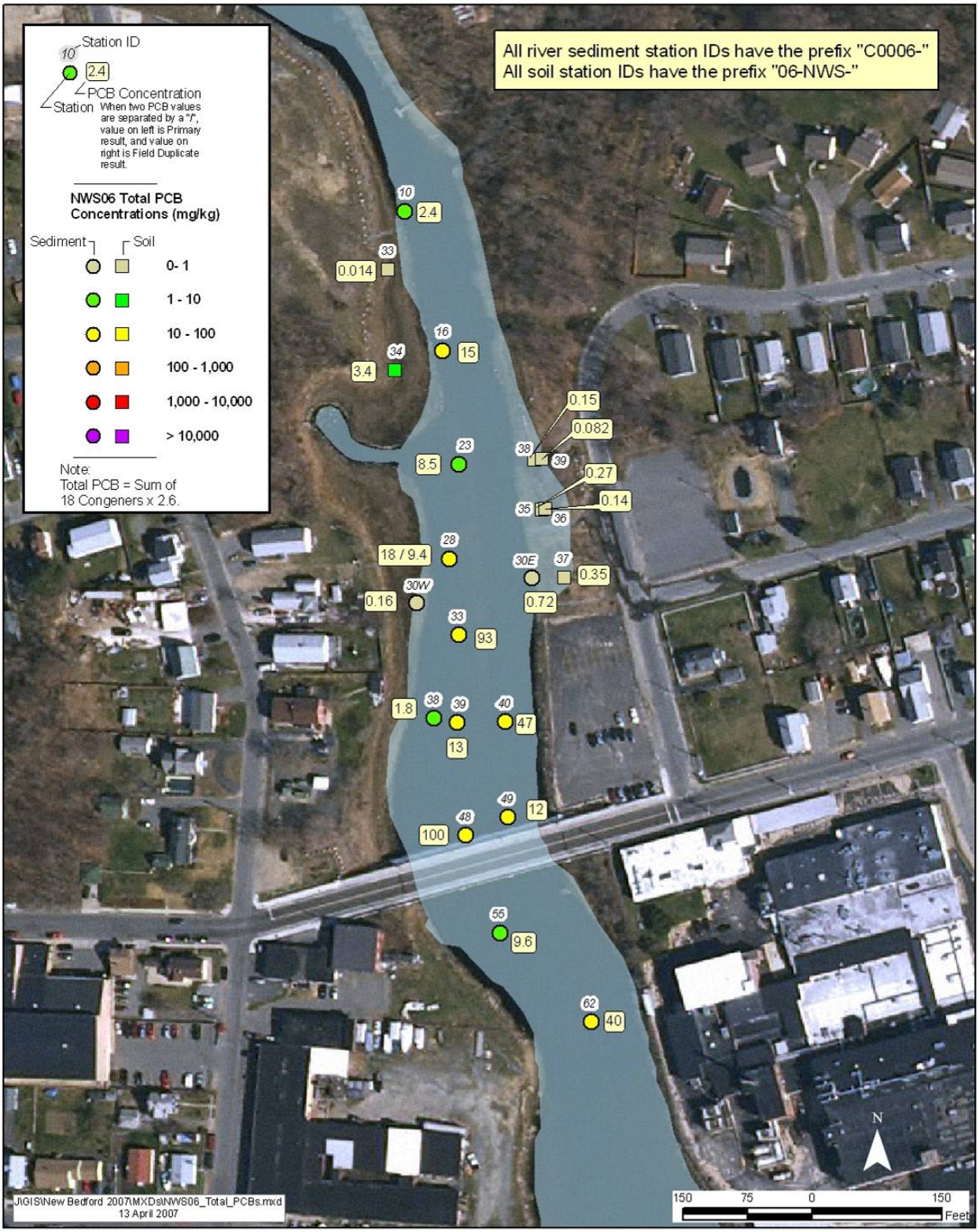


**Figure 4. Total PCB Concentrations in Sediment and Soil Samples North of Wood St.**

### 3.4 PCB Homologue Comparison

Out of the 22 samples collected from the North of Wood Street area, 4 samples were selected for PCB homologue group analysis. Table 3 summarizes the total PCB concentrations calculated as the sum of the homologue results and the corresponding total PCB concentrations calculated by congener results for these 4 samples. As indicated in Table 3, total PCB concentrations calculated by congener results are generally comparable to those calculated by homologue results. However, total PCBs calculated by congener results appeared to be slightly lower than those calculated by homologue results, with the relative difference decreasing with increasing total PCB concentration in the sample. Due to the small number of samples available for comparison it is difficult to evaluate the reasons or implications of this difference. During the 2006 post dredge sampling a greater number of samples were collected for homologue-congener comparison. These results are discussed in the Sediment Monitoring Summary Report for 2006 Remedial Dredging (Battelle, in preparation).

**Table 3. Total PCB Concentrations Calculated by Congener and Homologue Results**

| Sample ID | Total PCBs Calculated by Congener Results* (mg/kg) | Total PCBs Calculated by Homologue Results** (mg/kg) |
|---|---|---|
| S-06D-C006028-00-05 | 18 | 19 |
| S-06D-C006028-00-05-DUP | 9.4 | 11 |
| S-06D-06NWS34-00-05 | 3.4 | 3.9 |
| S-06D-06NWS38-00-05 | 0.15 | 0.29 |

* Sum of 18 congeners x 2.6, non-detect = 0 mg/kg.
** Sum of 10 homologue groups, non-detect = 0 mg/kg.

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# 4.0 DISCUSSION

The North of Wood Street area was previously remediated by Tetra Tech FW, Inc (TTFW) in 2002-2003 to remove PCB-contaminated sediments and soils from the river and surrounding shoreline. A confirmatory sampling event was conducted by TTFW immediately following the remediation in February 2003. In August 2004 (pre-dredging), May 2005 (spring flow conditions), September 2005 (pre-dredging, late summer flow), and January 2006 (post-dredging), ENSR conducted four sampling events in the area to evaluate changes in river sediment PCB concentrations that may have occurred due to seasonal influence and/or dredging/remediation activities.

Table 4 summarizes the total PCB concentrations in sediments measured from previous sampling events ENSR (2006) and TTFW (2003) and for stations revisited in November 2006. The January 2006 sampling revealed an increase in PCB concentrations at in-river locations relative to previous sampling events. This increase could have resulted from a) transport of sediments from the upper harbor during dredging activities, b) natural (i.e., non-dredging related) transport of sediments from the upper harbor, or c) from releases during the small-scale (approximately one-half acre) inter-tidal zone remedial excavation in November/December 2005. The sampling effort conducted by Battelle in November 2006 following the 2006 dredging was to further assess potential recontamination of this area.

Total PCB concentrations in river sediment samples collected during Battelle's November 2006 sampling effort ranged from 0.16 mg/kg to 100 mg/kg. Compared to the results obtained from the January 2006 sampling event (ENSR), approximately half of the November 2006 data points showed an increase in PCB concentrations, while the other half showed a decrease. PCB concentrations in mid-channel stations (Stations 33, 48 and 40), showed the largest increases in concentrations from previous measurements. As has been noted during previous monitoring activities, this area is subject to dynamic sediment movements and is characterized by heterogeneous sediments. The variations observed in sediment concentrations at individual stations in 2006 are likely related to these factors. Annual monitoring will continue in this area as needed to continue to assess the potential for recontamination from the unremediated harbor areas immediately to the south.

**Table 4. Total PCB Concentrations in River Sediment Samples from the North of Wood Street Area.**

| Station ID | TTFW | ENSR | | | | Battelle |
|---|---|---|---|---|---|---|
| | Feb 2003 PCB Conc.* (mg/kg) | Aug 2004 PCB Conc.* (mg/kg) | May 2005 PCB Conc.* (mg/kg) | Sept 2005 PCB Conc.* (mg/kg) | Jan 2006 PCB Conc.* (mg/kg) | Nov 2006 PCB Conc.* (mg/kg) |
| C006-010 | 6.1 | 20 | - | 82 | 1 | 2.4 |
| C006-016 | 4.6 | 13 | - | 18 | 16 | 15 |
| C006-023 | 8.3 | 22 | 4 | 2 | 4 | 8.5 |
| C006-028 | 0.5 | 63 | 10 | 0.2 | 11 | 18 |
| C006-028 | - | - | - | - | - | 9.4 |
| C006-030W | - | - | - | 0.4 | 5 | 0.16 |
| C006-030E | - | - | - | 0.7 | 89 | 0.72 |
| C006-033 | 0.4 | 65 | 22 | 1 | 17 | 93 |
| C006-038 | 0.5 | 36 | - | 5 | 9 | 1.8 |
| C006-039 | 0.5 | 64 | 5 | - | - | 13 |
| C006-040 | 2.9 | 72 | 81 | 73 | 187 | 47 |
| C006-048 | 0.4 | 23 | 9 | - | - | 100 |
| C006-049 | 12 | 160 | 37 | 6 | 4 | 12 |
| C006-055 | 0.4 | 61 | - | 7 | 20 | 9.6 |
| C006-062 | 7.4 | 19 | - | 0.9 | 1 | 40 |

* Sum of 18 congeners x 2.6

Total PCB concentrations in shoreline soils measured in the most recent sampling event, indicated that the fall 2005 shoreline excavation was effective, and no substantial recontamination occurred between December 2005 (completion of remediation) and November 2006 (Battelle sampling event).

# 5.0 REFERENCES

Battelle, June 2006a. *Environmental Monitoring, Sampling, and Analysis Quality Assurance Project Plan Addendum New Bedford Harbor Superfund Site, New Bedford, Massachusetts*. Prepared under Contract DACW33-03-D-0004 Task Order No 0022 for the U.S. Army Corps of Engineers New England District, Concord, MA.

Battelle, 2006b. *Sediment Monitoring Field Sampling Plan New Bedford Harbor Superfund Site, New Bedford, Massachusetts*. Prepared under Contract DACW33-03-D-0004 Task Order No 0022 for the U.S. Army Corps of Engineers New England District, Concord, MA.

ENSR Corporation. August 2004. *Field Sampling Plan Addendum New Bedford Harbor Superfund Site.* Prepared Under USACE Contract No. Dacw33-00-D-0003 Task 010. U.S. Army Corps of Engineers New England District Concord, Massachusetts

ENSR Corporation. March 2006. *2005 Monitoring Summary Report; North of Wood Street Area Sampling.* Prepared Under USACE Contract No. Dacw33-00-D-0003 Task 012. U.S. Army Corps of Engineers New England District Concord, Massachusetts

Tetra Tech FW, Inc. August 2004. *North of Wood Street Confirmatory Sampling Report, New Bedford Harbor Superfund Site.*

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# Appendix A

# Sediment and Soil Sampling Field Logs

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**Battelle**
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**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-010 | Time On Station: | 1540 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006010-00-05 | Northing (NAD 83): | 2709107.8 | Water Depth (*A*): | 1.0 |
| Logged by: | DM | Easting (NAD 83): | 815349.5 | Length of push core assembly (*B*): | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 4.1 | Water surface to top of handle (*C*): | |
| Date: | 11-7-06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 0.7 |
| | | Time of Collection: | 1540 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1545 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

(*G*) Elevation of Water Surface (NVGD): *E - F*

(*H*) Elevation of the bottom of the core (NVGD): *G - (B - C)*

(*z**) Elevation of visual transition (NVGD): *H + (distance to visual transition)*

(*I*) Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

($I_2$) Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 0.7 | | | | | | | | |
| | 0.6 | fines: IT | | black | Soft | v. fine | | | S-06D-C006010-00-05 |
| | | | Coarse Sand Pebbles | grey | loose | Coarse | | | |
| | 0.3 | | | | | | | | |
| | 0.0 | | Coarse Sand clay Rock! | grey | loose | coarse | | | Bottom 0.2 was Too pebbly and Too short To save for archive |

File ID of digital photograph(s):

Comments: Had previously attempted w/ boat but bottom to hard and sandy all cores washed out. Collected by wading.

**Battelle**
*The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-016 | Time On Station: | 1500 | All measurements are ±0.1 feet | |
| Core Sample ID: | S-06D-C006016-00-05 | Northing (NAD 83): | 2708945.9 | Water Depth (*A*): | 0.5' |
| Logged by: | DM | Easting (NAD 83): | 815393.5 | Length of push core assembly (*B*): | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 4.2 | Water surface to top of handle (*C*): | |
| Date: | 11-7-06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 0.7' * |
| | | Time of Collection: | 1515 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1525 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 | | | | | | | | |
| | | 0.5 | fine | Silt/Sand | Black | Soft | med | | | S-06D-C006016-0005 |
| | | | | Coarse Sand + Silt | DK Grey | loose | Med/coarse | | | not enough material for bottom Archive. MRF 11/8/06 |
| | | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

*Could not penetrate any deeper. Waded in for sample

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | 1st | 2nd |
|---|---|---|---|---|---|---|
| Station ID: | C006-023 | Time On Station: | 0927 | **All measurements are ±0.1 feet** | | |
| Core Sample ID: | S-06D-C006023-00-05 | Northing (NAD 83): | 2708814.2 | Water Depth (*A*): | 5.3' | 5.3' |
| Logged by: | MW | Easting (NAD 83): | 815411.7 | Length of push core assembly (*B*): | 6.9' | 10.0' |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.3 | Water surface to top of handle (*C*): | 0.6' | 2.9' |
| Date: | 11/7/06 | Predicted Tide (ft): | 1st 2nd | Length of core (from bottom) (*D*): | 0.6' | 1.1 |
| | | Time of Collection: | 0932 \| 0940 | Surveyed elevation (NVGD 29) (*E*): | | |
| | | Time Depart Station: | 0950 | Water surface from surveyed elevation (*F*): | | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(l)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($l_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $l \neq l_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | | silt to sand | gray black | loose | fine to medium | | | S-06D-C-006023-00-05 |
| | 0.7 | | wood | salmon | loose | medium | | | S-06D-C006023-05-10 (ARCHIVE) |
| | 0.5 | | sandy clay | olive gray | firm | fine | | | |
| | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:
1st Attempt - good short core (discarded)
2nd Attempt - good - strong $H_2S$ odor

**Battelle**
*The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-028 | Time On Station: | 0848 | All measurements are ±0.1 feet | |
| Core Sample ID: | S-06D-C006028-00-16 DUP | Northing (NAD 83): | 2708704 | Water Depth (*A*): | 5.8 |
| Logged by: | AM | Easting (NAD 83): | 815401 | Length of push core assembly (*B*): | 10.0' |
| Collection Mechanism: | Push Core | GPS Accuracy: | 1.6 | Water surface to top of handle (*C*): | 2.3' |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.3' |
| | | Time of Collection: | 0920 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 0948 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|
| 1.3 | | silt organics | Black | soft | fine | | | * S-06D-C006028-00-03-DUP |
| 1.0 | | fine sand + clay | olive gray | firm | fine | | | 8 |
| 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

* Homologue + Congener

**Battelle**
*The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | | |
|---|---|---|---|---|---|---|
| Station ID: | C006-028 | Time On Station: | 0848 | **All measurements are ±0.1 feet** | 1ST | 2nd |
| Core Sample ID: | S-06D-C006-028-00-10 | Northing (NAD 83): | 2708704 | Water Depth (*A*): | 5.8 | 5.8' |
| Logged by: | AM | Easting (NAD 83): | 815401 | Length of push core assembly (*B*): | 10.8 | 10.0 |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 1.6 | Water surface to top of handle (*C*): | 2.2' | 2.3' |
| Date: | 11/6/06 | Predicted Tide (ft): | 1ST / 2nd | Length of core (from bottom) (*D*): | — | 1.3' |
| | | Time of Collection: | 0856 / 0901 | Surveyed elevation (NVGD 29) (*E*): | | |
| | | Time Depart Station: | 0948 | Water surface from surveyed elevation (*F*): | | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 1.3 | | | | | | | | * |
| | | — | Silt/organics | Black | Soft | fine | — | — | S-06D-C006028-00-05 |
| | 1.0 | | fine sand + clay | olive gray | firm | fine | | | S-06D-C006028-05-10 (Archive) |
| | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

1st attempt - crushed core

2nd attempt - ok.

* Composite + Homogenize

**Battelle** — The Business of Innovation

Project Name: *New Bedford Harbor Environmental Monitoring* | Project #: *G606422*
Location: *New Bedford, MA* | Vessel: CR environmental skiff
Client: *USACE NAE* | Chief Scientist: Alex Mansfield

| | | | 1st | 2nd | | 1st | 2nd |
|---|---|---|---|---|---|---|---|
| Station ID: | C006-030W ① | Time On Station: | 0804 | 1246 | All measurements are ±0.1 feet | | |
| Core Sample ID: | S-06DC006030W-00-10 | Northing (NAD 83): | 2708682.1 | | Water Depth (*A*): | 6.0' | 5.4 |
| Logged by: | MW | Easting (NAD 83): | 815497.0 | | Length of push core assembly (*B*): | | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.5 | | Water surface to top of handle (*C*): | 2.0' | 2.7 |
| Date: | 11/6/06 | Predicted Tide (ft): | | | Length of core (from bottom) (*D*): | | |
| | | Time of Collection: | 805 | 1255 | Surveyed elevation (NVGD 29) (*E*): | | |
| | | Time Depart Station: | 0815 | | Water surface from surveyed elevation (*F*): | | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| Elevation (NVGD) | (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 0.8 | | organics and sand | Black Brown | Sandy | fine to med | | S-06D-C006030W-00-05 | |
| | 0.7 | | sand | Olive Brown | Sandy | fine to med | | S-06D-C006030W-05-10 (Archive) | |
| | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:
- Rock and Gravel Bottom - moved from given coordinates
1st Attempt washout
2nd Attempt washout - no core collected
- could not find suitable bottom (moved on to next station)
① station location should be C030E, mistakenly labeled in planning phase

**Battelle**
*The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-030E W① | Time On Station: | 1406 | All measurements are ±0.1 feet | |
| Core Sample ID: | S-06D-C006030E-00-10 | Northing (NAD 83): | 2708653.3 | Water Depth (*A*): | 0.0 |
| Logged by: | CAM | Easting (NAD 83): | 815363.1 | Length of push core assembly (*B*): | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.4 | Water surface to top of handle (*C*): | |
| Date: | 11/7/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.0 |
| | | Time of Collection: | 1442 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1450 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

(*G*) Elevation of Water Surface (NVGD): *E - F*

(*H*) Elevation of the bottom of the core (NVGD): *G - (B - C)*

(*Z**) Elevation of visual transition (NVGD): *H + (distance to visual transition)*

(*I*) Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

($I_2$) Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 1.0 | | Soil | | loose | | | | Higher moisture content. |
| | 0.5 | | Med/fine Sand | Brown | Dry | med | | | lower |
| | 0.0 | | | | | | | | S-06D-C006030E-00-05 |
| | | | | | | | | | S-06D-C006030E-00-10 (Archive) |

File ID of digital photograph(s):

Comments:
sampled by walking.
location is ~2' in marsh grass. ~10-12' above boulder line

① Station location should be 030W; incorrectly labeled in planning phase

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | 1st | 2nd |
|---|---|---|---|---|---|---|
| Station ID: | C006-033 | Time On Station: | 0819 | **All measurements are ±0.1 feet** | | |
| Core Sample ID: | S-06D-C006033-00-10 | Northing (NAD 83): | 2708615.2 | Water Depth (*A*): | 6.4' | 6.3' |
| Logged by: | MW | Easting (NAD 83): | 815412.3 | Length of push core assembly (*B*): | 10.0' | 10.0' |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 1.84 | Water surface to top of handle (*C*): | 2.5' | 1.9' |
| Date: | 11/6/06 | Predicted Tide (ft): | 1st / 2nd | Length of core (from bottom) (*D*): | 0.7' | 1.3' |
| | | Time of Collection: | 0823 / 0833 | Surveyed elevation (NVGD 29) (*E*): | | |
| | | Time Depart Station: | 0843 | Water surface from surveyed elevation (*F*): | | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) | (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.9 | | silt and organic matter | Black | loose | fine | | | $H_2S$ odor |
| | | | | | | | | | | S-06D-C006033-00-05 |
| | | 0.4 | | coarse sand clay streaks | gray/Brn | sandy | small to medium | | | |
| | | 0.0 | | | | | | | | S-06D-C006033-05-10 (Archive) |

File ID of digital photograph(s):

Comments:
1st Attempt - good short core 0.7 (discarded)
2nd Attempt - good (1.5') strong $H_2S$ odor

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 038 | Time On Station: | 1120 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | C006-038 | Northing (NAD 83): | 2708518.3 | Water Depth (*A*): | 5.4 |
| Logged by: | MW | Easting (NAD 83): | 815383.0 | Length of push core assembly (*B*): | 5.7 |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 1.9 | Water surface to top of handle (*C*): | 2.9 |
| Date: | 11/8/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 0.5 |
| | | Time of Collection: | 1124 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1130 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|
| 0.5 | | | | | | | | |
| 0.4 | | Silt/Sand | Black | Dense | Fine | | | |
| | | Sand | gray | Dense | Fine to med | | | S-06D-C006038-0005 |
| 0.0 | | | | | | | | |
| | | | | | | | | No material for Archive MRF 11/8/06 |

File ID of digital photograph(s):

Comments:
- on several attempts denied any penetration at all on original C006-038 coordinates.
- moved several feet to above coordinates - short core denied penetration below 0.5

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-039 | Time On Station: | 1011 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006039-00-10 | Northing (NAD 83): | 2708513.4 | Water Depth (*A*): | 5.5' |
| Logged by: | MW | Easting (NAD 83): | 815409.9 | Length of push core assembly (*B*): | 7.0' |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.1 | Water surface to top of handle (*C*): | 0.0' |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.1' |
| | | Time of Collection: | 1013 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1023 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.1 | | Silt | Black | loose | fine | | | S-06D-C006039-00-05 |
| | | 0.7 | | | | | | | | |
| | | 0.3 | | Clay | olive | firm | fine | | | 0.2 - 0.3 sand layer |
| | | 0.2 | | sand | gray | sandy | medium | | | between clay |
| | | 0.0 | | Clay | | firm | fine | | | |
| | | | | | | | | | | S-06D-C006039-05-10 |
| | | | | | | | | | | (Archive) |

File ID of digital photograph(s):

Comments:

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006 - 040 | Time On Station: | 1031 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006040-00-10 | Northing (NAD 83): | 2708514.3 | Water Depth (*A*): | 5.6' |
| Logged by: | mw | Easting (NAD 83): | 815465.6 | Length of push core assembly (*B*): | 7.0' |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 3.5 | Water surface to top of handle (*C*): | 0.1' |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.1' |
| | | Time of Collection: | 1036 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1041 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.1 | | silt sand | Black gray | loose | fine med | | | S-06D-C006040-00-05 |
| | | 0.6 | | fine sand clay mix | Brown gray | firm | fine | | | S-06D-C006040-05-10 (Archive) |
| | | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

**Battelle** *The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-049 | Time On Station: | 1045 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006049-00-10 | Northing (NAD 83): | 270840.3.3 | Water Depth (*A*): | 4.4' |
| Logged by: | MW | Easting (NAD 83): | 815468.9 | Length of push core assembly (*B*): | 7.0' |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 3.0 | Water surface to top of handle (*C*): | 0.9' |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.1' |
| | | Time of Collection: | 1049 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1053 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.1 | | Silt | Black | loose | fine | | | $H_2S$ |
| | | 0.9 | | Clay | olive gray | firm | fine | | | S-06D-C006049-00-05 |
| | | 0.0 | | | | | | | | S-06D-C006049-05-10 (Archive) |

File ID of digital photograph(s):

Comments:
Strong $H_2S$ odor

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-048 | Time On Station: | 1058 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006048-00-10 | Northing (NAD 83): | 2708381.7 | Water Depth (*A*): | 4.4' |
| Logged by: | MW | Easting (NAD 83): | 815420.4 | Length of push core assembly (*B*): | 7.0' |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 3.9 | Water surface to top of handle (*C*): | 0.9' |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.5' |
| | | Time of Collection: | 1101 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1107 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.5 | | some organics Silt | Black | loose | fine | | | $H_2S$ |
| | | | | | | | | | S-06D-C006048-00-05 | |
| | | 0.7 | | Clay | olive gray | firm | fine | | | |
| | | | | clay/sand | | sandy | medium | | S-06D-C006048-05-10 | |
| | | 0.0 | | | | | | | | (Archive) |

File ID of digital photograph(s):

Comments:
Lost GPS (due to Bridge) just after arriving on station
Strong $H_2S$ odor

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-055 | Time On Station: | 0740 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006055-0005 | Northing (NAD 83): | 2708268 | Water Depth (*A*): | 7.6 |
| Logged by: | Am | Easting (NAD 83): | 815460 | Length of push core assembly (*B*): | 10.0 |
| Collection Mechanism: | Push-Core | GPS Accuracy: | 2.4 | Water surface to top of handle (*C*): | 0.4 |
| Date: | 11/7/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.3 |
| | | Time of Collection: | 0742 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 0757 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 1.3 | | silt | Black | soft | | | | S-06D-C006055-0005 |
| | 1.0 | | | olive gray | firm | fine | | | S-06D-C006055-05-10 (ARCHIVE) |
| | 0.0 | | clay w/ shell Hash | | | | | | |

File ID of digital photograph(s):

Comments:

**Battelle** *The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | C006-062 | Time On Station: | 0802 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-C006062-00-05 | Northing (NAD 83): | 2708165 | Water Depth (*A*): | 6.2 |
| Logged by: | DM | Easting (NAD 83): | 815566 | Length of push core assembly (*B*): | 10.0 |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.5 | Water surface to top of handle (*C*): | 1.9 |
| Date: | 11/7/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.5 |
| | | Time of Collection: | 0803 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 0809 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 1.5 | | Silt Fine Sand | DK grey | Med soft | med | | S-06D-C006062-00-05 | |
| | 1.25 | | Clay w/ Silt Sand Shell Hash | grey w/ mixed | firm | med | | S-06D-C00662-05-10 (Archive) | |
| | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

**Battelle** *The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-33 | Time On Station: | 1343 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-06NWS33-0010 | Northing (NAD 83): | 2709040 | Water Depth (*A*): | |
| Logged by: | MW | Easting (NAD 83): | 815330.6 | Length of push core assembly (*B*): | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2 2 | Water surface to top of handle (*C*): | |
| Date: | 11/15/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.0 |
| | | Time of Collection: | 1354 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1350 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1.0 | | ~~Fine to med~~ | | | wet | Fine to med | | | S-06D-06NWS33-0005 |
| .5 | | | Sand | Brown | cohesive | | | | |
| 0 | | | Sand and pebbles | Greyish brown | Dry crumbly | med to coarse | | | S-06D-06NWS33-0510 (ARCHIVE) |

File ID of digital photograph(s):

Comments: GPS 003

collected w/ soil auger

**Battelle** *The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-34 | Time On Station: | 1515 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-06NWS34-00-10 | Northing (NAD 83): | 2708923.3 | Water Depth (*A*): | NA |
| Logged by: | DM | Easting (NAD 83): | 815338.1 | Length of push core assembly (*B*): | ↓ |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 4.1' | Water surface to top of handle (*C*): | |
| Date: | 11-7-06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.0' |
| | | Time of Collection: | 1520 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1540 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| Elevation (NVGD) | (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 1.0 | | fine Sand Soil | Brown | Soft Cohesive | med | | | S-06D-06NWS34-00-05 * |
| | 0.5 | | Vegetation | | | | | | |
| | 0.0 | | med Sand Soil | Brown | Soft + Cohesive | med/ Coarse | | | S-06D-06NWS34-05-10 (Archive) |

File ID of digital photograph(s):

Comments:

* Congener + Homologue

**Battelle** *The Business of Innovation*

Project Name: *New Bedford Harbor Environmental Monitoring* | Project #: *G606422*
Location: *New Bedford, MA* | Vessel: CR environmental skiff
Client: *USACE NAE* | Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-37 | Time On Station: | 1230 | All measurements are ±0.1 feet | |
| Core Sample ID: | S-06D-06NWS37-00-09 | Northing (NAD 83): | 2708682 | Water Depth (*A*): | NA |
| Logged by: | DM | Easting (NAD 83): | 815535 | Length of push core assembly (*B*): | ↓ |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 3.2 | Water surface to top of handle (*C*): | ↓ |
| Date: | 11-7-06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 0.9' |
| | | Time of Collection: | 1245 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1300 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) | (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| S-06D-06NWS37-~~00~~05 | | 0.9 | | Sand Clay | Brown | Cohesive | med | | | Green fine mesh on surface |
| S-06D-06NWS37-0509 | | 0.0 | | Clay, Pebbles, Asphalt(?) Sand | mixed Black + ~~brown~~ | Dry Heterogeneous Not-cohesive (crumbly) | large | | | Heavy rope mesh at ~0.5' |

File ID of digital photograph(s):

Comments:

Battelle
The Business of Innovation

Project Name: *New Bedford Harbor Environmental Monitoring*
Location: *New Bedford, MA*
Client: *USACE NAE*

Project #: *G606422*
Vessel: CR environmental skiff
Chief Scientist: Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-~~0~~38 | Time On Station: | 1340 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-06NWS38-00-10 | Northing (NAD 83): | 2708819.2 | Water Depth (*A*): | NA |
| Logged by: | DW | Easting (NAD 83): | 815500.4 | Length of push core assembly (*B*): | ↓ |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.5 | Water surface to top of handle (*C*): | |
| Date: | 11-7-06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 1.0' |
| | | Time of Collection: | 1350 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) | (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.0 | | med sand clay | Brown | Soft wet | med | | S-06D-06NWS38-00-05 * | |
| | | 0.6 | | gravel sand clay | gray | unconsolidated | Large | | S-06D-06NWS38-05-10 | (ARCHIVE) |
| | | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

* MS/MSD

**Battelle** *The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-39 | Time On Station: | 1305 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-06NWS39-00-08 | Northing (NAD 83): | 2708819.7 | Water Depth (*A*): | NA |
| Logged by: | AM | Easting (NAD 83): | 8155809.2 | Length of push core assembly (*B*): | ↓ |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: (1) | 2.5 | Water surface to top of handle (*C*): | ↓ |
| Date: | 11-7-06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | 0.8 * |
| | | Time of Collection: | 1320 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1335 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D* — NA

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

| | Elevation (NVGD) (i.e. Bottom = *H*) | | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.8 | | | | | | | | |
| | | | | med sand + clay | DK Brown | wet cohesive | med | | | S-06D-06NWS39-0005 |
| | | 0.3 | | | | | | | | |
| | | 0.0 | | coarse sand pebbles clay | gray | loose uncemented | gravel large | | | S-06D-06NWS-39-05-08 (Archive) |

File ID of digital photograph(s):

Comments:

* could not penetrate any deeper

(1) extra digit — AM 11/7/06

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-36 | Time On Station: | 1330 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-06NWS36-00-05 | Northing (NAD 83): | 270876.6 | Water Depth (*A*): | |
| Logged by: | MW | Easting (NAD 83): | 815513.2 | Length of push core assembly (*B*): | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.5 | Water surface to top of handle (*C*): | |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | |
| | | Time of Collection: | 1340 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1345 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | 0.8 | | coarse to fine sand with silt and organics | olive brown | sandy | fine to med. | | S-06D-06NWS36-00-05 | S-06D-06NWS36-05-08 (ARCHIVE) |
| | 0.0 | | | | | | | | |

File ID of digital photograph(s):

Comments:

**Battelle**
*The Business of Innovation*

**Project Name:** *New Bedford Harbor Environmental Monitoring* **Project #:** *G606422*
**Location:** *New Bedford, MA* **Vessel:** CR environmental skiff
**Client:** *USACE NAE* **Chief Scientist:** Alex Mansfield

| | | | | | |
|---|---|---|---|---|---|
| Station ID: | 06-NWS-35 | Time On Station: | 1345 | **All measurements are ±0.1 feet** | |
| Core Sample ID: | S-06D-06NWS35-00-05 | Northing (NAD 83): | 2708761.2 | Water Depth (*A*): | |
| Logged by: | MW | Easting (NAD 83): | 815508.6 | Length of push core assembly (*B*): | |
| Collection Mechanism: | *Push-Core* | GPS Accuracy: | 2.4 | Water surface to top of handle (*C*): | |
| Date: | 11/6/06 | Predicted Tide (ft): | | Length of core (from bottom) (*D*): | |
| | | Time of Collection: | 1355 | Surveyed elevation (NVGD 29) (*E*): | |
| | | Time Depart Station: | 1400 | Water surface from surveyed elevation (*F*): | |

***Calculations for Determination of Z* Elevation***

*(G)* Elevation of Water Surface (NVGD): *E - F*

*(H)* Elevation of the bottom of the core (NVGD): *G - (B - C)*

*(z*)* Elevation of visual transition (NVGD): *H + (distance to visual transition)*

*(I)* Elevation of the sediment-water interface as measured from bottom of core (NVGD): *H + D*

*($I_2$)* Elevation of the sediment-water interface as measured from water depth (NVGD): *G - A*

(Note if $I \neq I_2$ within ± 1.0 feet, discard and resample)

NA

| | Elevation (NVGD) | (i.e. Bottom = *H*) | Lithology - Include USCS code | Type | Color | Consistency | Maximum particle size | Odor | Sample IDs | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.7 | | Coarse to fine sand with silt and organics | olive gray | sandy | fine to med | | | Throughout |
| | | 0.0 | | | | | | | | NOT enough material for Archives |
| | | | | | | | | | | ~~S-06NWS~~ |
| | | | | | | | | | | S-06D-06NWS35-00-05 |

File ID of digital photograph(s):

Comments:

# Appendix B

# Analytical Data

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# North of Wood Street Sediment Analytical Results

| Station ID | C006 -010 | | | C006 -016 | | | C006 -023 | | | C006 -028 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collected | 11/7/2006 | | | 11/7/2006 | | | 11/7/2006 | | | 11/6/2006 | | |
| Fraction | TOTAL | | | TOTAL | | | TOTAL | | | TOTAL | | |
| QC Code | SA | | | SA | | | SA | | | SA | | |
| Sample ID | S-06D-C006010-00-05 | | | S-06D-C006016-00-05 | | | S-06D-C006023-00-05 | | | S-06D-C006028-00-05 | | |
| Param Name | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ |
| 2,4'-Dicb (PCB 8) | 0.07017 | MG/KG_DRYWT | DME | 0.76278 | MG/KG_DRYWT | DME | 0.2953 | MG/KG_DRYWT | DME | 0.6821 | MG/KG_DRYWT | DME |
| 2,2',5-Tricb (PCB 18) | 0.18309 | MG/KG_DRYWT | D | 1.31126 | MG/KG_DRYWT | D | 0.56364 | MG/KG_DRYWT | D | 0.8542 | MG/KG_DRYWT | D |
| 2,4,4'-Tricb (PCB 28) | 0.17955 | MG/KG_DRYWT | D | 0.00998 | MG/KG_DRYWT | DU | 0.62834 | MG/KG_DRYWT | D | 1.2389 | MG/KG_DRYWT | D |
| 2,2',3,5'-Tetracb (PCB 44) | 0.0957 | MG/KG_DRYWT | D | 0.40902 | MG/KG_DRYWT | D | 0.23439 | MG/KG_DRYWT | D | 0.444 | MG/KG_DRYWT | D |
| 2,2',5,5'-Tetracb (PCB 52) | 0.16158 | MG/KG_DRYWT | D | 1.67855 | MG/KG_DRYWT | D | 0.72042 | MG/KG_DRYWT | D | 1.2943 | MG/KG_DRYWT | D |
| 2,3',4,4'-Tetracb (PCB 66) | 0.05077 | MG/KG_DRYWT | D | 0.2138 | MG/KG_DRYWT | D | 0.12378 | MG/KG_DRYWT | D | 0.3596 | MG/KG_DRYWT | D |
| 2,2',4,5,5'-Pentacb (PCB 101) | 0.04621 | MG/KG_DRYWT | D | 0.37671 | MG/KG_DRYWT | D | 0.20131 | MG/KG_DRYWT | D | 0.5095 | MG/KG_DRYWT | D |
| 2,3,3',4,4'-Pentacb (PCB 105) | 0.02317 | MG/KG_DRYWT | D | 0.06461 | MG/KG_DRYWT | D | 0.03058 | MG/KG_DRYWT | D | 0.1035 | MG/KG_DRYWT | D |
| 2,3',4,4',5-Pentacb (PCB 118) | 0.04118 | MG/KG_DRYWT | D | 0.29237 | MG/KG_DRYWT | D | 0.15036 | MG/KG_DRYWT | D | 0.436 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4'-Hexacb (PCB 128) | 0.0093 | MG/KG_DRYWT | DU | 0.03452 | MG/KG_DRYWT | D | 0.0131 | MG/KG_DRYWT | Dp | 0.0459 | MG/KG_DRYWT | D |
| 2,2',3,4,4',5'-Hexacb (PCB 138) | 0.03358 | MG/KG_DRYWT | Dp | 0.21266 | MG/KG_DRYWT | D | 0.09221 | MG/KG_DRYWT | D | 0.2782 | MG/KG_DRYWT | D |
| 2,2',4,4',5,5'-Hexacb (PCB 153) | 0.03717 | MG/KG_DRYWT | D | 0.38961 | MG/KG_DRYWT | D | 0.18165 | MG/KG_DRYWT | D | 0.4319 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4',5-Heptacb (PCB 170) | 0.0093 | MG/KG_DRYWT | DU | 0.01003 | MG/KG_DRYWT | DpJ | 0.00942 | MG/KG_DRYWT | DU | 0.0133 | MG/KG_DRYWT | Dp |
| 2,2',3,4,4',5,5'-Heptacb (PCB 180) | 0.0093 | MG/KG_DRYWT | DU | 0.04165 | MG/KG_DRYWT | D | 0.01885 | MG/KG_DRYWT | Dp | 0.0464 | MG/KG_DRYWT | D |
| 2,2',3,4',5,5',6-Heptacb (PCB 187) | 0.00921 | MG/KG_DRYWT | DU | 0.03994 | MG/KG_DRYWT | D | 0.01617 | MG/KG_DRYWT | Dp | 0.0354 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4',5,6-Octacb (PCB 195) | 0.0093 | MG/KG_DRYWT | DU | 0.01008 | MG/KG_DRYWT | DU | 0.00942 | MG/KG_DRYWT | DU | 0.0099 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,5',6-Nonacb (PCB 206) | 0.00921 | MG/KG_DRYWT | DU | 0.00998 | MG/KG_DRYWT | DU | 0.00933 | MG/KG_DRYWT | DU | 0.0098 | MG/KG_DRYWT | DU |
| Decacb - Congener (PCB 209) | 0.00921 | MG/KG_DRYWT | DU | 0.00998 | MG/KG_DRYWT | DU | 0.00933 | MG/KG_DRYWT | DU | 0.0098 | MG/KG_DRYWT | DU |
| Total MonoCB | | | | | | | | | | 0.0529 | MG/KG_DRYWT | D |
| Total DiCB | | | | | | | | | | 1.8993 | MG/KG_DRYWT | D |
| Total TriCB | | | | | | | | | | 6.5774 | MG/KG_DRYWT | D |
| Total TetraCB | | | | | | | | | | 4.9495 | MG/KG_DRYWT | D |
| Total PentaCB | | | | | | | | | | 4.159 | MG/KG_DRYWT | D |
| Total HexaCB | | | | | | | | | | 1.4305 | MG/KG_DRYWT | D |
| Total HeptaCB | | | | | | | | | | 0.2605 | MG/KG_DRYWT | D |
| Total OctaCB | | | | | | | | | | 0.0196 | MG/KG_DRYWT | DU |
| Total NonaCB | | | | | | | | | | 0.0196 | MG/KG_DRYWT | DU |
| DecaCB | | | | | | | | | | 0.0196 | MG/KG_DRYWT | DU |
| Total PCB Congeners (sum CONG x 2.6) | 2.4 | MG/KG_DRYWT | | 15 | MG/KG_DRYWT | | 8.5 | MG/KG_DRYWT | | 18 | MG/KG_DRYWT | |
| Total PCB Homologues (sum HOM) | | | | | | | | | | 19 | MG/KG_DRYWT | |

# North of Wood Street Sediment Analytical Results

| Station ID | C006 -028 | | | C006-030W | | | C006-030E | | | C006 -033 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collected | 11/6/2006 | | | 11/6/2006 | | | 11/7/2006 | | | 11/6/2006 | | |
| Fraction | TOTAL | | | TOTAL | | | TOTAL | | | TOTAL | | |
| QC Code | REP | | | SA | | | SA | | | SA | | |
| Sample ID | S-06D-C006028-00-05-DUP | | | S-06D-C006030E-00-05 | | | S-06D-C006030W-00-05 | | | S-06D-C006033-00-05 | | |
| Param Name | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ |
| 2,4'-Dicb (PCB 8) | 0.23974 | MG/KG_DRYWT | DME | 0.00391 | MG/KG_DRYWT | DME | 0.00594 | MG/KG_DRYWT | DME | 2.03 | MG/KG_DRYWT | D |
| 2,2',5-Tricb (PCB 18) | 0.49654 | MG/KG_DRYWT | D | 0.00848 | MG/KG_DRYWT | D | 0.017 | MG/KG_DRYWT | D | 4.5238 | MG/KG_DRYWT | D |
| 2,4,4'-Tricb (PCB 28) | 0.73319 | MG/KG_DRYWT | D | 0.00922 | MG/KG_DRYWT | D | 0.02937 | MG/KG_DRYWT | D | 6.7995 | MG/KG_DRYWT | D |
| 2,2',3,5'-Tetracb (PCB 44) | 0.27768 | MG/KG_DRYWT | D | 0.00409 | MG/KG_DRYWT | D | 0.0203 | MG/KG_DRYWT | D | 2.6765 | MG/KG_DRYWT | D |
| 2,2',5,5'-Tetracb (PCB 52) | 0.84896 | MG/KG_DRYWT | D | 0.01222 | MG/KG_DRYWT | D | 0.03604 | MG/KG_DRYWT | D | 9.1118 | MG/KG_DRYWT | D |
| 2,3',4,4'-Tetracb (PCB 66) | 0.13959 | MG/KG_DRYWT | D | 0.00408 | MG/KG_DRYWT | D | 0.02376 | MG/KG_DRYWT | D | 1.1834 | MG/KG_DRYWT | D |
| 2,2',4,5,5'-Pentacb (PCB 101) | 0.24927 | MG/KG_DRYWT | D | 0.00554 | MG/KG_DRYWT | D | 0.03108 | MG/KG_DRYWT | D | 2.5952 | MG/KG_DRYWT | D |
| 2,3,3',4,4'-Pentacb (PCB 105) | 0.03108 | MG/KG_DRYWT | D | 0.00118 | MG/KG_DRYWT | D | 0.00881 | MG/KG_DRYWT | Dp | 0.3079 | MG/KG_DRYWT | D |
| 2,3',4,4',5-Pentacb (PCB 118) | 0.17686 | MG/KG_DRYWT | D | 0.00644 | MG/KG_DRYWT | D | 0.032 | MG/KG_DRYWT | D | 1.827 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4'-Hexacb (PCB 128) | 0.01669 | MG/KG_DRYWT | Dp | 0.00101 | MG/KG_DRYWT | DU | 0.00509 | MG/KG_DRYWT | D | 0.165 | MG/KG_DRYWT | Dp |
| 2,2',3,4,4',5'-Hexacb (PCB 138) | 0.12583 | MG/KG_DRYWT | D | 0.00178 | MG/KG_DRYWT | D | 0.02555 | MG/KG_DRYWT | D | 1.3786 | MG/KG_DRYWT | D |
| 2,2',4,4',5,5'-Hexacb (PCB 153) | 0.23808 | MG/KG_DRYWT | D | 0.0049 | MG/KG_DRYWT | D | 0.03335 | MG/KG_DRYWT | D | 2.6999 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4',5-Heptacb (PCB 170) | 0.01012 | MG/KG_DRYWT | DU | 0.00101 | MG/KG_DRYWT | DU | 0.00332 | MG/KG_DRYWT | Dp | 0.1026 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5,5'-Heptacb (PCB 180) | 0.02836 | MG/KG_DRYWT | Dp | 0.00101 | MG/KG_DRYWT | DU | 0.00479 | MG/KG_DRYWT | Dp | 0.3183 | MG/KG_DRYWT | Dp |
| 2,2',3,4',5,5',6-Heptacb (PCB 187) | 0.02531 | MG/KG_DRYWT | D | 0.001 | MG/KG_DRYWT | DU | 0.00153 | MG/KG_DRYWT | Dp | 0.3134 | MG/KG_DRYWT | Dp |
| 2,2',3,3',4,4',5,6-Octacb (PCB 195) | 0.01012 | MG/KG_DRYWT | DU | 0.00101 | MG/KG_DRYWT | DU | 0.00089 | MG/KG_DRYWT | DU | 0.1026 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,5',6-Nonacb (PCB 206) | 0.01002 | MG/KG_DRYWT | DU | 0.001 | MG/KG_DRYWT | DU | 0.00088 | MG/KG_DRYWT | DU | 0.1016 | MG/KG_DRYWT | DU |
| Decacb - Congener (PCB 209) | 0.01002 | MG/KG_DRYWT | DU | 0.001 | MG/KG_DRYWT | DU | 0.00088 | MG/KG_DRYWT | DU | 0.1016 | MG/KG_DRYWT | DU |
| Total MonoCB | 0.00492 | MG/KG_DRYWT | DJ | | | | | | | | | |
| Total DiCB | 0.78685 | MG/KG_DRYWT | D | | | | | | | | | |
| Total TriCB | 3.93585 | MG/KG_DRYWT | D | | | | | | | | | |
| Total TetraCB | 2.94762 | MG/KG_DRYWT | D | | | | | | | | | |
| Total PentaCB | 2.22308 | MG/KG_DRYWT | D | | | | | | | | | |
| Total HexaCB | 0.7373 | MG/KG_DRYWT | D | | | | | | | | | |
| Total HeptaCB | 0.13824 | MG/KG_DRYWT | D | | | | | | | | | |
| Total OctaCB | 0.02004 | MG/KG_DRYWT | DU | | | | | | | | | |
| Total NonaCB | 0.02004 | MG/KG_DRYWT | DU | | | | | | | | | |
| DecaCB | 0.02004 | MG/KG_DRYWT | DU | | | | | | | | | |
| Total PCB Congeners (sum CONG x 2.6) | 9.4 | MG/KG_DRYWT | | 0.16 | MG/KG_DRYWT | | 0.72 | MG/KG_DRYWT | | 93 | MG/KG_DRYWT | |
| Total PCB Homologues (sum HOM) | 11 | MG/KG_DRYWT | | | | | | | | | | |

# North of Wood Street Sediment Analytical Results

| Station ID | C006 -038 | | | C006 -039 | | | C006 -040 | | | C006 -048 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collected | 11/8/2006 | | | 11/6/2006 | | | 11/6/2006 | | | 11/6/2006 | | |
| Fraction | TOTAL | | | TOTAL | | | TOTAL | | | TOTAL | | |
| QC Code | SA | | | SA | | | SA | | | SA | | |
| Sample ID | S-06D-C006038-00-05 | | | S-06D-C006039-00-05 | | | S-06D-C006040-00-05 | | | S-06D-C006048-00-05 | | |
| Param Name | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ |
| 2,4'-Dicb (PCB 8) | 0.04387 | MG/KG_DRYWT | DME | 0.32948 | MG/KG_DRYWT | D | 1.60337 | MG/KG_DRYWT | D | 2.2249 | MG/KG_DRYWT | D |
| 2,2',5-Tricb (PCB 18) | 0.08765 | MG/KG_DRYWT | D | 0.71267 | MG/KG_DRYWT | D | 3.58273 | MG/KG_DRYWT | D | 4.9156 | MG/KG_DRYWT | D |
| 2,4,4'-Tricb (PCB 28) | 0.13815 | MG/KG_DRYWT | D | 0.90014 | MG/KG_DRYWT | D | 3.55414 | MG/KG_DRYWT | D | 7.0581 | MG/KG_DRYWT | D |
| 2,2',3,5'-Tetracb (PCB 44) | 0.04969 | MG/KG_DRYWT | D | 0.40169 | MG/KG_DRYWT | D | 1.30759 | MG/KG_DRYWT | D | 3.1449 | MG/KG_DRYWT | D |
| 2,2',5,5'-Tetracb (PCB 52) | 0.19262 | MG/KG_DRYWT | D | 1.32295 | MG/KG_DRYWT | D | 4.70769 | MG/KG_DRYWT | D | 9.7601 | MG/KG_DRYWT | D |
| 2,3',4,4'-Tetracb (PCB 66) | 0.02011 | MG/KG_DRYWT | D | 0.15537 | MG/KG_DRYWT | D | 0.44133 | MG/KG_DRYWT | D | 1.3568 | MG/KG_DRYWT | D |
| 2,2',4,5,5'-Pentacb (PCB 101) | 0.04385 | MG/KG_DRYWT | D | 0.30953 | MG/KG_DRYWT | D | 0.88407 | MG/KG_DRYWT | D | 2.7937 | MG/KG_DRYWT | D |
| 2,3,3',4,4'-Pentacb (PCB 105) | 0.01105 | MG/KG_DRYWT | D | 0.0163 | MG/KG_DRYWT | D | 0.17116 | MG/KG_DRYWT | D | 0.437 | MG/KG_DRYWT | D |
| 2,3',4,4',5-Pentacb (PCB 118) | 0.03383 | MG/KG_DRYWT | D | 0.22586 | MG/KG_DRYWT | D | 0.57349 | MG/KG_DRYWT | D | 1.9893 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4'-Hexacb (PCB 128) | 0.01022 | MG/KG_DRYWT | DU | 0.00884 | MG/KG_DRYWT | DJ | 0.09564 | MG/KG_DRYWT | DU | 0.2147 | MG/KG_DRYWT | Dp |
| 2,2',3,4,4',5'-Hexacb (PCB 138) | 0.02706 | MG/KG_DRYWT | Dp | 0.20847 | MG/KG_DRYWT | D | 0.4671 | MG/KG_DRYWT | D | 1.6212 | MG/KG_DRYWT | D |
| 2,2',4,4',5,5'-Hexacb (PCB 153) | 0.04427 | MG/KG_DRYWT | D | 0.33756 | MG/KG_DRYWT | D | 0.83434 | MG/KG_DRYWT | D | 2.8752 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4',5-Heptacb (PCB 170) | 0.01022 | MG/KG_DRYWT | DU | 0.01004 | MG/KG_DRYWT | DU | 0.09564 | MG/KG_DRYWT | DU | 0.1117 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5,5'-Heptacb (PCB 180) | 0.01022 | MG/KG_DRYWT | DU | 0.03185 | MG/KG_DRYWT | Dp | 0.09564 | MG/KG_DRYWT | DU | 0.3498 | MG/KG_DRYWT | Dp |
| 2,2',3,4',5,5',6-Heptacb (PCB 187) | 0.00116 | MG/KG_DRYWT | DpJ | 0.03941 | MG/KG_DRYWT | D | 0.0947 | MG/KG_DRYWT | DU | 0.2974 | MG/KG_DRYWT | Dp |
| 2,2',3,3',4,4',5,6-Octacb (PCB 195) | 0.01022 | MG/KG_DRYWT | DU | 0.01004 | MG/KG_DRYWT | DU | 0.09564 | MG/KG_DRYWT | DU | 0.1117 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,5',6-Nonacb (PCB 206) | 0.01012 | MG/KG_DRYWT | DU | 0.00994 | MG/KG_DRYWT | DU | 0.0947 | MG/KG_DRYWT | DU | 0.1106 | MG/KG_DRYWT | DU |
| Decacb - Congener (PCB 209) | 0.01012 | MG/KG_DRYWT | DU | 0.00994 | MG/KG_DRYWT | DU | 0.0947 | MG/KG_DRYWT | DU | 0.1106 | MG/KG_DRYWT | DU |
| Total MonoCB | | | | | | | | | | | | |
| Total DiCB | | | | | | | | | | | | |
| Total TriCB | | | | | | | | | | | | |
| Total TetraCB | | | | | | | | | | | | |
| Total PentaCB | | | | | | | | | | | | |
| Total HexaCB | | | | | | | | | | | | |
| Total HeptaCB | | | | | | | | | | | | |
| Total OctaCB | | | | | | | | | | | | |
| Total NonaCB | | | | | | | | | | | | |
| DecaCB | | | | | | | | | | | | |
| Total PCB Congeners (sum CONG x 2.6) | 1.8 | MG/KG_DRYWT | | 13 | MG/KG_DRYWT | | 47 | MG/KG_DRYWT | | 100 | MG/KG_DRYWT | |
| Total PCB Homologues (sum HOM) | | | | | | | | | | | | |

# North of Wood Street Sediment Analytical Results

| Station ID | C006 -049 | | | C006 -055 | | | C006 -062 | | | 06-NWS-33 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collected | 11/6/2006 | | | 11/7/2006 | | | 11/7/2006 | | | 11/15/2006 | | |
| Fraction | TOTAL | | | TOTAL | | | TOTAL | | | TOTAL | | |
| QC Code | SA | | | SA | | | SA | | | SA | | |
| Sample ID | S-06D-C006049-00-05 | | | S-06D-C006055-00-05 | | | S-06D-C006062-00-05 | | | S-06D-06NWS33-00-05 | | |
| Param Name | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ |
| 2,4'-Dicb (PCB 8) | 0.37667 | MG/KG_DRYWT | DME | 0.249 | MG/KG_DRYWT | D | 2.0141 | MG/KG_DRYWT | D | 0.0007 | MG/KG_DRYWT | DME |
| 2,2',5-Tricb (PCB 18) | 0.66962 | MG/KG_DRYWT | D | 0.52599 | MG/KG_DRYWT | D | 3.6466 | MG/KG_DRYWT | D | 0.0006 | MG/KG_DRYWT | D |
| 2,4,4'-Tricb (PCB 28) | 0.87857 | MG/KG_DRYWT | D | 0.68314 | MG/KG_DRYWT | D | 3.1674 | MG/KG_DRYWT | D | 0.00114 | MG/KG_DRYWT | D |
| 2,2',3,5'-Tetracb (PCB 44) | 0.34302 | MG/KG_DRYWT | D | 0.32009 | MG/KG_DRYWT | D | 0.6755 | MG/KG_DRYWT | D | 0.00017 | MG/KG_DRYWT | DJ |
| 2,2',5,5'-Tetracb (PCB 52) | 1.03535 | MG/KG_DRYWT | D | 0.94872 | MG/KG_DRYWT | D | 4.0954 | MG/KG_DRYWT | D | 0.00135 | MG/KG_DRYWT | Dp |
| 2,3',4,4'-Tetracb (PCB 66) | 0.15605 | MG/KG_DRYWT | D | 0.12038 | MG/KG_DRYWT | D | 0.1288 | MG/KG_DRYWT | D | 0.00059 | MG/KG_DRYWT | Dp |
| 2,2',4,5,5'-Pentacb (PCB 101) | 0.29094 | MG/KG_DRYWT | D | 0.23872 | MG/KG_DRYWT | D | 0.446 | MG/KG_DRYWT | D | 0.00036 | MG/KG_DRYWT | D |
| 2,3,3',4,4'-Pentacb (PCB 105) | 0.03173 | MG/KG_DRYWT | D | 0.01035 | MG/KG_DRYWT | D | 0.0704 | MG/KG_DRYWT | D | 0.0003 | MG/KG_DRYWT | DU |
| 2,3',4,4',5-Pentacb (PCB 118) | 0.19881 | MG/KG_DRYWT | D | 0.17262 | MG/KG_DRYWT | D | 0.257 | MG/KG_DRYWT | D | 0.0006 | MG/KG_DRYWT | Dp |
| 2,2',3,3',4,4'-Hexacb (PCB 128) | 0.01016 | MG/KG_DRYWT | DU | 0.0041 | MG/KG_DRYWT | DpJ | 0.048 | MG/KG_DRYWT | DU | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5'-Hexacb (PCB 138) | 0.136 | MG/KG_DRYWT | D | 0.14961 | MG/KG_DRYWT | D | 0.2363 | MG/KG_DRYWT | Dp | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',4,4',5,5'-Hexacb (PCB 153) | 0.26526 | MG/KG_DRYWT | D | 0.23944 | MG/KG_DRYWT | D | 0.5182 | MG/KG_DRYWT | D | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5-Heptacb (PCB 170) | 0.00894 | MG/KG_DRYWT | DpJ | 0.0099 | MG/KG_DRYWT | DU | 0.048 | MG/KG_DRYWT | DU | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5,5'-Heptacb (PCB 180) | 0.01016 | MG/KG_DRYWT | DU | 0.01947 | MG/KG_DRYWT | Dp | 0.048 | MG/KG_DRYWT | DU | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',3,4',5,5',6-Heptacb (PCB 187) | 0.0312 | MG/KG_DRYWT | Dp | 0.01968 | MG/KG_DRYWT | D | 0.0621 | MG/KG_DRYWT | Dp | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,6-Octacb (PCB 195) | 0.01016 | MG/KG_DRYWT | DU | 0.0099 | MG/KG_DRYWT | DU | 0.048 | MG/KG_DRYWT | DU | 0.0003 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,5',6-Nonacb (PCB 206) | 0.01006 | MG/KG_DRYWT | DU | 0.0098 | MG/KG_DRYWT | DU | 0.0475 | MG/KG_DRYWT | DU | 0.0003 | MG/KG_DRYWT | DU |
| Decacb - Congener (PCB 209) | 0.01006 | MG/KG_DRYWT | DU | 0.0098 | MG/KG_DRYWT | DU | 0.0475 | MG/KG_DRYWT | DU | 0.0003 | MG/KG_DRYWT | DU |
| Total MonoCB | | | | | | | | | | | | |
| Total DiCB | | | | | | | | | | | | |
| Total TriCB | | | | | | | | | | | | |
| Total TetraCB | | | | | | | | | | | | |
| Total PentaCB | | | | | | | | | | | | |
| Total HexaCB | | | | | | | | | | | | |
| Total HeptaCB | | | | | | | | | | | | |
| Total OctaCB | | | | | | | | | | | | |
| Total NonaCB | | | | | | | | | | | | |
| DecaCB | | | | | | | | | | | | |
| Total PCB Congeners (sum CONG x 2.6) | 12 | MG/KG_DRYWT | | 9.6 | MG/KG_DRYWT | | 40 | MG/KG_DRYWT | | 0.014 | MG/KG_DRYWT | |
| Total PCB Homologues (sum HOM) | | | | | | | | | | | | |

# North of Wood Street Sediment Analytical Results

| Station ID | 06-NWS-34 | | | 06-NWS-35 | | | 06-NWS-36 | | | 06-NWS-37 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Collected | 11/7/2006 | | | 11/6/2006 | | | 11/6/2006 | | | 11/7/2006 | | |
| Fraction | TOTAL | | | TOTAL | | | TOTAL | | | TOTAL | | |
| QC Code | SA | | | SA | | | SA | | | SA | | |
| Sample ID | S-06D-06NWS34-00-05 | | | S-06D-06NWS35-00-05 | | | S-06D-06NWS36-00-05 | | | S-06D-06NWS37-00-05 | | |
| Param Name | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ | Result | Unit | FinQ |
| 2,4'-Dicb (PCB 8) | 0.11017 | MG/KG_DRYWT | DME | 0.00878 | MG/KG_DRYWT | DME | 0.007 | MG/KG_DRYWT | DME | 0.00951 | MG/KG_DRYWT | DME |
| 2,2',5-Tricb (PCB 18) | 0.19797 | MG/KG_DRYWT | D | 0.01524 | MG/KG_DRYWT | D | 0.00893 | MG/KG_DRYWT | D | 0.01385 | MG/KG_DRYWT | D |
| 2,4,4'-Tricb (PCB 28) | 0.19835 | MG/KG_DRYWT | D | 0.02014 | MG/KG_DRYWT | Dp | 0.00962 | MG/KG_DRYWT | D | 0.01496 | MG/KG_DRYWT | D |
| 2,2',3,5'-Tetracb (PCB 44) | 0.10143 | MG/KG_DRYWT | D | 0.00589 | MG/KG_DRYWT | D | 0.00263 | MG/KG_DRYWT | D | 0.00971 | MG/KG_DRYWT | D |
| 2,2',5,5'-Tetracb (PCB 52) | 0.25154 | MG/KG_DRYWT | D | 0.01414 | MG/KG_DRYWT | Dp | 0.00996 | MG/KG_DRYWT | Dp | 0.0186 | MG/KG_DRYWT | D |
| 2,3',4,4'-Tetracb (PCB 66) | 0.05957 | MG/KG_DRYWT | D | 0.00641 | MG/KG_DRYWT | D | 0.00276 | MG/KG_DRYWT | D | 0.01585 | MG/KG_DRYWT | D |
| 2,2',4,5,5'-Pentacb (PCB 101) | 0.09264 | MG/KG_DRYWT | D | 0.00769 | MG/KG_DRYWT | D | 0.00224 | MG/KG_DRYWT | D | 0.01021 | MG/KG_DRYWT | D |
| 2,3,3',4,4'-Pentacb (PCB 105) | 0.0336 | MG/KG_DRYWT | D | 0.00318 | MG/KG_DRYWT | Dp | 0.00149 | MG/KG_DRYWT | D | 0.00373 | MG/KG_DRYWT | Dp |
| 2,3',4,4',5-Pentacb (PCB 118) | 0.07742 | MG/KG_DRYWT | D | 0.00936 | MG/KG_DRYWT | D | 0.00306 | MG/KG_DRYWT | Dp | 0.01228 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4'-Hexacb (PCB 128) | 0.01312 | MG/KG_DRYWT | Dp | 0.00104 | MG/KG_DRYWT | DU | 0.00114 | MG/KG_DRYWT | DU | 0.00201 | MG/KG_DRYWT | Dp |
| 2,2',3,4,4',5'-Hexacb (PCB 138) | 0.06307 | MG/KG_DRYWT | D | 0.00559 | MG/KG_DRYWT | D | 0.00215 | MG/KG_DRYWT | Dp | 0.00977 | MG/KG_DRYWT | D |
| 2,2',4,4',5,5'-Hexacb (PCB 153) | 0.08289 | MG/KG_DRYWT | D | 0.00731 | MG/KG_DRYWT | D | 0.00246 | MG/KG_DRYWT | D | 0.012 | MG/KG_DRYWT | D |
| 2,2',3,3',4,4',5-Heptacb (PCB 170) | 0.01016 | MG/KG_DRYWT | DU | 0.00104 | MG/KG_DRYWT | DU | 0.00114 | MG/KG_DRYWT | DU | 0.00098 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5,5'-Heptacb (PCB 180) | 0.01227 | MG/KG_DRYWT | Dp | 0.00104 | MG/KG_DRYWT | DU | 0.00114 | MG/KG_DRYWT | DU | 0.00312 | MG/KG_DRYWT | Dp |
| 2,2',3,4',5,5',6-Heptacb (PCB 187) | 0.00182 | MG/KG_DRYWT | DpJ | 0.00103 | MG/KG_DRYWT | DU | 0.00113 | MG/KG_DRYWT | DU | 0.00097 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,6-Octacb (PCB 195) | 0.01016 | MG/KG_DRYWT | DU | 0.00104 | MG/KG_DRYWT | DU | 0.00114 | MG/KG_DRYWT | DU | 0.00098 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,5',6-Nonacb (PCB 206) | 0.01006 | MG/KG_DRYWT | DU | 0.00103 | MG/KG_DRYWT | DU | 0.00113 | MG/KG_DRYWT | DU | 0.00097 | MG/KG_DRYWT | DU |
| Decacb - Congener (PCB 209) | 0.01006 | MG/KG_DRYWT | DU | 0.00103 | MG/KG_DRYWT | DU | 0.00113 | MG/KG_DRYWT | DU | 0.00097 | MG/KG_DRYWT | DU |
| Total MonoCB | 0.01515 | MG/KG_DRYWT | DJ | | | | | | | | | |
| Total DiCB | 0.48518 | MG/KG_DRYWT | D | | | | | | | | | |
| Total TriCB | 1.26492 | MG/KG_DRYWT | D | | | | | | | | | |
| Total TetraCB | 0.90591 | MG/KG_DRYWT | D | | | | | | | | | |
| Total PentaCB | 0.81573 | MG/KG_DRYWT | D | | | | | | | | | |
| Total HexaCB | 0.3911 | MG/KG_DRYWT | D | | | | | | | | | |
| Total HeptaCB | 0.02012 | MG/KG_DRYWT | DU | | | | | | | | | |
| Total OctaCB | 0.02012 | MG/KG_DRYWT | DU | | | | | | | | | |
| Total NonaCB | 0.02012 | MG/KG_DRYWT | DU | | | | | | | | | |
| DecaCB | 0.02012 | MG/KG_DRYWT | DU | | | | | | | | | |
| Total PCB Congeners (sum CONG x 2.6) | 3.4 | MG/KG_DRYWT | | 0.27 | MG/KG_DRYWT | | 0.14 | MG/KG_DRYWT | | 0.35 | MG/KG_DRYWT | |
| Total PCB Homologues (sum HOM) | 3.9 | MG/KG_DRYWT | | | | | | | | | | |

# North of Wood Street Sediment Analytical Results

| Station ID | 06-NWS-38 | | | 06-NWS-39 | | |
|---|---|---|---|---|---|---|
| Collected | 11/7/2006 | | | 11/7/2006 | | |
| Fraction | TOTAL | | | TOTAL | | |
| QC Code | SA | | | SA | | |
| Sample ID | S-06D-06NWS38-00-05 | | | S-06D-06NWS39-00-05 | | |
| Param Name | Result | Unit | FinQ | Result | Unit | FinQ |
| 2,4'-Dicb (PCB 8) | 0.00558 | MG/KG_DRYWT | DME | 0.00188 | MG/KG_DRYWT | DME |
| 2,2',5-Tricb (PCB 18) | 0.0079 | MG/KG_DRYWT | D | 0.00635 | MG/KG_DRYWT | D |
| 2,4,4'-Tricb (PCB 28) | 0.00988 | MG/KG_DRYWT | D | 0.00544 | MG/KG_DRYWT | D |
| 2,2',3,5'-Tetracb (PCB 44) | 0.00311 | MG/KG_DRYWT | D | 0.00153 | MG/KG_DRYWT | D |
| 2,2',5,5'-Tetracb (PCB 52) | 0.00969 | MG/KG_DRYWT | Dp | 0.00611 | MG/KG_DRYWT | Dp |
| 2,3',4,4'-Tetracb (PCB 66) | 0.00295 | MG/KG_DRYWT | D | 0.00209 | MG/KG_DRYWT | D |
| 2,2',4,5,5'-Pentacb (PCB 101) | 0.00346 | MG/KG_DRYWT | D | 0.00128 | MG/KG_DRYWT | D |
| 2,3,3',4,4'-Pentacb (PCB 105) | 0.00394 | MG/KG_DRYWT | Dp | 0.0013 | MG/KG_DRYWT | D |
| 2,3',4,4',5-Pentacb (PCB 118) | 0.00422 | MG/KG_DRYWT | D | 0.00248 | MG/KG_DRYWT | Dp |
| 2,2',3,3',4,4'-Hexacb (PCB 128) | 0.00114 | MG/KG_DRYWT | DU | 0.00102 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5'-Hexacb (PCB 138) | 0.00405 | MG/KG_DRYWT | Dp | 0.00098 | MG/KG_DRYWT | DJ |
| 2,2',4,4',5,5'-Hexacb (PCB 153) | 0.00411 | MG/KG_DRYWT | D | 0.00206 | MG/KG_DRYWT | Dp |
| 2,2',3,3',4,4',5-Heptacb (PCB 170) | 0.00114 | MG/KG_DRYWT | DU | 0.00102 | MG/KG_DRYWT | DU |
| 2,2',3,4,4',5,5'-Heptacb (PCB 180) | 0.00114 | MG/KG_DRYWT | DU | 0.00102 | MG/KG_DRYWT | DU |
| 2,2',3,4',5,5',6-Heptacb (PCB 187) | 0.00112 | MG/KG_DRYWT | DU | 0.00101 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,6-Octacb (PCB 195) | 0.00114 | MG/KG_DRYWT | DU | 0.00102 | MG/KG_DRYWT | DU |
| 2,2',3,3',4,4',5,5',6-Nonacb (PCB 206) | 0.00112 | MG/KG_DRYWT | DU | 0.00101 | MG/KG_DRYWT | DU |
| Decacb - Congener (PCB 209) | 0.00112 | MG/KG_DRYWT | DU | 0.00101 | MG/KG_DRYWT | DU |
| Total MonoCB | 0.00078 | MG/KG_DRYWT | DJ | | | |
| Total DiCB | 0.02021 | MG/KG_DRYWT | D | | | |
| Total TriCB | 0.161 | MG/KG_DRYWT | D | | | |
| Total TetraCB | 0.04705 | MG/KG_DRYWT | D | | | |
| Total PentaCB | 0.03199 | MG/KG_DRYWT | D | | | |
| Total HexaCB | 0.02144 | MG/KG_DRYWT | D | | | |
| Total HeptaCB | 0.00691 | MG/KG_DRYWT | D | | | |
| Total OctaCB | 0.00225 | MG/KG_DRYWT | DU | | | |
| Total NonaCB | 0.00225 | MG/KG_DRYWT | DU | | | |
| DecaCB | 0.00225 | MG/KG_DRYWT | DU | | | |
| Total PCB Congeners (sum CONG x 2.6) | 0.15 | MG/KG_DRYWT | | 0.082 | MG/KG_DRYWT | |
| Total PCB Homologues (sum HOM) | 0.29 | MG/KG_DRYWT | | | | |

## Qualifiers:

| | |
|---|---|
| D | Dilution run. Initial run outside linear range of instrument |
| J | Analyte detected below the sample specific reporting limit |
| ME | Significant Matrix Interference - Estimated value |
| p | The relative percent difference (RPD) between the values obtained from the dual columns is >40%. |
| U | Analyte not detected at 3:1 signal:noise ratio. Reporting limit is reported. |

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