RESULTS OF YEAR 10 OPERATIONS, MAINTENANCE, AND MONITORING PLAN SAMPLING

Head of the Thea Foss Waterway Remediation, Tacoma, WA

Prepared for

PacifiCorp
and
Puget Sound Energy

Prepared by

TETRA TECH

August 2014

ISO 14001 GREEN DOVE AWARD SGS

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ACRONYMS AND ABBREVIATIONS

ARI	Analytical Resources, Inc.
BEHP	bis(2-ethylhexyl)phthalate
City	City of Tacoma
cm	centimeter
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
Corps	U.S. Army Corps of Engineers
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	p,p'-Dichlorodiphenyltrichloroethane
DEHP	bis(2-ethylhexyl)phthalate (BEHP)
DOF	Dalton, Olmsted and Fuglevand
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
HDPE	high-density polyethylene
HPAH	high molecular weight polycyclic aromatic hydrocarbon
ICP	Institutional Control Plan
LPAH	low molecular weight polycyclic aromatic hydrocarbon
µg/kg	microgram per kilogram
m	meter
mg/kg	milligram per kilogram
MLLW	mean lower low water
MOA	Memorandum of Agreement
MSS	Marine Sampling Systems, Inc.
OMMP	Operation, Maintenance, and Monitoring Plan
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PERCo	PacifiCorp Environmental Remediation Company
PSDDA	Puget Sound Dredged Disposal Analysis

ACRONYMS AND ABBREVIATIONS (continued)

PSEP	Puget Sound Estuary Program
QAPP	quality assurance project plan
QC	quality control
RA	Remedial Action Area
ROD	Record of Decision
SPI	Sediment Profile Imagery
SQO	sediment quality objective
SR	State Route
SVOC	semivolatile organic compound
Tetra Tech	Tetra Tech, Inc
TtEC	Tetra Tech EC, Inc
TtFW	Tetra Tech FW, Inc
Utilities	Advance Ross Subcompany, PacifiCorp, and Puget Sound Energy
WRDA	Water Resources Development Act

1. INTRODUCTION

This report was prepared on behalf of the Advance Ross Sub Company, PacifiCorp, and Puget Sound Energy (the Utilities) and presents the results of Year 10 Operations, Maintenance, and Monitoring Plan (OMMP) observations and sampling for the southern portion of the Thea Foss Waterway. In accordance with the OMMP, the report also provides an evaluation of the collective sampling results over the time period from Year 0 through Year 10. The waterway is part of the Commencement Bay Nearshore/Tideflats Superfund Site in Tacoma, Washington (Figure 1-1). The sampling and analyses were accomplished in accordance with the requirements of the OMMP prepared by Tetra Tech FW, Inc. (TtFW) et al. (2003) with amendments in March and April 2006 (PERCo 2006), March 2007 (PERCo 2007), and January 2009 (City of Tacoma 2009). The Utilities are responsible for Remedial Action Areas (RAs) 23 and 24 consistent with the Consent Decree and portions of RAs 19b, 20, and 22 as described in a confidential agreement with the City of Tacoma (the City). Portions of the waterway south of a sheet pile wall installed at Station 70+10 are the responsibility of the Utilities; this area is referred to in the remainder of the document as the Utilities' Work Area.

Construction of the remedy for the Utilities' Work Area was completed in February 2004 (DOF 2004a). The selected remedy for the Utilities' area of responsibility was containment of contaminated sediments south of waterway station 70+10. The primary components of the remedy are:

- Installation of a sheet pile wall at waterway station 70+10.
- Dredging beneath the current location of the scour protection apron at the head of the waterway and placement of capping and scour protection material where stormwater discharges from outfalls known as the Twin 96 outfalls.
- Placement of a high-density polyethylene (HDPE) cap over the former location of the State Route (SR) 509 seep.
- Placement of a sand cap over contaminated sediments and over the HDPE cap.
- Placement of slope cap and armor material on waterway slopes.

In addition to the physical remedy components described above, the Utilities' remedy also included the following:

- **Deauthorization of the navigation channel south of 70+10.** This required an act of Congress to achieve deauthorization. This deauthorization request was approved as part of the Water Resources Development Act (WRDA) Bill of 2007.

- **Institutional Control Plan.** On September 29, 2006, EPA provided final approval for the Utilities' Institutional Control Plan (ICP) for the long-term maintenance of the Head of the Waterway. In January 2007, EPA approved the model restrictive covenant language and the City and the Utilities worked on finalizing and recording restrictive covenants for affected properties on the Waterway. In January 2008, the Utilities completed the implementation of the ICP by ensuring that all of the restrictive covenants for affected properties in the Head of the Waterway had been recorded.

- **Consent Decree Milestones**. The Utilities completed remedial action construction in Remedial Action Areas 23 and 24 and portions of RAs 19b, 20, and 22 and received a Certification of Completion of Remedial Action Construction from the EPA on September 29, 2006, in compliance with Paragraph 50 of the Utilities' May 9, 2003, Consent Decree with EPA.

  The next milestone for the project, as set forth in Paragraph 51 of the Consent Decree, was completion of remedial action for RAs 23 and 24. The Utilities submitted the Draft Remedial Action Completion Report to EPA on October 11, 2004; Tetra Tech EC, Inc. (TtEC) received EPA comments on the text on February 15, 2005, and submitted responses on March 21, 2005. EPA indicated that to receive a Certificate of Completion pursuant to Paragraph 51.B, the Utilities must demonstrate that all restrictive covenants had been recorded. With the deauthorization of the Head of the Waterway and the filing of all of the restrictive covenants for properties located in the head of the Waterway, the Utilities fulfilled these lingering requirements and documented these actions in the final Remedial Action Completion Report, submitted on March 20, 2008. EPA reviewed and approved the Utilities final Completion report and provided the Utilities "Certification of Completion of Remedial Action for Remedial Action Areas 23 and 24" on June 24, 2008. This means that, pursuant to Paragraph 83 of the Consent Decree, the Utilities' covenant with respect to future liabilities related to Remedial Action Areas 23 and 24 is now in effect.

The City is responsible for remediation north of the sheet pile wall installed at waterway station 70+10. Immediately north of the Utilities' Work Area, the City's selected remedy consisted of dredging and capping to maintain the required navigation depth of –19 feet mean lower low water (MLLW). During the 2004 to 2005 construction season (between Year 0 and Year 1 monitoring), the City completed dredging and partial capping in part of the area next to the sheet pile wall (RA-20 and RA-22). Dredging by the City's contractor (Manson) in the adjacent remediation areas (RA-20 and RA-22) was completed between August 31 and September 17, 2004. Placement of a grout mat and final cap was completed in RA-19B (also adjacent to the sheet pile wall) during the previous 2003 to 2004 construction season. Additional cap placement was conducted by the City in December of 2005 (between Year 1 and Year 2 monitoring) in the Utilities' Work Area north of the SR 509 Bridge in the area of the Utilities' cap that was recontaminated during the City's remedial construction activities.

The City completed remedial action construction in the rest of the Waterway (area north of the sheet pile wall) and received a Certification of Completion of Remedial Action Construction from EPA on September 29, 2006.

1.1 PURPOSE AND OBJECTIVES

As part of the remedial design work, the Utilities prepared an OMMP that was approved by EPA (TtFW et al. 2003) and amended in March and April 2006 (PERCo 2006) and March 2007 (PERCo 2007). The City of Tacoma has also been performing supplemental sampling in the head of the Waterway to monitor the impact of the stormwater discharges on sediment (City of Tacoma 2009). The objectives of the Utilities' OMMP are as follows:

- Confirm long-term attainment of Sediment Quality Objectives (SQOs) specified in the Record of Decision (ROD) (EPA 1989) and Explanation of Significant Differences (ESDs) (EPA 1997, 2000).
- Evaluate the effectiveness of source control.
- Evaluate the enhancement of habitat function and fisheries resources.

In September 2004, the northern portion of the Utilities' completed cap was recontaminated with construction residuals from adjacent dredging activities being conducted by the City as part of their remedial program. The City addressed the area of recontamination in December 2005 by placing additional capping material on top of the area of concern. As a contingency of its approval, EPA required the City to closely monitor the effectiveness of the cap to ensure its protectiveness. Subsequently, the scope of the Year 3, 4, 5, 7 and 10 OMMP sampling program in the Head of the Waterway was expanded to include additional sampling stations in the area where additional capping material was placed. All activities related to the collection of these samples were coordinated between the City and the Utilities.

Data collected during the Year 1 (2005), Year 2 (2006), Year 3 (2007), Year 4 (2008), Year 5 (2009) and Year 7 (2011) OMMP sampling program confirmed that stormwater discharges are recontaminating the top of the cap. As of May 2011, 2 to over 36 centimeters (cm) of very fine-grained sediment had accumulated on top of the southern portion of the Utilities' cap. Constituents detected in the fine-grained sediment were typical of the suite of chemicals normally found in stormwater and have also been detected in stormwater sediment collected from pipe-end sediment traps prior to discharge to the Thea Foss Waterway.

To further assess the stormwater recontamination issue, the City submitted a supplemental sampling proposal to EPA in November 2006 and January 2009 to monitor concentrations of phthalates and polycyclic aromatic hydrocarbon (PAHs) in the Head of the Waterway. Subsequently, the scope of the Year 3, Year 4, Year 5, Year 7, and Year 10 OMMP sampling programs was expanded to include additional compliance monitoring sampling to evaluate the concentration trends for BEHP and PAHs. In addition, four compliance stations were added to the OMMP sampling program. The City was responsible for coordinating their efforts with the Utilities as part of the Year 3, 4, 5, 7 and 10 OMMP sampling programs.

With the submission of this report, the Utilities' have completed their obligations for monitoring as provided for under the 1993 OMMP and as amended in 2006 and 2007. Based on these results, the Utilities' plan to work with EPA to determine the scope of the monitoring activities that should be continued over the next 20 years, consistent with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Head of Thea Foss Waterway
Remediation Project

FIGURE 1-1
VICINITY MAP

2. OMMP ACTIVITIES

To meet the OMMP objectives, monitoring of the Utilities Work Area includes physical cap integrity assessment, recolonization monitoring, and compliance and recontamination sampling. Table 2-1 is the schedule for OMMP monitoring as revised in March and April 2006 (PERCo 2006), March 2007 (PERCo 2007) and January 2009 (City of Tacoma 2009). Physical observations include periodic visual inspections of the cap and hydrographic surveys. Recolonization includes assessment using Sediment Profile Imagery (SPI) as well as collection of benthic abundance samples. Sediment sampling includes collection of samples for chemical testing. Three types of sediment samples are collected as part of the OMMP:

- **Compliance Samples.** These are surface sediment samples collected from the depth interval of 0 to 10 cm. This is the point of compliance for application of the sediment quality objectives (SQOs).
- **Early-Warning Recontamination Samples.** Early-warning samples are collected to provide warning from possible “top-down” recontamination of the cap from sources such as stormwater. The early-warning samples are collected from depths of 0 to 2 cm from the cap surface. At any given point in time, this sediment represents the newest deposited sediment for the sample location.
- **Core Samples.** Core samples are collected to provide data to evaluate possible future “bottom-up” recontamination of the waterway cap.

In March 2006, the Utilities worked with the City to develop two sampling plan proposals for EPA’s consideration. The first plan was developed to monitor the effectiveness of the additional capping material placed in the Head of the Waterway by the City in December 2005 to address contamination associated with the City’s dredging operations. The sampling plan modified the existing OMMP for the Utilities’ Work Area and increased sampling in the area of recontamination. The second plan was developed in response to SQOs exceedances for bis(2-ethylhexyl)phthalate (BEHP) (also referred to as “DEHP” by the City) in the Head of the Waterway; it outlined a proposed approach for biological testing. The City submitted the proposed plans to EPA on March 23, 2006.

In April 2006, the Utilities and the City worked with EPA and the Corps to adequately respond to EPA and Corps comments on the sampling plans. The Utilities submitted a revised plan for sampling the area of additional cap material placement to EPA on April 28, 2006 (PERCo 2006). The revised plan was approved by EPA on May 4, 2006. EPA approved the March 23, 2006, Biological Testing Sampling Plan on May 1, 2006.

On November 28, 2006, the City submitted a technical memorandum to EPA outlining their proposal for additional sampling in the Head of the Waterway to monitor concentrations of phthalates and PAHs. The proposal was developed in response to the presence of phthalates and PAHs in early warning and compliance samples at concentrations that exceeded their SQOs as part of the Year 2 OMMP sampling event. Biological testing of a subset of the compliance stations in Year 2 confirmed that biological effects were observed in the bioassay test organisms.

On February 12, 2007, EPA and the Corps provided comments on the City's November 28, 2006, technical memorandum. On March 28, 2007, the Utilities, in cooperation with the City, provided a response to the comments provided by EPA and the Corps. The responses were discussed with the agencies in advance and the Utilities and the City received EPA approval of the plan for supplemental sampling April 12, 2007.

On January 27, 2009, the City submitted a technical memorandum to EPA outlining plans to collect and analyze compliance samples (0 to 10 cm) during the Year 5 OMMP sampling for phthalates and PAHs from the head of the Thea Foss monitoring locations as well as four locations from the area of additional cap material placement for a total of 18 samples (City of Tacoma 2009). The proposal was in response to the sampling results from the Year 4 OMMP sampling program indicating that phthalates and PAHs were continuing to recontaminate the Utilities' cap.

The EPA-approved revision to the OMMP monitoring schedule outlines the schedule for physical cap integrity monitoring and recontamination sampling. This revised table replaces Table 2-2 of the OMMP. Monitoring was to be completed on an annual basis for the first 5 years and in years 7 and 10. The specific monitoring tasks vary between years. Monitoring locations are shown in Figure 2-1.

2.1 YEAR 0 TO YEAR 9 OMMP ACTIVITIES

The Utilities have implemented the OMMP activities as outlined in Table 2-1 and have reported the results in annual data reports or technical memoranda submitted to EPA (DOF 2004, DOF and TtEC 2005, DOF 2005, TtEC 2006, 2007a, 2007b, 2007c, 2008, 2009, 2010, 2011, 2012, 2013). The results of each of these events are not summarized in this report but the analytical data are included in the data tables. The reader is referred to the specific reports for additional details on these earlier reports.

Table 2-1. OMMP Schedule (Revised March 2007 and January 2009)

	Monitoring Year										
	0[2/,6/]	**1**[6/]	**2**[3/,6/]	**3**[6/]	**4**[6/]	**5**[6/]	**6**[6/]	**7**[4/,6/]	**8**[6/]	**9**[6/]	**10**[6/]
Assumed Sediment Deposition											
Amount (cm)[1/]	0	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15
MONITORING TASK											
Physical Cap Integrity	X		x		x			x			x
Recontamination Sampling											
Compliance Sampling (0-10 cm)	X		x[7/]	x[8/]	x[7/,9/]	X[1/]		x			x
"Top Down" (0-2 cm)	X	x	x	x	x	x		x			x
"Bottom Up" Migration (0-3 ft)	X		x		x			x			x
"Visual" SR509 Seep Monitoring [5/]		x	x	x	x	x		x			x
Recolonization Monitoring			x		x			x			x

[1/] Work completed by Hart Crowser suggest a sediment deposition rate of 1 to 2 cm/year.
[2/] Completed soon after cap placement as part of CQAP and OMMP.
[3/] First 5-year review (Based on EPA's review cycle). Adjust monitoring schedule based on first 5 years of data.
[4/] Second 5-year review.
[5/] To be completed during daylight low tides (June/July)
[6/] Significant natural events may trigger additional monitoring activity. These events include a 50-year 24-hour storm event, one percent flood discharge (commonly called the 100-year flood event) or greater, or the occurrence of a design level seismic event (i.e., 4.5 magnitude or greater).
[7/] Samples will be collected and analyzed from four additional locations (i.e., S-15, S-17, S-19, and S-24) within the area of additional cap material placement during Year 2 and Year 4 monitoring. The additional samples from Stations S-15, S-17, S-19, and S-24 are in addition to the three samples that are to be collected from the existing sample stations (i.e. WC-10, WC-11, and WC-12) within the area of additional cap material placement. Results from the four additional sample locations together with three existing sample locations will be used to monitor the effectiveness of the additional cap material placement.
[8/] EPA directed the City to collect compliance monitoring samples from the 14 existing sample locations (WC01-WC14) as well as four additional locations (i.e., S-15, S-17, S-19, and S-24) during Year 3 monitoring.
[9/] The results from compliance sampling and analysis within the area of additional cap material placement during Years 2, 3, and 4 will be used to evaluate whether sample collection and analysis from the additional locations (i.e., footnote g) or additional monitoring events (i.e., footnote h) are warranted during subsequent monitoring years.
[10/] As outlined in the letter dated January 27, 2009, the City proposed to collect compliance monitoring samples from the 14 existing sample locations (WC01-WC14) and in the area of the additional cap placement material (S-15, S-17, S-19, and S-24) during the Year 5 monitoring. During Years 7 and 10 compliance samples from stations S-15, S-17, S-19, and S-24 will also be collected by the City.

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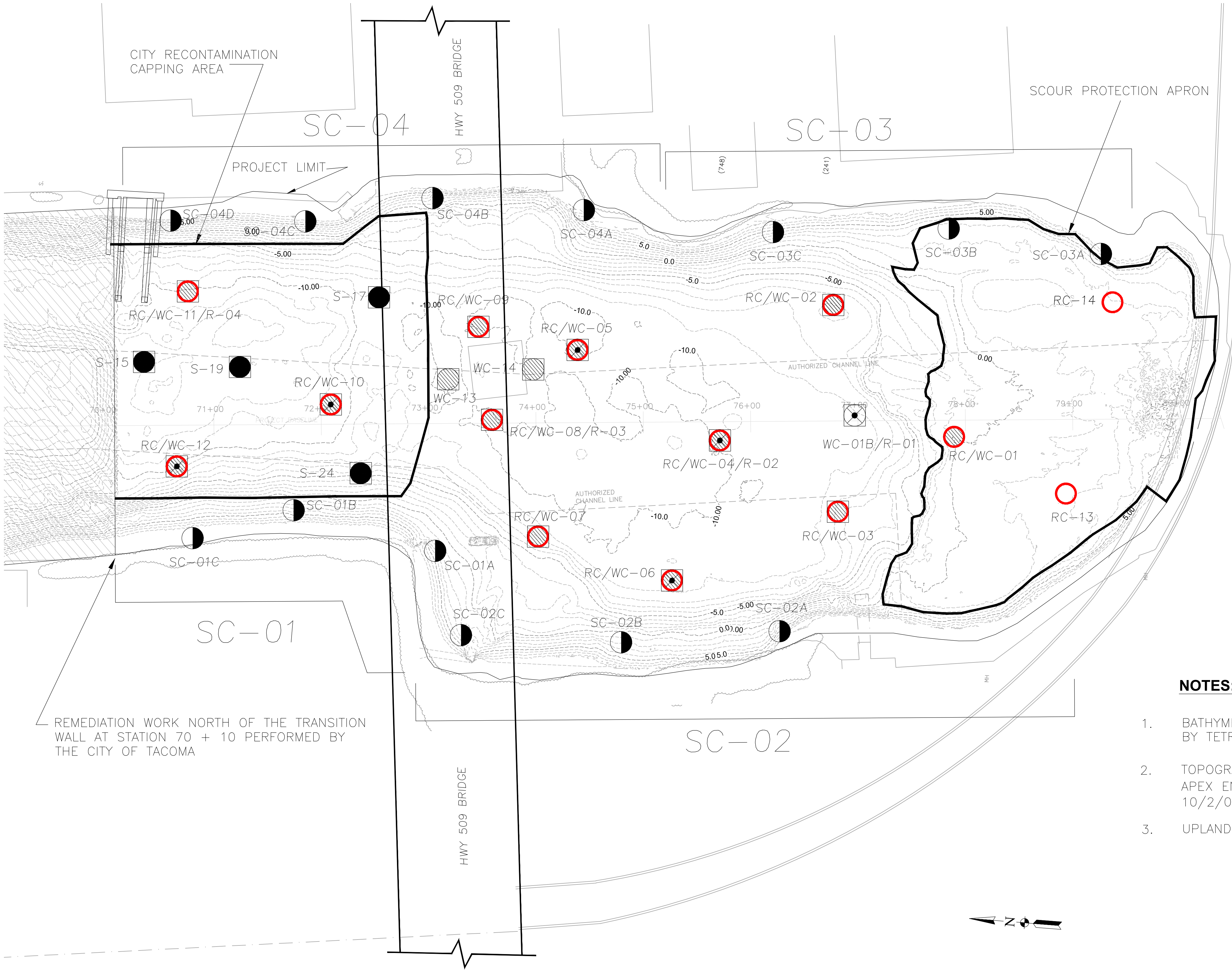

LEGEND:

	MAJOR CONTOUR LINES
	CITY OF TACOMA WORK AREA
	RC "EARLY WARNING – TOP DOWN SAMPLE" (0–2cm)
	SC SLOPE COMPLIANCE COMPOSITE (0–10cm)
	WC WATERWAY CAP COMPLIANCE SAMPLE (0–10 cm)
	WC EARLY WARNING SUBSURFACE CORE
	SPI SAMPLE
	SUPPLEMENTAL SAMPLE LOCATION

RC	RECONTAMINATION
WC	WATER CAP
SC	SLOPE CAP
R	RECOLONIZATION (BENTHIC INFAUNA)
SPI	SEDIMENT PROFILE IMAGERY

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

Thea Foss Waterway

Head of The Thea Foss Waterway
Post-Construction Monitoring

TETRA TECH

Figure 2-1
OMMP Locations

April 2014

Z:\Projects\Thea Foss\Year 10\Sheet Files\FossFigure 2-1.dwg
PLOT/UPDATE: May 29, 2014 12:21:12 PM

3. YEAR 10 PHYSICAL OBSERVATIONS

Physical observations for Year 10 OMMP monitoring included a visual inspection of the cap and shorelines at low tide and a hydrographic survey. The purpose of the physical observations was to assess the cap integrity and monitor the former SR-509 seep area for presence of NAPL sheens. The visual inspection assessed the slope cap and outfall scour cap protection. The hydrographic survey assessed the waterway cap consolidation and erosion.

3.1 VISUAL INSPECTION

Visual inspections of the cap were made on April 30, 2014, during a predicted low tide of -1.74 feet MLLW. The physical observations are documented in Appendix A. Overall, the April 2014 observations were similar to previous site visits and indicated the following:

- The scour protection apron is functioning as intended. No obvious signs of significant erosion were observed. A series of small shallow channels are present in the apron near the middle of the South end of the waterway, as previously noted in the Year 0 through Year 9 observations. Discharge flow from the outfalls 237a and 237b is more centralized in the waterway. The configuration and shallow depth of these channels appear unchanged from previous observations and the overall integrity of the cap has not been adversely impacted by the presence of these localized features. Silt continues to build up on and adjacent to this scour apron with the greatest accumulation on the east side of the scour apron.
- Waterway slopes show no visible evidence of slope erosion, sloughing, etc.
- In Year 9 monitoring, it was discovered that above Outfall 235 and along the upper part of the west bank, some work was completed that allows the public to get closer access to the waterway. The work included construction of a new walking path and restacking of erosion control quarry spalls above the head wall of Outfall 235 and placement of toe protection for the walking path. Similar to Year 9 observations, along the toe of this newly shaped slope, old debris that was used as fill material for the uplands area near the park and the esplanade (e.g., concrete, bricks, metal scrapes) was exposed. Exposed debris looked intact at the toe of the slope during the Year 10 physical inspection.
- Gas bubbles were observed throughout the head of the waterway and in the vicinity of the former SR-509 seep area during the site visit but no sheens were observed in the former SR-509 seep area.

- The scour protection adjacent to Outfall 243 (at Station 73+40 on the east side of the waterway under the SR-509 Bridge) shows no obvious signs of erosion or displacement. Water was flowing out of Outfall 243 during the site visit. The Tideflex™ valve at the end of Outfall 243 is covered with barnacles and does not appear to have been cleaned recently.
- The scour protection adjacent to Outfall 235 (at Station 73+20 on the west side of the waterway under the SR-509 Bridge) was reconfigured prior to the Year 6 site visit. Slope armor stone was restored on the slopes adjacent to the south and north Outfall #235 wing walls. This armor stone covers and provides additional protection to the underlying, finer-grained sand isolation cap from potential erosion due to wind/wave-action. The area shows minimal signs of erosion and displacement following the reconfiguration of this area that was performed during the Year 6 site visit. There continues to be a pool with a sandy bottom directly in front of the outfall as noted in previous years. Water was flowing out of Outfall 235 during the Year 10 OMMP daytime low tide site visit.
- At Outfall 235, both wing walls are separating from the Outfall 235 head wall. The City of Tacoma installed PK nails in 2008 on the north and south ends of the top of the headwall and on the west ends of the north and south wing walls to enable monitoring of any movement between the headwall and the wing walls. The PK nails on the south end of the wing wall have not been present since the Year 8 low tide walk in 2012. In Year 9, it was observed that the separation between the head wall and the wing walls were similar to Years 4 through 8 observations (i.e., 7.5 inches at the north wing wall and 9.5 inches at the south wing wall). Separation measurements were not possible during the Year 10 monitoring due to backfill of the head wall with quarry spall. However, the general conditions of the wing walls showed that the separation between the wing walls was similar to the previous observations indicating little to no additional movement.

3.2 HYDROGRAPHIC SURVEY

Tetra Tech conducted a bathymetry survey on April 29, 2014. The purpose of the survey was to evaluate changes in the bottom topography since the previous survey, Year 7 OMMP, in May 2011. The primary survey equipment was a multibeam sonar system, which can be used to generate a high resolution, full bottom coverage, bathymetry map. The bathymetry and difference between the two surfaces from the two multibeam bathymetry surveys are shown in Figure 3-1. A full report of the Year 10 bathymetry survey is included in Appendix B.

The Year 10 bathymetry survey has revealed the sediment cap to be relatively stable when compared with the Year 7 survey. While significant compaction of the sediment cap south of the bridge was seen in the comparison between the Year 0 and Year 2 surveys, the cap now appears to be fairly stable. Continued deposition likely due to the flow from the Twin 96-inch outfalls is shown in the southeast area of the waterway in Figure 3-1. Additional areas of lower elevation and possible erosion were observed along the west side of the waterway under the SR 509 Bridge extending along the shoreline and at the base of the pillar as well as along the eastern shoreline from the turning basin up to the Thea Foss marina. Other slight variations in the bottom topography were observed, which are likely due to varying water flows and/or vessel prop wash. The results of the hydrographic survey indicate that the minimum cap thickness performance criterion is being met as provided for in the OMMP and no further evaluation or remediation is warranted at this time.

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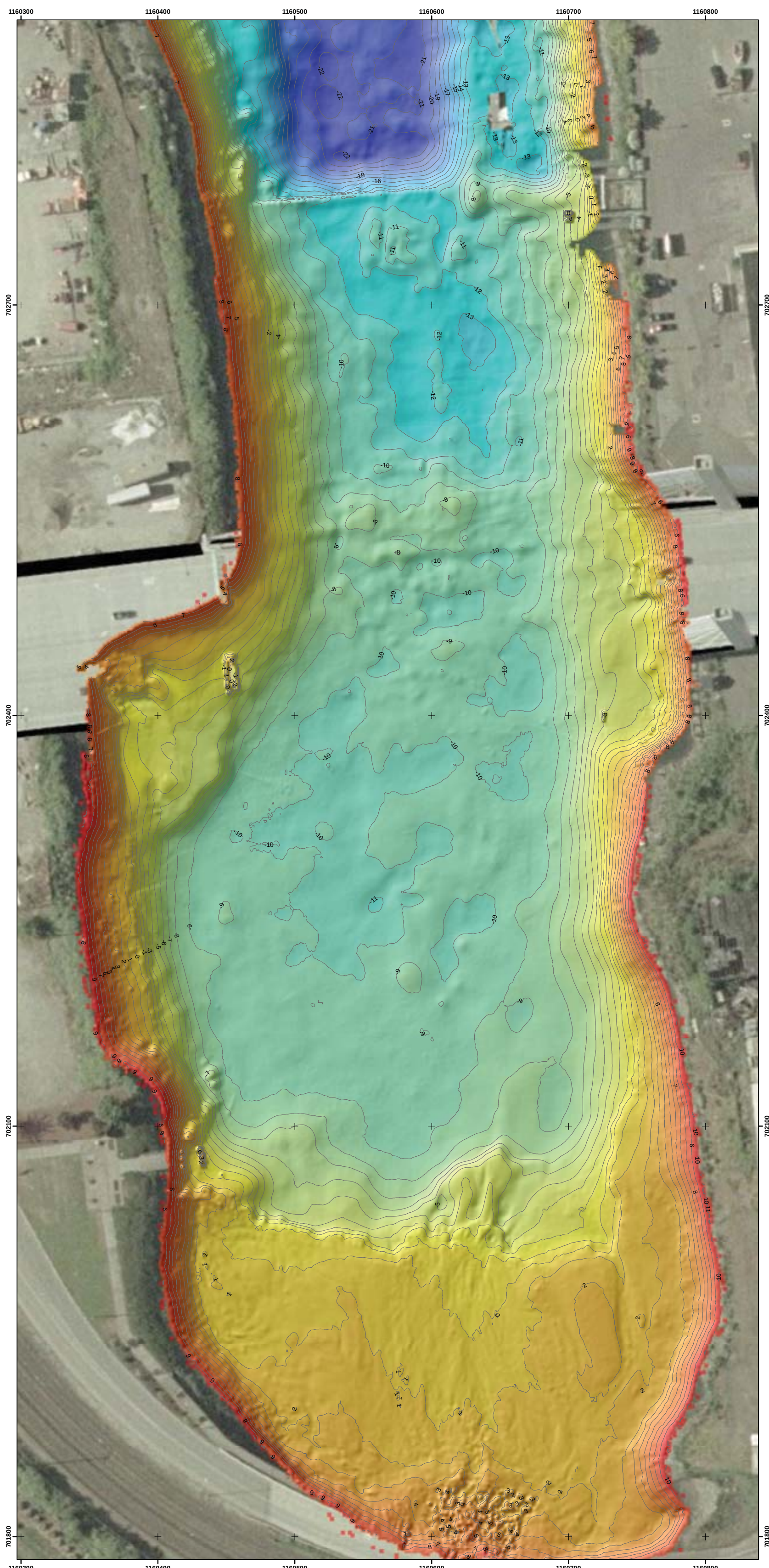
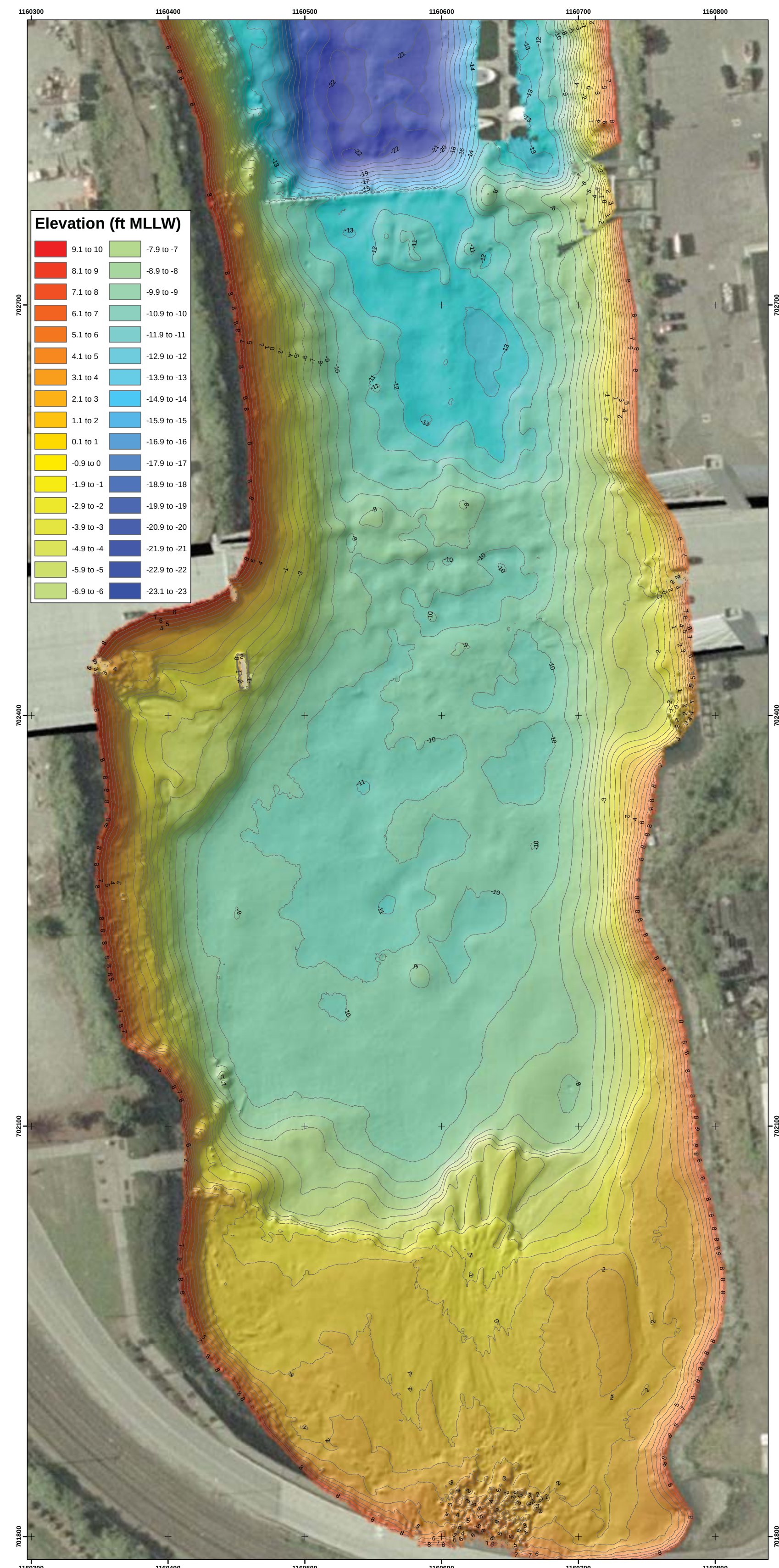
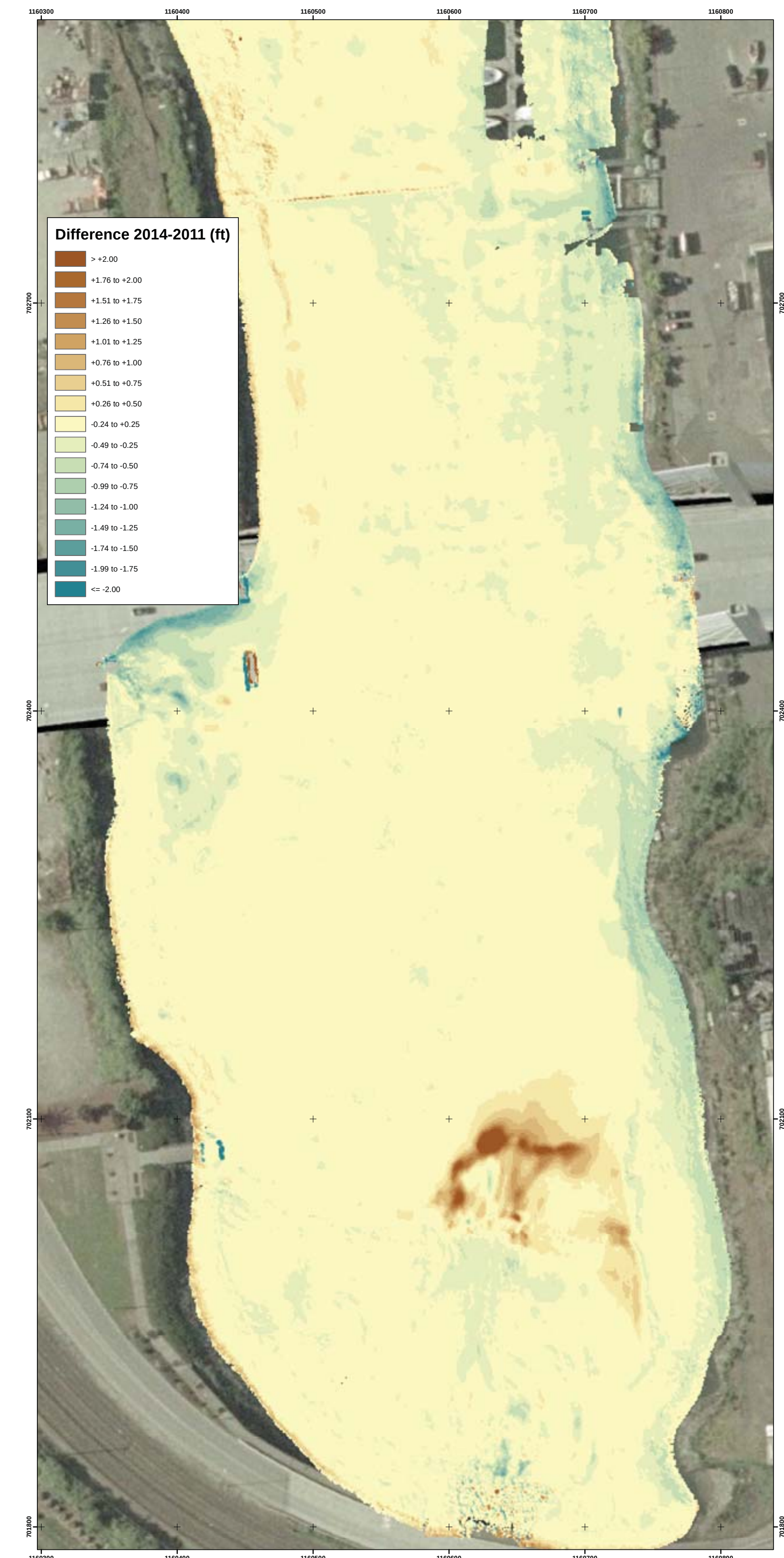


2011 Survey



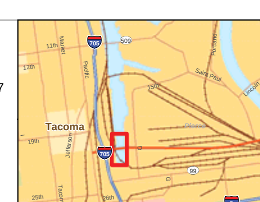
2014 Survey

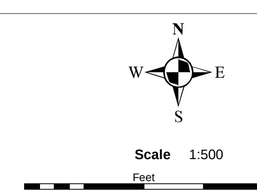


Difference 2014 - 2011

Notes:

1. Multibeam bathymetry data collected using Hypack/Hysweep 2012a.
2. Multibeam bathymetry processing performed using CARIS HIPS and SIPTS v7.1.2, IVS3D Fledermaus v7 and Tetra Tech developed software.
3. Charts and other data products developed using ArcGIS v10.1 and IVS3D Fledermaus.
4. Void in 2011 and 2014 bathymetry near northeast side of dataset due to moored dock sections blocking access.
5. Bathymetric survey conducted April, 2014.





Geodetic Settings - 2014 Survey		Survey Equipment - 2014 Survey	
Datum	NAD83-91	**Multibeam Sonar**	Dual RESON SeaBat 7125 Sv2
Projection	WA-4602 Washington South	**Positioning System**	Applanix POS/MV 320
Horizontal Units	US Survey Feet	**Heading Sensor**	Applanix POS/MV 320/Leica 1230 RTK GPS
Vertical Units	US Survey Feet	**Motion Sensor**	Applanix POS/MV 320/Leica 1230 RTK GPS
Vertical Datum	MLLW (tidal epoch 1960-1978)	**Sound Speed Sensors**	YSI CastAway CTD/Seabird SBE 37
Vertical Control	NAVD88, TPW defined offset (2.85 ft) WSDOT GP27509-117		
Horizontal Control	WSDOT GP27509-117	**Date Surveyed**	29 April 2014

Thea Foss Bathymetry Survey

TetraTech EC, Inc.
19803 North Creek Parkway
Bothell, WA 98011
1 (425) 482 7600

Data Acquisition:	K. Enright, C. Sapusek	Plate 1
Data Processing:	K. Enright, K. Wilson	
Drafted by:	MJ Watson	Sheet: 1 of 1
Reviewed by:	R. Feldpausch	

Document Path: H:\2014_Tt_Thea-Foss\ArcGIS\maps\2014_Tt_Thea-Foss.mxd

4. SEDIMENT SAMPLES

Tetra Tech collected surface sediment samples from OMMP locations (RC/WC-01 through RC/WC-12, RC-13, RC-14, WC-13, and WC-14) and four supplemental locations (S-15, S-17, S-19, and S-24) on behalf of the City. Slope cap samples were collected from OMMP locations (SC-01 through SC-04) at fine-grained areas. Core sediment samples were collected from six locations (WC-01B, WC-04, WC-05, WC-06, WC-10, and WC-12). During the Year 2 OMMP sampling, WC-01B/R-01B was relocated off the scour apron and established 100 feet north of RC/WC-01 at station 77+00 on the sand cap in order to collect a core and benthos grab sample. The 0-10 cm and 0-2 cm surface samples for chemical analysis were collected at RC/WC-01 on the scour protection apron in order to compare with previous OMMP results. The core, SPI, and benthic abundance grab sample were collected at WC-01B/R-01B, where the overlying unconsolidated sediment layer was thick enough to accommodate the samplers. Year 10 sample locations are shown in Figure 2-1.

Summary of Year 10 OMMP Samples

Sample	Full SQO Chemical Analytes[1/]	Partial SQO list (PAHs and phthalates)[2/]	Benthic Community (Archived)	SPI
Waterway Cap Compliance (WC; 0-10 cm grab)	14			
"Top-Down" (RC; 0 to 2 cm grab)		14		
"Bottom-up" (WC; 0 to 7 ft pen. cores)	6			
Slope Cap (SC; composites)	4			
Recolonization Monitoring (WC; R grabs)			4	14
City Cap Area (0 to 10 cm grabs)	4			4

[1/] Semivolatile organic compounds, metals (mercury, zinc, lead), PCBs, DDT compounds, TPH Diesel and motor oil, TOC, and grain size,
[2/] PAHs, BEHP and phthalates, metals (mercury, zinc, lead), PCBs, TPH Diesel and motor oil, TOC, and grain size.
[3/]Three samples were collected from each of the six cores. The bottom of cap material increments were analyzed. TPH Diesel and motor oil analysis was omitted.

4.1 SAMPLING AND ANALYSIS

In all, 60 samples were obtained from 34 locations, including three quality control (QC) duplicate samples and three rinsate samples and were hand delivered to ARI by Jennifer Hawkins of Tetra Tech on behalf of the Utilities. Of the samples collected, 41 sediment samples and three rinsate samples were submitted for analytical testing, the remaining 16 sediment samples were archived by the laboratory. A representative from the City of Tacoma (Amanda McKay, Floyd Snider) was on site from April 28 through 30, 2014 observing and assisting with the collection of surface sediment samples. The City representative collected and delivered compliance sediment samples S-15, S-17, S-19, and S-24 directly to ARI. The Utilities collected duplicate samples from these locations and archived the samples. The City representative was also on site May 2, 2014 for the core logging and sampling activities.

4.1.1 Field Methods

Surface sediment sampling was conducted from a sampling vessel (i.e., *RV Ugle Duckling*) using a 0.25 m^2 stainless-steel Power van Veen grab sampler for the early-warning and waterway cap compliance samples. The grab sampler retrieved relatively undisturbed sediment samples representative of in situ sediment conditions. The sampler and vessel were provided and operated by Tetra Tech.

Surface sediment was collected following Puget Sound Estuary Program (PSEP)/Puget Sound Dredged Disposal Analysis (PSDDA) procedures, including collecting sediment from the center of the sampler, avoiding material that touched the sampler sides, and homogenizing each sample in a stainless-steel bowl using a stainless-steel spoon. Samples at RC/WC-01, RC-13 and RC-14, and SC-01a through SC-04d were collected by hand at low tide using stainless-steel bowls and spoons following PSEP procedures. Sampling equipment was provided by Tetra Tech and was decontaminated in the field. A separate set of decontaminated clean sampling equipment (i.e., stainless-steel bowls and spoons) was used at each location. The grab sampler was decontaminated before and after each sample location with Alconox® and site water. Samples were collected from the homogenized sediment in the stainless-steel bowl.

Sample information was recorded for each sample on log sheets, included in Appendix C. Sample collection data and sediment descriptions are summarized in Appendix D.

Early-warning samples (0 to 2 cm) were collected at 14 OMMP locations (RC/WC-01 through RC/WC-12, RC-13 and RC-14). Waterway cap compliance samples (0 to 10 cm) were collected at 14 OMMP locations (RC/WC-01 through RC/WC-12, WC-13 and WC-14) and at four supplemental locations in the area where additional capping material was placed by the City (S-15, S-17, S-19, and S-24) (Figure 2-1).

Four slope compliance composite samples (0 to 10 cm) were collected from 13 discrete locations (SC-01a through SC-04d) (Figure 2-1) and analyzed for chemicals listed in the sampling and analysis plan (SAP). Slope cap samples were collected by collecting material finer than gravel at three to four discrete locations along the slope cap at low tide with stainless-steel bowls and spoons. The material was collected from the discrete locations, then composited into one sample.

Core sampling was conducted using a vibracore coring device to attempt full penetration of the cap material. The vibracore drove an aluminum tube with a liner into the cap material at all core sampling locations to achieve an acceptable sample within two attempts. Core samples were collected from six OMMP locations (WC-01B, WC-04, WC-05, WC-06, WC-10, and WC-12). Core recovery ranged from 3.0 to 4.4 feet. Cores were visually inspected to identify overlying accumulated sediment, cap material, and underlying native material. Four cores showed two distinct layers: material deposited over the cap material and the cap material. Two cores (WC-05 and WC-10) included native sediment below the cap as shown in Appendix C.2 photographs (i.e., core WC-05 bottom of core catcher in photo P05020156 from 5-2-14).

The cores were logged and divided up into three samples to ensure that the intervals that were analyzed represented cap material. Three samples representing 1-ft increments were collected from core WC-01B (-Ca1, -Ca2, and –Ca3), WC-04 (-Cb1, -Cb2, and –Cb3), WC-05 (-Ca1, -Ca2, and –Ca3), WC-06 (-Ca1, -Ca2, and –Ca3), WC-10 (-Cb1, -Cb2, and –Cb3) and WC-12 (-Cb1, -Cb2, and –Cb3), from top to bottom with the last increment analyzed. The remaining samples were archived.

SPI photos were taken at 18 locations (WC-01B, WC02 through WC14, S-15, S-17, S-19, and S-24). The SPI methods and results are summarized in Section 5. The full SPI report with photos is included in Appendix E.

Benthic infauna community samples were collected at four locations (WC-01B/R-01B, RC/WC-04/R-02, RC/WC-08/R-03, and RC/WC-11/R-04). The field sampling methods used to collect the benthic infauna samples were outlined in the EPA-approved OMMP and the PSEP protocols. These samples were archived for potential future analysis.

Digital pictures were taken during field efforts of sampling and procedures. Pictures and the photo log are included on a CD contained in Appendix C.

To verify the performance of field sampling activities, QC samples were collected for laboratory analysis. Field QC sampling (field duplicates) and rinsate blanks were collected to check sampling and analytical accuracy and precision. Three field duplicates were collected: one for the early warning samples at RC-14, one duplicate for the compliance samples at WC-13 and one for the core samples at RC/WC-04. Field duplicates were sampled from the same stainless-steel bowl as the original sample. Three rinsate blanks were collected to represent collection of the RC, WC, and core samples.

4.1.2 Chemistry Analysis

All chemical analyses were conducted at ARI. Raleigh Farlow, of DMD, Inc., oversaw and resolved any quality assurance/quality control (QA/QC) issues. Analyses included full and partial lists of semivolatile organic compounds, (i.e., partial list included PAHs and BEHP only), metals (lead, mercury, zinc), PCBs, p,p'-Dichlorodiphenyltrichloroethane (DDT) compounds, total organic carbon, total petroleum hydrocarbons, and grain size. Three field duplicates were collected at the required frequency of 1 per 20 samples: one top-down sample (RC; 0 to 2 cm sample) was collected as a duplicate of RC-14, one compliance sample (WC; 0 to 10 cm sample) was collected as a duplicate of WC-13, and one core sample was collected as a duplicate of WC-04-Ca3.

4.1.3 Data Validation of Chemistry Results

Raleigh Farlow of DMD, Inc. validated the Utilities' chemistry data results from ARI. The validation report is included in Appendix F. This analytical/validation team has been responsible for the sediment analyses since implementation of the Utilities' OMMP in April 2004. Consistent analytical protocols and the same instruments have been used from Year 0 to the present. For the Year 10 OMMP analyses, DMD completed the equivalent of a QA-1 review.

Sample results reported in Appendices F and G are determined to be in general compliance with method and quality assurance project plan (QAPP) requirements. Some deviations from specified performance goals are associated with matrix effects from contaminated samples. Sample extracts/digestates were rerun/reanalyzed when QC performance goals were not initially met. Continuing deviations in subsequent analyses were identified and flagged, generally resulting in identifying associated values as estimates with the "J" qualifier code. All reported data for Year 10 OMMP results listed in Appendices F and G are considered usable for the intended purposes of the project. The laboratory data reports are provided in Appendix H (included on CD).

4.2 SEDIMENT SAMPLE DESCRIPTIONS

Visual inspection of surface samples indicates that fine-grained material has been deposited on top of the Utilities' cap since completion of remedial construction. Note, in previous monitoring events, the Utilities reported the measured thickness of fine-grained material (consisting of silt to sandy silt) deposisted over the cap at each sample location, while the City reported the "silt thickness" deposited over the cap. For the Year 7 and Year 10 monitoring events, the Utilites and City representatives worked together and reported the same estimate of accumulated sediment over the original cap material (consistent with all previous Utilities reporting). Appendix D summarizes the locations and descriptions for each grab and core sample collected.

Representative photos are included in Appendix C.2 (on CD).

4.2.1 Compliance Samples

Compliance samples include the top 0 to 10 cm surface sediment from all waterway cap compliance (WC) locations and supplemental (S) locations from the area of additional capping.

Compliance samples were collected to monitor the area of additional capping material north of SR 509 Bridge and to evaluate contaminant concentration trends in the areas beneath and south of the SR 509 Bridge. Year 10 compliance samples were not analyzed for grain size by the City; as a result, a comparison of the percent fines in the compliance samples is not available for those samples.

4.2.1.1 Area South of the Bridge

Eleven samples consisting of the top 0 to 10 cm were collected at OMMP locations in the waterway cap beneath and south of the SR 509 Bridge (RC/WC-01 to RC/WC-09, WC-13, and WC-14). The compliance samples generally consisted of dark/olive gray fine sandy silt over silty sand or sand (see Appendix C.2 Sample Photos and Appendix D Sediment Descriptions). The portion of silt versus silty sand or sand in the samples varied depending on the thickness of the accumulated deposits. A silt layer of light brown color overlying a dark/olive gray silt layer was observed at most locations. Benthic fauna and flora (i.e., worms, shell fragments and/or kelp) were observed at all locations.

Descriptions and thickness of material deposited over the cap were documented on each of the log sheets included in Appendix C.1 and summarized in Appendix D. Oily fuel-like sheen spots on the overlying water, as observed in previous years, were not observed at any of the waterway cap compliance locations in Year 10. Small sheen spots were observed on the sediment in the van Veen sampler or bowl at locations RC/WC-04, RC-13, and RC-14. The thickness of material deposited over the cap ranged from 2 cm to over 26 cm throughout the waterway cap area (Figure 4-1). The material deposited over the cap material typically consisted of soft silt that transitioned to a zone of silty sand above the underlying cap material, although in several locations (i.e., RC/WC-02, and RC/WC-04 to RC/WC-07) a distinct layer of coarse sand cap material was not encountered due to the thickness of the deposited material. The deposition of material over the cap material was greatest in the central areas just south of the SR 509 Bridge and north of the scour protection apron with greater than 26 cm of deposition at location RC/WC--02.

Based on the stratigraphy of the grab samples, it is evident that the material has accumulated on top of the sand cap and is increased in depth from Year 7 at eight locations south of the SR 509 Bridge (RC/WC-01, RC/WC-02, RC/WC-04, RC/WC-05, RC/WC-07 through RC/WC-09 and WC-14). The most likely source of the material deposited over the cap is from the stormwater outfalls. The percent fines ranged from 11% at location

RC/WC-03 to 71% at location RC/WC-06, averaging 49%. The high percentage of fines is an indicator of sedimentation occurring south of the bridge.

Two of the four composite slope cap samples were collected from the top 0 to 10 cm south of the SR 509 Bridge (SC-02 and SC-03) (see Appendix C.2 Sample Photos and Appendix D Sediment Descriptions). The slope cap areas do not generally accumulate much silt, however, the material deposited over the slope cap in the area south of the bridge ranged from 1 cm (SC-02) up to 10 cm (SC-03**)**. The material over the cap generally consists of light to dark brown sandy silt overlying gray to black silt intermixed with cobbles, pebbles, and sand cap material (medium to coarse gray or brown sand). Benthic fauna and flora (i.e., worms and/or mussels and plant debris) were observed at both locations. The percent fines ranged from 29.7 % at SC-02 to 40.9 % at SC-03, increasing from Year 7, indicating there is sedimentation of fines occurring on the slope cap, although the depth of deposition did not increase compared with Year 7 at SC-02 or SC-03.

4.2.1.2 Area North of the Bridge

Seven compliance samples were collected in the area north of the SR 509 Bridge including waterway cap compliance (WC) samples from the area where, in December 2005, additional capping material was placed by the City (OMMP locations RC/WC-10, RC/WC-11, RC/WC-12) and supplemental locations (S-15, S-17, S-19, and S-24) [see Appendix C.2 Sample Photos and Appendix D Sediment Descriptions]. Compliance samples in the area north of the bridge are derived from a combination of both capping material and accumulated sediment. These compliance samples generally consisted of dark gray sandy silt overlying sand cap material. No sheen spots on the water, noted during previous years, were observed in Year 10 OMMP. There was one sheen spot observed in the sediment at RC/WC-11 that was approximately 3 cm in diameter and was observed at 4 cm below the sediment surface in the van veen grab sampler. The thickness of fined-grained material ranged from 1 to 15 cm of material deposited over the cap (Figure 4-1). At 4 locations north of the bridge, (RC/WC-11, RC/WC-12 and S-17, and S-19), the thickness of overlying material had increased from Year 7. At three locations RC/WC-10, S-15, and S-24 the thickness of material deposited over the cap had decreased from Year 7. Benthic fauna (i.e., worms or mussel) were observed at all locations north of the bridge including live crabs at RC/WC-12.

Locations WC-10, S-15, and S-19 are situated north of the SR 509 Bridge in the channel west of the Foss Landing Marina's docks. The waterway currents, boat traffic, and associated prop wash through the mid-portion of the channel may have an impact on the amount of sediment deposited at these locations. As seen in Figure 4-1, the thickness of the deposited sediment has remained below 10 cm at all three locations through the Year 10 monitoring.

Two of the four composite slope cap samples were collected from the top 0 to 10 cm north of the SR 509 Bridge (SC-01 and SC-04) (see Appendix C.2 Sample Photos and Appendix D Sediment Descriptions). The slope cap areas do not generally accumulate much silt. The material deposited over the slope cap in the area north of the bridge ranged from 1 cm (SC-01) to 2 cm (SC-04). The material over the cap generally consists of a thin layer of light brown silty sand overlying dark gray silty sand intermixed with cobbles, pebbles, and sand cap material (coarse gray or brown sand). Benthic fauna (i.e., barnacles and/or mussels) were observed at both locations. The percent fines ranged from 10% at SC-01 to 17 % at SC-04 indicating there is little sedimentation occurring on the slope cap in these areas.

4.2.2 Recontamination Samples

Recontamination samples include the top-down surface (0 to 2 cm) grabs from all RC locations as well as the bottom-up core samples.

4.2.2.1 Early-Warning Samples (0 to 2 cm)

Early-warning samples were obtained from 14 locations within the Utilities' Work Area. Sampling occurred at OMMP locations RC-1 to RC-14 (Figure 2-1). The samples generally consisted of dark gray fine sandy silt (see Appendix C.2 Sample Photos and Appendix D Sediment Descriptions). The location with the lowest percentage of fines for early warning samples was RC/WC-10 located in the main part of the channel north of the SR 509 Bridge, with a value of 17% for the 0 to 2 cm sample. The sample contained a surficial layer of brown silt over dark gray sandy silt over medium to coarse sand. The greatest percentage of fines was reported at location RC/WC-06, south of the bridge along the western shoreline with 74% fines. The thickness of fine-grained material deposited over the cap at these locations is the same as reported for the compliance samples and ranged from 1 cm to greater than 26 cm throughout the waterway cap area (Figure 4-1).

4.2.2.2 Core Samples

Cores were collected at six OMMP locations (WC-01B, WC-04, WC-05, WC-06, WC-10, and WC-12). The cores contained approximately 0.4 feet (10 cm; WC-06) to 1 feet (30 cm; RC/WC-05) of dark gray fine sandy silt deposited over the sand cap. The sand cap consisted of olive fine to coarse sand (see Appendix C.2 Sample Photos and Appendix D Sediment Descriptions). At core locations WC-05 and WC-10 a distinct color change from olive or dark gray to black was observed in the bottom increments of the sand cap. Lenses of black silt were observed in brown silt in the core collected at WC-01B at 1.4 – 1.6 feet. Dark gray sand was observed in cores from locations WC-04 (at 2.8 ft), WC-05 (at 2.1 ft and dispersed from 2.7-3.7 ft), and WC-06 (1.1 ft) in the middle of olive sand cap material. The observed cap thicknesses ranged from 2.3 feet at WC-01B to 3.7 feet at WC-10.

The core logs and grain size analyses indicate that the average cap thickness is approximately 2.7 feet within the Utilities Work area. At most core locations, the actual cap thickness is thicker than three feet.

4.3 CHEMICAL QUALITY

The following discussion summarizes the analytical results of sediment samples collected in April 2014 and compares those results to the SQOs. Table 4-1 includes results for parameters that exceed the SQOs in one or more Year 10 samples. Table 4-1 also includes the exceedance factor (the ratio of the result to the SQO) for results that exceed the SQO (EF of 1 or greater, as results that are equal to the SQO are considered exceedances). Parameters not included in Table 4-1 did not exceed the SQOs in any Year 10 samples at any location. Figures 4-2 to 4-7 present concentrations of selected contaminants for compliance samples. Figures 4-8 to 4-13 present concentrations of selected contaminants for recontamination samples and Figures 4-15 and 4-16 present concentrations of selected contaminants for core samples.

Appendix G includes all sediment sample results from all monitoring years with detected results that exceed the SQOs in bold font. Exceedances include concentrations rounded to two significant figures that are equal to the SQO.

4.3.1 Compliance Samples

4.3.1.1 South of the Bridge

The waterway cap compliance samples (0 to 10 cm) from the WC locations beneath and south of the SR 509 Bridge were analyzed for grain size, TOC, metals, TPH-Dx, SVOCs, DDT compounds, and PCB Aroclors. The percent fines ranged from 11% at location RC/WC-03 south of the bridge but north of the scour apron to 71% at location WC-06 south of the SR 509 Bridge, averaging 49%. The high percentage of fines is an indicator of sedimentation occurring south of the bridge.

BEHP concentrations were higher than the SQO (1,300 μg/kg) in all compliance samples south of the SR 509 Bridge in Year 10 except for WC-03. In addition, for detected compounds, SQOs were exceeded for individual PAHs, total HPAH, and zinc at location WC-02; for individual PAHs at location WC-06; for phenol at WC-02, WC-05, and WC-06; for 2-methylphenol at WC-07; for Benzyl Alcohol at all locations south of the bridge except for WC-03; and for benzoic acid at locations WC-01, WC-02, WC-05, WC-06, and WC-07. SQOs were also exceeded based on elevated detection limits for benzoic acid at WC-09 and

WC-14; and 2-methylphenol at all locations south of the bridge except for WC-03 (WC-07 had a detected concentration above the SQO) (see Table 4-1).

The maximum exceedance factor (EF) was 6.3 for BEHP at location WC-02. The greatest frequency of maximum EFs were detected in the sample from location WC-02 located in the southeast corner of the Head of the Waterway. This is a depositional area adjacent to the scour protection apron from the Twin 96-inch outfalls. SQO EFs for WC-02 ranged between 1.0 (zinc and pyrene) and 6.3 (BEHP). The EF for each SQO exceedance is included in Table 4-1.

Slope cap samples (0 to 10 cm) were analyzed for grain size, TOC, metals, TPH-Dx, SVOCs, DDT compounds, and PCB Aroclors. Samples SC-02 and SC-03 exceeded the SQO for BEHP with EFs of 1.8 and 2.8, respectively. Sample SC-03 was found to be the only south of the bridge slope cap sample to exceed an SQO for benzoic acid and benzyl alcohol, with a detection limit above the SQO for 2-methylphenol (Table 4-1). SC-03 is a slope cap composite sample and is located south of the SR 509 Bridge on the southeast end of the waterway adjacent to RC/WC-02.

4.3.1.2 North of the Bridge

The waterway cap compliance samples (0 to 10 cm) from the WC locations beneath and north of the SR 509 Bridge were analyzed for grain size, TOC, metals, TPH-Dx, SVOCs, DDT compounds, and PCB Aroclors. In Year 10, the percentage of fines ranged from 9% at WC-10 to 74% at WC-11, averaging 46% fines. Compliance samples in the area north of the bridge are derived from a combination of both capping material and accumulated sediment. The average fines content in this area increased from past monitoring events (i.e., 6.7 % in 2006, 5.9% in 2007, 18% in 2008, and 42 % in 2011) to approximately 46% in the same suite of samples, indicating that additional deposition of fine-grained sediment has occurred.

In December 2004, after Year 0 monitoring, the City remediated the area north of the bridge by placing additional capping material to address recontamination from dredging activities. Sampling results for compliance samples collected from this area in Year 2 and in Year 3 did not contain any contaminants that exceeded their SQOs. In Years 4 and 5, five of the seven samples collected from the compliance sampling interval in this area contained BEHP at concentrations exceeding its SQO of 1,300 µg/kg as a result of the increasing thickness of sediment above the cap. In Years 7 and 10, six of the seven samples in this area contained BEHP concentrations that exceeded the SQO. The EF for BEHP ranged from 0.4 EF (WC-10) to 5 EF (WC-11) (see Table 4-1).

The percent fines content of the slope cap samples ranged from 10% at SC-01 to 17% at SC-04 indicating the samples were primarily from capping material. No contaminants at either SC-01 or SC-04 exceeded SQOs in Year 10.

4.3.2 Recontamination

In general, the concentrations of contaminants in the early-warning samples were higher than in the compliance samples for Year 10 sampling.

4.3.2.1 Early-Warning Samples

South of the Bridge

The early-warning "top down" (0 to 2 cm) sediment samples south of the SR 509 bridge were analyzed for partial SVOCs (PAHs and BEHP), metals (lead, mercury, and zinc), TPH-Dx, PCB Aroclors, TOC, total solids, and grain size. All early-warning samples south of the SR 509 Bridge (RC-01 through RC-09, RC-13, and RC-14) contained BEHP concentrations above the SQO of 1,300 μg/kg. BEHP concentrations ranged from 1,700 μg/kg (1.3 EF) at RC-03 to 8,300 μg/kg (6.4 EF) at RC-02. The early-warning samples collected at locations RC-02, RC-04, RC-05, and RC -09 contained concentrations of individual PAHs that exceeded their SQOs. The exceedance factor for each SQO exceedance is included in Table 4-1.

North of the Bridge

The early-warning "top down" (0 to 2 cm) sediment samples north of the SR 509 Bridge were analyzed for partial SVOCs (PAHs and BEHP), metals (lead, mercury, and zinc), TPH-Dx, PCB Aroclors, TOC, total solids, and grain size. BEHP and benzo(g,h.i)perylene were the only parameters that exceeded its SQO for early-warning samples north of the bridge. Two early-warning samples north of the bridge (RC-11, and RC-12) contained BEHP concentrations above the SQO of 1,300 μg/kg. BEHP concentrations ranged from 880 μg/kg (0.7 EF) at RC-10 to 6,600 μg/kg (5.1 EF) at RC-11. The exceedance factor for each SQO exceedance is included in Table 4-1.

4.3.2.2 Core Samples

All intervals analyzed from the six core samples were analyzed for grain size, TOC, metals, SVOCs, DDT compounds, and PCB Aroclors. The percentage of fines content ranged from 7% at WC-05 to 25% at WC-01. All analyzed core intervals contained concentrations well below the SQOs. Therefore, the remaining core samples were not analyzed. Low concentrations of PAHs were found in the cores collected at WC-01B, WC-05, and WC-12. Low concentrations of BEHP were detected in the WC-05 and WC-12 core samples collected from a depth interval of 2.7-3.7 feet and 1.6-2.4 feet (bottom interval of core), respectively. The log for the core at WC-05 indicated that the bottom portion of this sample penetrated into underlying contaminated sediment that lies beneath the sand cap. The log for the core at WC-12 indicated dark gray medium sand with plant debris and sulfur odor, representing a transition between the cap material and some of the underlying native material, which is the likely source of the detected contaminants. The core at WC-10 contained black sand in the core catcher, also indicating a transition between the cap material and some of the underlying native material.

4.3.3 Contaminant Distribution and Trends

Since the Utilities' cap was installed, sediment has accumulated on the top of cap. Table 4-2 includes the thicknesses of material deposited on top of the cap between completion of the remedy in February 2004 and the Year 10 OMMP monitoring in April 2014. By April 2014, fine-grained sediment was measured at greater than 15 cm throughout most of the small boat turning basin south of the bridge as illustrated on Figure 4-1. At location WC-02, fine-grained sediment was measured at more than 26 cm. Lesser thicknesses (1 to 20 cm) were present within the area under and north of the SR-509 Bridge that was capped by the City in December 2005. During the Year 10 monitoring, the greatest increase in accumulated sediment was at station RC/WC-11 between Year 7 (2011) and Year 10 (2014), where the increase in thickness was approximately 9 cm. The accumulation of deposited fine grained material on the cap has been variable between locations and within the years as shown in Table 4-2.

4.3.3.1 Compliance Samples

Compliance sample concentrations are summarized for BEHP, HPAH, LPAH, Total PCBs, lead, and zinc in Tables 4-3 through 4-8. Tables include data from the baseline OMMP monitoring in Year 0 OMMP (April 2004) through Year 10 OMMP (April 2014). The concentrations and extent of SQO exceedances for Year 10 data are depicted in Figures 4-2 through 4-7.

Compliance sample average concentrations of BEHP within the turning basin south of the SR509 Bridge (WC-01 through WC-07) increased between Year 5 (5,500 µg/kg) to Year 7 (7,300 µg/kg), and then decreased in Year 10 (5,000 µg/kg). The average concentration of HPAH was measured at approximately14,000 µg/kg in Year 5, 13,914 µg/kg in Year 7, and 10,470 µg/kg in Year 10. The change in concentrations represents a decrease of approximately 32% for BEHP between Year 7 and Year 10 with values similar to those found in Year 5, but an increase of 1,756% from Year 2 (the year after additional capping performed by the City). The HPAH concentrations decreased approximately 25% from Year 7, and increased 1,593% from Year 2 to Year 10.

Turning Basin South of the Bridge Compliance Sample Averages		
OMMP	BEHP	HPAH
Year 0 (2004)	180 µg/kg	386 µg/kg
Year 1 (2005)	1,307 µg/kg	4,717 µg/kg
Year 2 (2006)	3, 700 µg/kg	6,171 µg/kg
Year 3 (2007)	3,100 µg/kg	8,714 µg/kg
Year 4 (2008)	4,471 µg/kg	10,771 µg/kg
Year 5 (2009)	5,500 µg/kg	14,000 µg/kg
Year 7 (2011)	7,300 ug/kg	13,914 ug/kg
Year 10 (2014)	5,000 ug/kg	10,471 ug/kg

Compliance sample average concentrations of BEHP and HPAH north of the SR509 Bridge (WC-10 through WC-12, S-15, S-17, S-19, and S-24) increased slightly between Year 7 and Year 10. The average concentration of BEHP increased by 25% from 2,636 µg/kg to 3,297 µg/kg and the average concentrations of HPAH increased by 2% from 6,186 µg/kg to 6,327 µg/kg. Dredging by the City north of the Utilities' Work Area occurred after the Year 0 monitoring and average concentrations of BEHP and HPAH increased sharply between Year 0 and Year 1. Additional cap placement was conducted by the City in the Utilities' Work Area north of the SR 509 Bridge after Year 1 and the average concentrations of BEHP and HPAH decreased sharply in Year 2. It is important to note that the compliance sampling results demonstrate that it took less than 2.5 years for the area of additional cap placement to become recontaminated to a level exceeding the SQOs, although the rate of increase has slowed within the last five years.

North of the Bridge Compliance Sample Averages		
OMMP	BEHP	HPAH
Year 0 (2004)	820 µg/kg	5,231 µg/kg
Year 1 (2005)	2,264 µg/kg	17,333 µg/kg
Year 2 (2006)	711 µg/kg	1,180 µg/kg
Year 3 (2007)	529 µg/kg	1,133 µg/kg
Year 4 (2008)	1,806 µg/kg	4,129 µg/kg
Year 5 (2009)	3,200 µg/kg	7,200 µg/kg
Year 7 (2011)	2,636 ug/kg	6,186 ug/kg
Year 10 (2014)	3,297 ug/kg	6,329 ug/kg

4.3.3.2 Recontamination/Early-Warning Samples

Recontamination sample concentrations are summarized for BEHP, HPAH, LPAH, Total PCBs, lead, and zinc in Tables 4-3 through 4-8. Tables include data from the baseline OMMP monitoring in Year 0 (April 2004) through Year 10 (April 2014). The concentrations and extent of SQO exceedances for Year 10 are depicted in Figures 4-8 through 4-13.

Higher concentrations of contaminants are associated with the fine-grained material. The early warning samples tended to have higher concentrations than the compliance samples. In Year 10, zinc, individual HPAHs and BEHP were detected at concentrations above the SQOs in one or more samples. BEHP was above it's SQO in every early warning sampling location in the Utilities' Work Area except for RC-10 where there was less fines accumulated on the surface of the cap. Exceedance factors ranged from 0.7 EF at RC-10 to 6.4 EF at RC-02 for BEHP, located south of the SR509 Bridge on east side of the turning basin. The concentrations for selected contaminants in early warning samples are depicted in Figures 4-8 through 4-13.

Utilities Work Area

Figure 4-14 illustrates average concentrations in early warning samples collected within the Utilities Work Area (RC-01 to RC-14) from Year 0 to Year 10. Interpretation of the data needs to consider the impacts of the dredging recontamination that occurred in 2004. Over the past ten years, the highest average concentrations of lead, mercury, LPAH, HPAH, and PCBs in the Utilities' Work Area were found in Year 1 after the City's dredging recontamination. Concentrations of zinc and lube-oil range hydrocarbons were higher in Year 1 as compared to Year 2. BEHP was detected at similar concentrations in Year 1 and Year 2 and does not appear to have been significantly impacted by the 2005 dredging.

Between Year 2 and Year 7, annual average concentrations of lead and zinc in early warning samples have steadily increased with a slight decrease in Year 10. Average lead and zinc concentrations remain below their respective SQOs. Annual average concentrations of mercury, LPAHs, HPAHs, and BEHP have fluctuated within a relatively limited range within the Utilities Work Area as a whole. HPAH average concentrations were hightest in Year 4 and Year 7. The average HPAH concentration decreased to 9,750 ug/kg in Year 10 from 12,821 ug/kg in Year 7. BEHP average concentrations have increased since Year 5 levels. Year 10 BEHP concentrations ranged between 880 ug/kg and 8,300 ug/kg. Average concentrations of PCBs were relatively stable between Year 2 and Year 5, increased in Year 7, and decreased slightly in Year 10, but are still well below the PCB SQO (Tables 4-3 to 4-8). Lube-oil range hydrocarbons had a maximum average concentration in Year 5, with a decrease in Year 7 with a minor increase in Year 10. There is no SQO for lube-oil range hydrocarbons.

Turning Basin (RC-01 to RC-07)

Average concentrations in early-warning samples collected within the turning basin (RC-01 to RC-07) from Year 0 to Year 10 showed similar trends as discussed for the entire Utilities Work Area. Constituent concentrations of lead, mercury, LPAH, HPAH, and PCBs in samples from the turning basin increased in Year 1 and then declined in Year 2.

Between Year 2 and Year 10, average concentrations of lead, mercuy, and zinc have fluctuated within a relatively limited range within the turning basin (Tables 4-7 and 4-8, respectively). Between Year 7 and Year 10, annual average concentrations of BEHP, HPAH, and LPAH in early warning samples within the turning basin decreased (Tables 4-3 to 4-5). In the turning basin, average BEHP concentrations peaked in Year 7 with an average of 6,800 ug/kg, but decreased in Year 10 with an average of 5,943 ug/kg. BEHP concentrations ranged from 1,700 ug/kg to 8,300 ug/kg in Year 10. HPAH concentrations ranged between 3,200 ug/kg and 13,000 ug/kg in Year 10. Average PCB and lube-oil concentrations increased slightly in Year 10. Additional discussions of contaminant trends are included in Appendix I.

4.3.3.3 Core Samples

Sediment cores were collected to evaluate whether bottom-up migration of contamination into the sediment cap had occurred. The cores extended through most of the cap, and into the under lying contaminated sediment at two locations (WC-05 and WC-10). Samples collected from the lowest portion of the sand cap were submitted for laboratory analysis of the contaminants of concern. Laboratory analysis of the core samples for BEHP, HPAH, LPAH, Total PCBs, lead, and zinc analyses are summarized in Tables 4-3 through 4-8. Tables include data from the baseline OMMP monitoring in Year 0 OMMP (April 2004) through Year 10 OMMP (April 2014). The concentrations and extent of SQO exceedances for BEHP in Year 10 is depicted in Figure 4-15 and is similarly depicted for HPAH in Figure 4-16.

Grain size analyses confirmed that samples of the sand cap were analyzed. Six of the seven core samples (including the duplicate) analyzed had a fines content less than 15%. One sample (WC-01B-Ca3) had a fines content of approximately 25% indicating the sample likely included some of the underlying contaminated sediment. The log of the WC-01B core indicates the sample was of a "*transition*" material between the granular cap and underlying contaminated sediment.

No constituent concentrations exceeded an SQO in any of the intervals analyzed from the six core samples. The most frequent constituent detections and highest concentrations were for the sample from core WC-12 where a mixed fine-sediment/cap material was submitted to the laboratory for analysis. The non-detect, infrequent detections, and low sediment concentrations of the lower capping materials indicate that there is no evidence of bottom-up recontamination and that the cap is performing as designed.

Table 4-1. SQO Exceedances Year 10 OMMP April 2014

Location	Sample Date	Depth Below Mudline	Sample	Zinc		2-Methylphenol		Phenol		Benzyl Alcohol		Benzoic Acid		Phenanthrene		Fluoranthene		Pyrene	
				410		63		420		73		650		1500		2500		3300	
RC/WC-01	4/30/2014	0-10 cm	Y10-WC01-S	212	0.5	**69 U**	1.1	340	0.8	**280**	3.8	**1000**	1.5	850	0.6	1900	0.8	1600	0.5
RC/WC-02	4/29/2014	0-10 cm	Y10-WC02-S	**428**	1.0	**150 U**	2.4	**420**	1.0	**380 J**	5.2	**1900 J**	2.9	**1800**	1.2	**3700**	1.5	**3300**	1.0
RC/WC-03	4/30/2014	0-10 cm	Y10-WC03-S	79	0.2	56 U	0.9	65	0.2	56 U	0.8	250 J	0.4	160	0.1	360	0.1	350	0.1
RC/WC-04/R-02	4/29/2014	0-10 cm	Y10-WC04-S	237	0.6	**82 U**	1.3	280	0.7	**130 J**	1.8	490 J	0.8	920	0.6	1900	0.8	2000	0.6
RC/WC-05	4/30/2014	0-10 cm	Y10-WC05-S	347	0.8	**110 U**	1.7	**420**	1.0	**310**	4.2	**1400**	2.2	850	0.6	2000	0.8	2000	0.6
RC/WC-06	4/30/2014	0-10 cm	Y10-WC06-S	315	0.8	**97 U**	1.5	**470**	1.1	**160**	2.2	**1400**	2.2	880	0.6	1900	0.8	2100	0.6
RC/WC-07	4/30/2014	0-10 cm	Y10-WC07-S	301	0.7	**85**	1.3	380	0.9	**180**	2.5	**1300**	2.0	1200	0.8	2200	0.9	2200	0.7
RC/WC-08/R-03	4/29/2014	0-10 cm	Y10-WC08-S	291	0.7	**99 U**	1.6	370	0.9	**89 J**	1.2	320 J	0.5	1200	0.8	2200	0.9	2400	0.7
RC/WC-09	4/29/2014	0-10 cm	Y10-WC09-S	311	0.8	**110 U**	1.7	230	0.5	**110 J**	1.5	**1100 U**	1.7	1100	0.7	2000	0.8	2100	0.6
RC/WC-10	4/30/2014	0-10 cm	Y10-WC10-S	64	0.2	56 U	0.9	56 U	0.1	56 U	0.8	560 U	0.9	140	0.1	240	0.1	260	0.1
RC/WC-11/R-04	4/29/2014	0-10 cm	Y10-WC11-S	317	0.8	**130 U**	2.1	360	0.9	**150 J**	2.1	410 J	0.6	1200	0.8	1900	0.8	2600	0.8
RC/WC-12	4/29/2014	0-10 cm	Y10-WC12-S	187	0.5	**67 U**	1.1	220	0.5	**88 J**	1.2	**670 U**	1.0	1000	0.7	1400	0.6	1800	0.5
SC-01	4/30/2014	0-10 cm	Y10-SC01-S	101	0.2	60 U	1	60 U	0.1	60 U	0.8	600 U	0.9	180	0.1	380	0.2	340	0.1
SC-02	4/30/2014	0-10 cm	Y10-SC02-S	231	0.6	62 U	1	160	0.4	65	0.9	220 J	0.3	260	0.2	670	0.3	640	0.2
SC-03	4/30/2014	0-10 cm	Y10-SC03-S	273	0.7	**78 U**	1.2	220	0.5	**170**	2.3	**740 J**	1.1	710	0.5	1800	0.7	1600	0.5
SC-04	4/30/2014	0-10 cm	Y10-SC04-S	122	0.3	58 U	0.9	100	0.2	58	0.8	190 J	0.3	220	0.1	460	0.2	430	0.1
WC-13	4/29/2014	0-10 cm	Y10-WC13-S	247	0.6	**92 U**	1.5	340	0.8	**130 J**	1.8	310 J	0.5	830	0.6	1600	0.6	1700	0.5
WC-15 (dup of WC-13)	4/29/2014	0-10 cm	Y10-WC15-SD	252	0.6	**93 U**	1.5	290	0.7	**130 J**	1.8	290 J	0.4	750	0.5	1400	0.6	1400	0.4
WC-14	4/29/2014	0-10 cm	Y10-WC14-S	211	0.5	**77 U**	1.2	150	0.4	**85 J**	1.2	**770 U**	1.2	560	0.4	1100	0.4	1200	0.4
S-15	4/28/2014	0-10 cm	S-15-0280414											170	0.1	280	0.1	400	0.1
S-17	4/28/2014	0-10 cm	S-17-0280414											820	0.5	1400	0.6	1900	0.6
S-19	4/28/2014	0-10 cm	S-19-0280414											860	0.6	1000	0.4	1500	0.5
S-19 (duplicate)	4/28/2014	0-10 cm	S-19-0280414-DUP											650	0.4	940	0.4	1500	0.5
S-24	4/28/2014	0-10 cm	S-24-0280414											290	0.2	630	0.3	730	0.2
RC/WC-01	4/30/2014	0 - 2 cm	Y10-RC01-S	275	0.7									880	0.6	1600	0.6	1500	0.5
RC/WC-02	4/29/2014	0 - 2 cm	Y10-RC02-S	**470**	1.1									1300	0.9	2200	0.9	2100	0.6
RC/WC-03	4/30/2014	0 - 2 cm	Y10-RC03-S	104	0.3									280	0.2	470	0.2	470	0.1
RC/WC-04/R-02	4/29/2014	0 - 2 cm	Y10-RC04-S	342	0.8									1100	0.7	2200	0.9	2300	0.7
RC/WC-05	4/30/2014	0 - 2 cm	Y10-RC05-S	375	0.9									930	0.6	1800	0.7	1800	0.5
RC/WC-06	4/30/2014	0 - 2 cm	Y10-RC06-S	358	0.9									970	0.6	2200	0.9	2300	0.7
RC/WC-07	4/30/2014	0 - 2 cm	Y10-RC07-S	353	0.9									760	0.5	1600	0.6	1800	0.5
RC/WC-08/R-03	4/29/2014	0 - 2 cm	Y10-RC08-S	288	0.7									710	0.5	1500	0.6	1500	0.5
RC/WC-09	4/29/2014	0 - 2 cm	Y10-RC09-S	293	0.7									800	0.5	1500	0.6	1600	0.5
RC/WC-10	4/30/2014	0 - 2 cm	Y10-RC10-S	87	0.2									190	0.1	360	0.1	380	0.1
RC/WC-11/R-04	4/29/2014	0 - 2 cm	Y10-RC11-S	332	0.8									930	0.6	1900	0.8	2600	0.8
RC/WC-12	4/29/2014	0 - 2 cm	Y10-RC12-S	217	0.5									1000	0.7	1900	0.8	2400	0.7
RC-13	4/30/2014	0 - 2 cm	Y10-RC13-S	320	0.8									1200	0.8	**2500**	1.0	2600	0.8
RC-14	4/30/2014	0 - 2 cm	Y10-RC14-S	283	0.7									1100	0.7	2200	0.9	2100	0.6
RC-15 (dup of RC-14)	4/30/2014	0 - 2 cm	Y10-RC15-SD	295	0.7									990	0.7	1400	0.6	1200	0.4
WC-01B/R-01B	5/1/2014	2.4 - 3.4 ft	Y10-WC01B-Ca3	32	0.1	20 U	0.3	20 U	0	20 U	0.3	200 U	0.3	20 U	0	6 J	0	6 J	0
RC/WC-04/R-02	5/1/2014	1.9 - 2.9 ft	Y10-WC04-Cb3	41	0.1	19 U	0.3	19 U	0	19 U	0.3	190 U	0.3	19 U	0	19 U	0	19 U	0
WC-15 (dup of WC-04)	5/1/2014	1.9 - 2.9 ft	Y10-WC15-CD	35	0.1	19 U	0.3	19 U	0	19 U	0.3	190 U	0.3	5.8 J	0	4.8 J	0	7.7 J	0
RC/WC-05	5/1/2014	2.7 - 3.7 ft	Y10-WC05-Ca3	37	0.1	19 U	0.3	19 U	0	19 U	0.3	190 U	0.3	19 U	0	6.7 J	0	7.7 J	0
RC/WC-06	5/1/2014	1.6 - 2.6 ft	Y10-WC06-Ca3	36	0.1	19 U	0.3	19 U	0	19 U	0.3	190 U	0.3	19 U	0	19 U	0	19 U	0
RC/WC-10	5/1/2014	2.4 - 3.4 ft	Y10-WC10-Cb3	36	0.1	19 U	0.3	19 U	0	19 U	0.3	190 U	0.3	19 U	0	19 U	0	19 U	0
RC/WC-12	5/1/2014	1.6 - 2.4 ft	Y10-WC12-Cb3	35	0.1	19 U	0.3	19 U	0	19 U	0.3	190 U	0.3	7.8 J	0	9.7 J	0	16 J	0

Table 4-1. SQO Exceedances Year 10 OMMP April 2014 (continued)

Location	Sample Date	Depth Below Mudline	Sample	Total Benzofluoranthenes		Benzo(a)pyrene		Indeno(1,2,3) pyrene		Dibenz(a,h) anthracene		Benzo(g,h,i) perylene		High Molecular Weight PAH		bis(2-Ethylhexyl) phthalate	
				3600		**1600**		**690**		**230**		**720**		**17000**		**1300**	
RC/WC-01	4/30/2014	0-10 cm	Y10-WC01-S	2000	0.6	860	0.5	410	0.6	130	0.6	460	0.6	9200	0.5	**2300**	1.8
RC/WC-02	4/29/2014	0-10 cm	Y10-WC02-S	**4100**	1.1	**1700**	1.1	**820**	1.2	**250**	1.1	**870**	1.2	**18000**	1.1	**8200**	6.3
RC/WC-03	4/30/2014	0-10 cm	Y10-WC03-S	440	0.1	190	0.1	140	0.2	42 J	0.2	190	0.3	2100 J	0.1	1100	0.8
RC/WC-04/R-02	4/29/2014	0-10 cm	Y10-WC04-S	2900	0.8	1200	0.8	470	0.7	130	0.6	490	0.7	11000	0.6	**5200**	4
RC/WC-05	4/30/2014	0-10 cm	Y10-WC05-S	2500	0.7	970	0.6	450	0.7	150	0.7	500	0.7	11000	0.6	**7400**	5.7
RC/WC-06	4/30/2014	0-10 cm	Y10-WC06-S	2500	0.7	1100	0.7	660	0.99	190	0.8	**820**	1.1	11000	0.6	**5600**	4.3
RC/WC-07	4/30/2014	0-10 cm	Y10-WC07-S	2300	0.6	1000	0.6	410	0.6	140	0.6	430	0.6	11000	0.6	**5200**	4
RC/WC-08/R-03	4/29/2014	0-10 cm	Y10-WC08-S	3300	0.9	1500	0.9	600	0.9	170	0.7	560	0.8	13000	0.8	**6200**	4.8
RC/WC-09	4/29/2014	0-10 cm	Y10-WC09-S	3300	0.9	1400	0.9	640	0.9	170	0.7	530	0.7	12000	0.7	**6400**	4.9
RC/WC-10	4/30/2014	0-10 cm	Y10-WC10-S	340	0.1	140	0.1	73	0.1	31 J	0.1	73	0.1	1400 J	0.1	480	0.4
RC/WC-11/R-04	4/29/2014	0-10 cm	Y10-WC11-S	3000	0.8	1300	0.8	440	0.6	130	0.6	490	0.7	12000	0.7	**6500**	5
RC/WC-12	4/29/2014	0-10 cm	Y10-WC12-S	2600	0.7	1200	0.8	330	0.5	100	0.4	330	0.5	9400	0.6	**3400**	2.6
SC-01	4/30/2014	0-10 cm	Y10-SC01-S	460	0.1	190	0.1	93	0.1	33 J	0.1	100	0.1	2000 J	0.1	750	0.6
SC-02	4/30/2014	0-10 cm	Y10-SC02-S	840	0.2	310	0.2	170	0.2	50 J	0.2	180	0.2	3500 J	0.2	**2400**	1.8
SC-03	4/30/2014	0-10 cm	Y10-SC03-S	2000	0.6	820	0.5	420	0.6	120	0.5	470	0.7	9000	0.5	**3600**	2.8
SC-04	4/30/2014	0-10 cm	Y10-SC04-S	550	0.2	220	0.1	130	0.2	32 J	0.1	160	0.2	2400 J	0.1	1100	0.8
WC-13	4/29/2014	0-10 cm	Y10-WC13-S	2800	0.8	1000	0.6	390	0.6	110	0.5	380	0.5	9800	0.6	**4700**	3.6
WC-15 (dup of WC-13)	4/29/2014	0-10 cm	Y10-WC15-SD	2400	0.7	930	0.6	330	0.5	93	0.4	400	0.6	8600	0.5	**4200**	3.2
WC-14	4/29/2014	0-10 cm	Y10-WC14-S	1900	0.5	720	0.4	250	0.4	77	0.3	260	0.4	6800	0.4	**4300**	3.3
S-15	4/28/2014	0-10 cm	S-15-0280414	440	0.1	200	0.1	120	0.2	57 U	0.2	140	0.2	2000	0.1	**1400**	1.1
S-17	4/28/2014	0-10 cm	S-17-0280414	2000	0.6	860	0.5	540	0.8	170	0.7	660	0.9	9100	0.5	**5200**	4
S-19	4/28/2014	0-10 cm	S-19-0280414	1400	0.4	680	0.4	380	0.6	110	0.5	440	0.6	6800	0.4	**3500**	2.7
S-19 (duplicate)	4/28/2014	0-10 cm	S-19-0280414-DUP	1400	0.4	660	0.4	350	0.5	100	0.4	420	0.6	6600	0.4	**3300**	2.5
S-24	4/28/2014	0-10 cm	S-24-0280414	820	0.2	320	0.2	190	0.3	57 U	0.2	210	0.3	3600	0.2	**2600**	2
RC/WC-01	4/30/2014	0 - 2 cm	Y10-RC01-S	2000	0.6	890	0.6	370	0.5	97 J	0.4	370	0.5	8600 J	0.5	**5600**	4.3
RC/WC-02	4/29/2014	0 - 2 cm	Y10-RC02-S	2600	0.7	1100	0.7	**740**	1.1	180 J	0.8	**890**	1.2	12000 J	0.7	**8300**	6.4
RC/WC-03	4/30/2014	0 - 2 cm	Y10-RC03-S	760	0.2	350	0.2	210	0.3	64 J	0.3	230	0.3	3200 J	0.2	**1700**	1.3
RC/WC-04/R-02	4/29/2014	0 - 2 cm	Y10-RC04-S	2800	0.8	1300	0.8	**800**	1.2	210	0.9	**720**	1.0	13000	0.8	**5600**	4.3
RC/WC-05	4/30/2014	0 - 2 cm	Y10-RC05-S	2900	0.8	1200	0.8	480	0.7	140 J	0.6	690	0.9	11000 J	0.6	**7400**	5.7
RC/WC-06	4/30/2014	0 - 2 cm	Y10-RC06-S	2900	0.8	1300	0.8	540	0.8	140 J	0.6	590	0.8	12000 J	0.7	**6100**	4.7
RC/WC-07	4/30/2014	0 - 2 cm	Y10-RC07-S	2400	0.7	970	0.6	410	0.6	110 J	0.5	360	0.5	9500 J	0.6	**6900**	5.3
RC/WC-08/R-03	4/29/2014	0 - 2 cm	Y10-RC08-S	2000	0.6	860	0.5	520	0.8	140 J	0.6	570	0.8	8700 J	0.5	**3800**	2.9
RC/WC-09	4/29/2014	0 - 2 cm	Y10-RC09-S	2100	0.6	1000	0.6	620	0.9	180	0.8	**720**	1.0	9500	0.6	**5700**	4.4
RC/WC-10	4/30/2014	0 - 2 cm	Y10-RC10-S	510	0.1	230	0.1	88 J	0.1	98 U	0.4	88 J	0.1	2000 J	0.1	880	0.7
RC/WC-11/R-04	4/29/2014	0 - 2 cm	Y10-RC11-S	2200	0.6	1100	0.7	590	0.9	160 J	0.7	630	0.9	11000 J	0.6	**6600**	5.1
RC/WC-12	4/29/2014	0 - 2 cm	Y10-RC12-S	2000	0.6	1100	0.7	650	0.9	190	0.8	**740**	1.0	11000	0.6	**4000**	3.1
RC-13	4/30/2014	0 - 2 cm	Y10-RC13-S	3000	0.8	1400	0.9	570	0.8	160	0.7	590	0.8	14000	0.8	**4700**	3.6
RC-14	4/30/2014	0 - 2 cm	Y10-RC14-S	2600	0.7	1200	0.8	350	0.5	110 J	0.5	340	0.5	11000 J	0.6	**5300**	4.1
RC-15 (dup of RC-14)	4/30/2014	0 - 2 cm	Y10-RC15-SD	2300	0.6	980	0.6	450	0.7	130 J	0.6	440	0.6	8900 J	0.5	**5000**	3.8
WC-01B/R-01B	5/1/2014	2.4 - 3.4 ft	Y10-WC01B-Ca3	40 U	0	20 U	0	20 U	0	20 U	0.1	20 U	0	12 J	0	50 U	0
RC/WC-04/R-02	5/1/2014	1.9 - 2.9 ft	Y10-WC04-Cb3	39 U	0	19 U	0	19 U	0	19 U	0.1	19 U	0	39 U	0	48 U	0
WC-15 (dup of WC-04)	5/1/2014	1.9 - 2.9 ft	Y10-WC15-CD	38 U	0	19 U	0	19 U	0	19 U	0.1	19 U	0	13 J	0	48 U	0
RC/WC-05	5/1/2014	2.7 - 3.7 ft	Y10-WC05-Ca3	38 U	0	19 U	0	19 U	0	19 U	0.1	19 U	0	14 J	0	28 J	0
RC/WC-06	5/1/2014	1.6 - 2.6 ft	Y10-WC06-Ca3	38 U	0	19 U	0	19 U	0	19 U	0.1	19 U	0	38 U	0	48 U	0
RC/WC-10	5/1/2014	2.4 - 3.4 ft	Y10-WC10-Cb3	37 U	0	19 U	0	19 U	0	19 U	0.1	19 U	0	37 U	0	46 U	0
RC/WC-12	5/1/2014	1.6 - 2.4 ft	Y10-WC12-Cb3	14 J	0	7.8 J	0	19 U	0	19 U	0.1	19 U	0	62 J	0	52	0

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration

Table 4-2. Thickness of Fine Grained Material over Cap (cm)

Early Warning (0 - 2 cm unless otherwise noted)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13	RC-14	RC-14B
Apr-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 to 3 (City)/ 1 to 3 (UTL)	N/A	N/A	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 (City)/ (UTL)	N/A	N/A	N/A	N/A
Dec-04	1	8 (0-8 cm)	12 (0-12 cm)	9 (0-9 cm)	11 (0-11 cm)	5 (0-5 cm)	4 (0-4 cm)	5 (0-5 cm)	6 (0-6 cm)	3 (0-3 cm)	N/A	3 (0-3 cm)	1	1	N/A
May-05	1.5	9	10	13	10	4.5	3	4	5.5	5	10.5	5	1	1.5	1.5
May-06	N/A	16	11	9 to 17	12	1 to 10	6	7	7	0.5	1	1	2	2	1
May-07	N/A	13+	15+	17+	14-16	12	12+	7	9	1	3	3	N/A	N/A	N/A
May-08	N/A	12*	13*	12*	13	16	18*	8	13	1	7	4	2	8	N/A
May-09	3	23+	16	21	21+	20+	20	18	10	3	10	9	10	7 (avg)	N/A
Apr-11	2	36+	30+	32+	31+	26+	22+	9	17	7	6	6	2	2	N/A
Apr-14	10+	26+	15.5	25+	25+	18	23	13.5	21	3	15	11	2	2	N/A

Waterway Cap (0 - 10 cm)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13	WC-14
Apr-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5 (City)	5 (City)	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 (City)	3	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7 (UTL) / 7 (City)	N/A	N/A	N/A
Dec-04	1	8 (City)	12 (City)	9	11	N/A	4	N/A	6	3	N/A	3 / 3 (City)	N/A	N/A
May-05	N/A	9	N/A	13	10	N/A	2	4	5.5	3 (City)	10.5	5	N/A	N/A
May-06	N/A	16	11	9 to 17	12	1 to 10	6	7	7	0.5	1	1	7	14
May-07	N/A	13+	15+	17+	14-16	12	12+	7	9	1	3	3	8	13+
May-08	N/A	12*	13*	12*	13	16	18*	8	13	1	7	4	3	18
May-09	N/A	23+	16	21	21+	20+	20	18	10	3	10	9	7	11
Apr-11	2	36+	30+	32+	31+	26+	22+	9	17	7	6	6	18	14
Apr-14	10+	26+	15.5	25+	25+	18	23	13.5	21	3	15	11	13	15+

Core Samples

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	N/A	0-1.3 ft	N/A	0-1 ft	N/A	0-1 ft	N/A	0-1.7 ft	N/A
Apr-04	N/A	N/A	1-2 ft	N/A	N/A	N/A	1-2 ft	N/A	1-2 ft	N/A	N/A	N/A
Apr-04	N/A	N/A	2-3 ft	N/A	N/A	N/A	N/A	N/A	2-3.3 ft	N/A	N/A	N/A
May-06	2-3 ft	19	1.5-3 ft	N/A	1-2.5 ft	N/A	2-3 ft	N/A	1-3 ft	N/A	1-2 ft	N/A
May-08	2.5-3.5 ft	N/A	5.5-6.5 ft	N/A	3.7-4.3 ft	N/A	2.9-3.7 ft	N/A	4.1-5.0 ft	N/A	0.6-1.4 ft	N/A
Apr-11	3.0-4.0 ft	N/A	3.4-4.4 ft	N/A	3.1-3.9 ft	N/A	2.3-3.1 ft	N/A	2.9-3.8 ft	N/A	3.4-3.4 ft	N/A
Apr-14	2.4 - 3.4 ft	N/A	1.9-2.9 ft	N/A	2.7-3.7 ft	N/A	1.6-2.6 ft	N/A	2.9-3.8 ft	N/A	1.6-2.4 ft	N/A

Slope Cap

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	N/A	N/A	N/A	N/A
May-06	0-10 cm	N/A	N/A	N/A	N/A
May-08	0-10 cm	1	2-4	1-11	<1-5
Apr-11	0-10 cm	1	1	1-10	2
Apr-14	0-10 cm	<1	0 - 10	1	0

Table 4-2. Thickness of Fine Grained Material over Cap (cm) (continued)

Supplemental Locations													
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**
Aug-04	0-2 cm	1 to 2 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-2 cm	3 to 5 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	N/A	N/A	N/A	2	N/A	N/A	2	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	2	N/A	N/A
Aug-04	0-10 cm	1 to 2 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-10 cm	3 to 5 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-10 cm	12 (UTL) / 12 (City)	5	2 (City)	N/A	4	2 (City)	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-7 cm	N/A	N/A	N/A	7	N/A	N/A	7	8 (0-8 cm)	N/A	N/A	N/A	N/A
Dec-04	0-10 cm	N/A	N/A	N/A	7 (City)	N/A	N/A	7	8 (City)	N/A	2 (City)	4 (City)	N/A
May-05	0-10 cm	N/A	5	6	N/A	8	3.5	N/A	N/A	N/A	6	5	3
May-06	0-10 cm	2	N/A	0.5	N/A	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May-07	0-10 cm	3	N/A	2	N/A	4	N/A	N/A	N/A	N/A	1	N/A	N/A
May-08	0-10 cm	4	N/A	4	N/A	3	N/A	N/A	N/A	N/A	2	N/A	N/A
May-09	0-10 cm	4	N/A	14	N/A	8	N/A	N/A	N/A	N/A	7 (avg)	N/A	N/A
Apr-11	0-10 cm	2	N/A	10	N/A	3	N/A	N/A	N/A	N/A	2	N/A	N/A
Apr-14	0-10 cm	1	N/A	12	N/A	9	N/A	N/A	N/A	N/A	1	N/A	N/A

*Based on piston core results.

Table 4-3. Total bis(2-Ethylhexyl) phthalate Concentration in µg/kg

Early Warning (0 - 2 cm unless otherwise noted)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13
Apr-04	**1300**	470	1100	360	110	500	180	110	230	80	280	60	**1400**
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1600 (City) / 940 (UTL)**	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**12000 (City) / 6400 (UTL)**	N/A	N/A
Dec-04	**1300 B**	**2700 B (0-8 cm)**	940 B (0-12cm)	**1800 B (0-9 cm)**	940 B (0-11 cm)	**1700 B (0-5 cm)**	**4500 B (0-4 cm)**	**3100 B (0-5 cm)**	**2600 B (0-6 cm)**	**2800 B (0-3 cm)**	N/A	**1800 B (0-3 cm)**	830 B
May-05	**8200**	**7300**	**3200**	**6700**	**5600**	**4400**	**4400**	**3500**	**3500**	**3600**	**3500**	**3800**	**2100**
May-06	**8300**	**8700**	**5100**	**5900**	**5400**	**3900**	**5400**	**5400**	**4700**	420	1100	**1300**	**3700**
May-07	**14000**	**9500**	**2600**	**5100**	**4000**	**5600**	**3700**	**4300 (5100)**	**6200**	**1600**	**6100**	**2200**	**7300**
May-08	**6000**	**8200**	**2100**	**2800**	**6900**	**6000**	**5200**	**4500**	**5100**	**2500 (1600)**	**10000**	**3600**	**6600**
May-09	**6600**	**5600 (6,200)**	**2700**	**4900**	**5500**	**5400**	**4900**	**3800**	**5100**	**1400**	**5400**	**2600**	**6500**
Apr-11	**8300 B**	**8900**	**5500**	**5500**	**8200**	**7900**	**3300 BJ**	**5000 B**	**4900 B**	**1800 B**	**5500 BJ**	**3400 B**	**3800 B**
Apr-14	**5600**	**8300**	1700	**5600**	**7400**	**6100**	**6900**	**3800**	**5700**	880	**6600**	**4000**	**4700**

Waterway Cap (0 - 10 cm uless otherwise noted)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13
Apr-04	550	330	240	260	76	160	19 U	49	120	63	220	19 U	100
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	447 B (City)	171 B (City)	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**4300 (City)**	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1500 (UTL)/ 675 (City)**	N/A	N/A
Dec-04	810 B	371 J (City)	275 B (City)	1000 B	**1300 B**	N/A	**3800 B**	N/A	900 B	620 B	N/A	880 B/309 (City)	N/A
May-05	N/A	**2700**	N/A	**1700**	**2200**	N/A	730	220	289	464 (City)	**3500**	823	N/A
May-06	**4300**	**7700**	**2300**	**4600**	**3600**	**1600**	**1800**	**3400**	**4700**	460	960	590	**2000**
May-07	**2300**	**4900**	**1800**	**2300**	**4000**	**2800**	**3600**	**2000**	**2200**	410	640	640	**2700**
May-08	**6400**	**8000**	1200	**2400**	**5400**	**3200**	**4700**	**2500**	**3100**	540 (490)	**3500**	**1600**	**2100**
May-09	**3600 B**	**10000 B**	**2400 B**	**4000 B**	**7900 B**	**3600 B (5500 B)**	**7100 B**	**4200 B**	**7300 B**	1000 B	**3500 B**	**2800 B**	**5700 B**
Apr-11	**4200 B**	**7500**	**3400**	**6200**	**21000**	**6200**	**2600 BJ**	**2100 BJ (2100 BJ)**	**3900 B**	1100 B	**3600 BJ**	**1800 B**	**2600 BJ**
Apr-14	**2300**	**8200**	1100	**5200**	**7400**	**5600**	**5200**	**6200**	**6400**	480	**6500**	**3400**	**4700 (4200)**

Core Samples

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	73	0-1.3 ft	46	0-1 ft	92	0-1 ft	69	0-1.7 ft	49
Apr-04	N/A	N/A	1-2 ft	19 U	N/A	N/A	1-2 ft	63	1-2 ft	20 U	N/A	N/A
Apr-04	N/A	N/A	2-3 ft	19 U	N/A	N/A	N/A	N/A	2-3.3 ft	37	N/A	N/A
May-06	2-3 ft	20	1.5-3 ft	120	1-2.5 ft	63	2-3 ft	29	1-3 ft	38	1-2 ft	20 J
May-08	2.5-3.5 ft	18 J	5.5-6.5 ft	19 U	3.7-4.3 ft	20 U	2.9-3.7 ft	21	4.1-5.0 ft	13 J	0.6-1.4 ft	14 J
Apr-11	3.0-4.0 ft	19 U	3.4-4.4 ft	26 (23)	3.1-3.9 ft	860	2.3-3.1 ft	28	2.9-3.8 ft	18 U	3.4-3.4 ft	18 U
Apr-14	2.4 - 3.4 ft	50 U	1.9-2.9 ft	48 U (48 U)	2.7-3.7 ft	28 J	1.6-2.6 ft	48 U	2.4-3.4 ft	46 U	1.6-2.4 ft	52

Slope Cap

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	26	31	91	94
May-06	0-10 cm	85	1000	**3400**	**1500**
May-08	0-10 cm	76	140	**14000**	**2400**
Apr-11	0-10 cm	**1800 B**	**4800 B**	**7900 B**	1000 B
Apr-14	0-10 cm	750	**2400**	**3600**	1100

Table 4-3. Total bis(2-Ethylhexyl) phthalate Concentration in µg/kg (continued)

Supplemental Locations													
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**
Aug-04	0-2 cm	**3100 (City)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-2 cm	**5100 (UTL)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-2 cm	N/A	N/A	**2900**	N/A	N/A	**1500**	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1500 B**	**2000 B**	N/A	N/A
Aug-04	0-10 cm	980 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-10 cm	**4500 (City)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-10 cm	1100 (UTL) / 1250 (City)	**3600**	698 J (City)	N/A	**3200**	674 (City)	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-7 cm	N/A	N/A	N/A	**2000 B**	N/A	N/A	**2000 B**	**2200 B (0-8 cm)**	N/A	N/A	N/A	N/A
Dec-04	0-10 cm	N/A	N/A	N/A	313 B (City)	N/A	N/A	652	**1310 (City)**	N/A	558 (City)	**1940 (City)**	N/A
May-05	0-10 cm	**3000**	629	**2000**	N/A	601	965	N/A	N/A	N/A	**2000**	687	224
May-06	0-10 cm	930	N/A	570	N/A	880	N/A	N/A	N/A	N/A	550	N/A	N/A
May-07	0-10 cm	500 (590)	N/A	620	N/A	300	N/A	N/A	N/A	N/A	790	N/A	N/A
May-08	0-10 cm	**1600**	N/A	**2400**	N/A	1200	N/A	N/A	N/A	N/A	**1800**	N/A	N/A
May-09	0-10 cm	700 B	N/A	**7000 B**	N/A	**3600 B**	N/A	N/A	N/A	N/A	**4100 B**	N/A	N/A
Apr-11	0-10 cm	**2100**	N/A	**6000**	N/A	**2300**	N/A	N/A	N/A	N/A	**1400**	N/A	N/A
Apr-14	0-10 cm	**1400**	N/A	**5200**	N/A	**3500 (3300)**	N/A	N/A	N/A	N/A	**2600**	N/A	N/A

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration

Table 4-4. Total HPAH Concentration in µg/kg

Early Warning (0 - 2 cm unless otherwise noted. Values rounded to two significant figures.)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13	RC-14	RC-14B
Apr-04	2700	1000	2300	870	260	1100	270	210	580	390	880	22	4200	7400	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4000 (City) /1300 (UTL)	N/A	N/A	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**55000 (City)/ 50000 (UTL)**	N/A	N/A	N/A	N/A
Dec-04	3200	6600 (0-8 cm)	2500 (0-12 cm)	5900 (0-9 cm)	2600 (0-11 cm)	5400 (0-5 cm)	14000 (0-4 cm)	14000 (0-5 cm)	10000 (0-6 cm)	**23000 (0-3 cm)**	N/A	15000 (0-3 cm)	2000	2500	N/A
May-05	**19000**	**17000**	8600	**20000**	**20000**	14000	9800	**17000**	**20000**	**25000**	**25000**	**40000**	5800	8700	4800
May-06	15000	**22000 J**	10000	13000	8400	6800	9400	11000	11000	760	1200	2400 J	10000	7200	7200
May-07	12000J	**26000**	7100 J	11000 J	8500 J	12000 J	8300 J	11000 (12000 J)	11000 J	3800 J	8300	5400 J	**30000**	16000	N/A
May-08	**17000**	**18000**	6400	6700	12000	14000	12000	11000	11000	6900 (4400)	**19000**	11000	**19000**	**19000**	N/A
May-09	**19000 J**	12000 (13000 J)	6800 J	12000	9700	9800	12000	9600 J	9300	4400 J	9100	5800	**24000 J**	12000	N/A
Apr-11	14000	12000	14000	**18000**	**19000**	**20000**	6600	11000	9300	5200	8300	9100	14000	**19000 (14000)**	N/A
Apr-14	8600 J	12000 J	3200 J	13000	11000 J	12000 J	9500 J	8700 J	9500	2000 J	11000 J	11000	14000	11000 J (8900 J)	N/A

Waterway Cap (0 - 10 cm unless otherwise noted. Values rounded to two significant figures.)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13	WC-14
Apr-04	1200	720	540	690	220	350	19 U	26	260	190	410	19 U	160	66
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2000 (City)	730 (City)	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**27000 (City)**	N/A	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8900 (UTL)/4000 (City)	N/A	N/A	N/A
Dec-04	2300	2500 (City)	1600 (City)	3800	4800	N/A	2200	N/A	4000	4000	N/A	8100 / 3500(City)	N/A	N/A
May-05	NA	7300	N/A	5300	6900	N/A	2600	2500	3700	2800 (City)	**27000**	8600	N/A	N/A
May-06	8400	**17000 J**	5200	9800 J	11000	3300	3800	8000	7100	1600	1000 J	980	5500	8000
May-07	6500 J	**20000**	4400 J	5300 J	9600 J	6500	8700 J	6000	5300	1100	950 J	1700 J	8000 J	5200
May-08	12000	**22000**	3100	6600	11000	7700	13000	6900	6700	1500 (1400)	6000	5200	4600	6000
May-09	13000 J	**29000**	6400 J	11000 J	16000	7800 (12000 J)	16000	10000	**18000**	2900 J	4600	8500	14000	9600
Apr-11	4600	**21000**	12000	**19000**	**17000**	**17000**	6800	5500 (5300)	8300	3200	5700	5300	7000	7600
Apr-14	9200	**18000**	2100 J	11000	11000	11000	11000	13000	12000	1400 J	12000	9400	9800 (8600)	6800

Core Samples (Values rounded to two significant figures.)

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	190	0-1.3 ft	19 U	0-1 ft	71	0-1 ft	20 U	0-1.7 ft	20 U
Apr-04	N/A	N/A	1-2 ft	19 U	N/A	N/A	1-2 ft	20 U	1-2 ft	20 U	1-2 ft	15 J
Apr-04	N/A	N/A	2-3 ft	19 U	N/A	N/A	N/A	N/A	2-3.3 ft	19 U	N/A	N/A
May-06	2-3 ft	20 U	1.5-3 ft	310 J	1-2.5 ft	130 J	2-3 ft	54 J	1-3 ft	20 U	N/A	15 J
May-08	2.5-3.5 ft	19 U	5.5-6.5 ft	21 J	3.7-4.3 ft	20 U	2.9-3.7 ft	790	4.1-5.0 ft	20 U	0.6-1.4 ft	28 J
Apr-11	3.0-4.0 ft	19 U	3.4-4.4 ft	93 (19 U)	3.1-3.9 ft	2900	2.3-3.1 ft	83	2.9-3.8 ft	18 U	3.4-3.4 ft	18 U
Apr-14	2.4 - 3.4 ft	12 J	1.9-2.9 ft	39 U (13 J)	2.7-3.7 ft	14 J	1.6-2.6 ft	38 U	2.9-3.8 ft	37 U	1.6-2.4 ft	62 J

Slope Cap (Values rounded to two significant figures.)

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	19 U	19 U	170	19 U
May-06	0-10 cm	320	2100 J	7300	3600
May-08	0-10 cm	630	1400 J	10000	5600
Apr-11	0-10 cm	4300	8100	15000	3100
Apr-14	0-10 cm	2000 J	3500 J	9000	2400 J

Table 4-4. Total HPAH Concentration in µg/kg (continued)

Supplemental Locations (Values rounded to two significant figures.)													
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**
Aug-04	0-2 cm	4300 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-2 cm	**95000 (UTL)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-2 cm	N/A	N/A	14000	N/A	N/A	8100	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11000	10000	N/A	N/A
Aug-04	0-10 cm	3800 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-10 cm	**81000 (City)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-10 cm	**19000 (UTL) / 35000 (City)**	9300	3600 (City)	N/A	**26000**	7600 (City)	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-7 cm	N/A	N/A	N/A	7600	N/A	N/A	**26000**	16000 (0-8 cm)	N/A	N/A	N/A	N/A
Dec-04	0-10 cm	N/A	N/A	N/A	2000 (City)	N/A	N/A	**18000 (City)**	7500 (City)	N/A	2600 (City)	8900 (City)	N/A
May-05	0-10 cm	**46000**	4200	10000	N/A	5700	7100	N/A	N/A	N/A	6700	4900	2300
May-06	0-10 cm	1200 J	N/A	820 J	N/A	1600	N/A	N/A	N/A	N/A	1100 J	N/A	N/A
May-07	0-10 cm	1000 J (1100 J)	N/A	1300 J	N/A	780	N/A	N/A	N/A	N/A	1800 J	N/A	N/A
May-08	0-10 cm	2800	N/A	5300	N/A	3400	N/A	N/A	N/A	N/A	4700	N/A	N/A
May-09	0-10 cm	1200 J	N/A	12000	N/A	11000 J	N/A	N/A	N/A	N/A	10000 J	N/A	N/A
Apr-11	0-10 cm	3400	N/A	14000	N/A	6400 J	N/A	N/A	N/A	N/A	4600	N/A	N/A
Apr-14	0-10 cm	2000	N/A	9100	N/A	6800 (6600)	N/A	N/A	N/A	N/A	3600	N/A	N/A

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration

Table 4-5. Total LPAH Concentration in µg/kg

Early Warning (0 - 2 cm unless otherwise noted. Values rounded to two significant figures.)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13	RC-14	RC-14B
Apr-04	160	200	590	190	74	160	26	28	130	160	340	20 U	300	660	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	920(City)/ 240(UTL)	N/A	N/A	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**31000(City)/ 35000(UTL)**	N/A	N/A	N/A	N/A
Dec-04	550	1000 (0-8 cm)	510 (0-12 cm)	1200 (0-9 cm)	580 (0-11 cm)	1800 (0-5 cm)	4600 (0-4 cm)	**5500 (0-5 cm)**	3300 (0-6 cm)	**11000 (0-3 cm)**	N/A	**7000 (0-3 cm)**	200	260	N/A
May-05	2300	2800	1700	4700	5100	3100	2400	4600	5000	**9600**	**9900**	**19000**	690	1000	380
May-06	1900 J	2600 J	1200	2100 J	910	740	1400 J	2100 J	1900	79 J	110	400 J	1100	830	730
May-07	2000 J	3400 J	830 J	1400 J	930 J	1400 J	1100 J	1500 J (1700 J)	1200	410 J	1000 J	900 J	3700	2100 J	N/A
May-08	2000 J	1800	750	760	1400	1400	1400	1200	1300	460 (380)	2400	2000	2200 J	2000	N/A
May-09	3000	1400 (1700)	910	1500	1600	1000	1400	1300	1000	500 J	1100	1100	2400	1400	N/A
Apr-11	2200	1700 J	1800 J	2400 J	2600 J	2700 J	910 J	1600 J	1400 J	880	1500 J	2200	2100	2800 (2200)	N/A
Apr-14	1300 J	2100 J	390 J	1900 J	1700 J	1900 J	1600 J	1400 J	1500 J	350 J	2400 J	2800 J	1900 J	1500 J (1400 J)	N/A

Waterway Cap (0 -10 cm unless otherwise noted. Values rounded to two significant figures.)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13	WC-14
Apr-04	85	70	200	340	64	33	19 U	19 U	57	88	94	19 U	21	20
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	800 (City)	280 (City)	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**13000 (City)**	N/A	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4300 (UTL) / 1600 (City)	N/A	N/A	N/A
Dec-04	220	480 (City)	380(City)	730	1200	N/A	590	N/A	1000	1700 / 1500(City)	N/A	4000 / 2200 (City)	N/A	N/A
May-05	N/A	1200	1700	950	1500	N/A	500	760	1300	N/A	**9200**	4100	N/A	N/A
May-06	970 J	2300 J	1200	1500	2300	440	560 J	1700 J	1700	970 J	91	120 J	1300	1400
May-07	910 J	2700 J	470 J	750 J	1200 J	760 J	1200 J	1500 J (1700 J)	930 J	120 J	92 J	320 J	1500 J	820 J
May-08	1400 J	2100	230	740	1200	690	2000	1000	780	140 (110)	600	890	500	670
May-09	1300 J	3200 J	480	1200 J	2000 J	700 J (1300 J)	1600 J	1300 J	2400 J	230	400 J	1500 J	1600 J	1200 J
Apr-11	630 J	2900 J	1700 J	2400 J	2200 J	2300 J	840 J	840 J (830 J)	1200 J	520	1000 J	1300	970 J	970 J
Apr-14	1300 J	2700 J	270 J	1700 J	1700 J	1800 J	2200 J	2200 J	2000 J	280 J	3000	2800	1700 J (1600 J)	1100 J

Core Samples (Values rounded to two significant figures.)

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	33	0-1.3 ft	19 U	0-1 ft	30	0-1 ft	20 U	0-1.7 ft	20 U
Apr-04	N/A	N/A	1-2 ft	19 U	N/A	N/A	1-2 ft	20 U	1-2 ft	20 U	N/A	N/A
Apr-04	N/A	N/A	2-3 ft	19 U	N/A	N/A	N/A	N/A	2-3.3 ft	19 U	N/A	N/A
May-06	2-3 ft	20 U	1.5-3 ft	36	1-2.5 ft	11 J	2-3 ft	20 U	1-3 ft	20 U	1-2 ft	20 U
May-08	2.5-3.5 ft	19 U	5.5-6.5 ft	19 U	3.7-4.3 ft	20 U	2.9-3.7 ft	380 J	4.1-5.0 ft	14 J	0.6-1.4 ft	20 U
Apr-11	3.0-4.0 ft	19 U	3.4-4.4 ft	24 (19 U)	3.1-3.9 ft	520	2.3-3.1 ft	19 U	2.9-3.8 ft	18 U	3.4-3.4 ft	18 U
Apr-14	2.4 - 3.4 ft	20 U	1.9-2.9 ft	19 U (5.8 J)	2.7-3.7 ft	19 U	1.6-2.6 ft	19 U	2.4-3.4 ft	19 U	1.6-2.4 ft	14 J

Slope Cap (Values rounded to two significant figures.)

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	19 U	19 U	20 U	19 U
May-06	0-10 cm	30	390 J	850	600 J
May-08	0-10 cm	64	150 J	1000 J	500 J
Apr-11	0-10 cm	480 J	1100	2100	380 J
Apr-14	0-10 cm	410 J	470 J	1100 J	400 J

Table 4-5. Total LPAH Concentration in µg/kg (continued)

Supplemental Locations (Values rounded to two significant figures.)													
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**
Aug-04	0-2 cm	**5400 (City)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-2 cm	**84000 (UTL)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-2 cm	N/A	N/A	5000	N/A	N/A	2800	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4500	**7400**	N/A	N/A
Aug-04	0-10 cm	**5600 (UTL)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-10 cm	**62000 (City)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-10 cm	**13000 (UTL) / 24000 (City)**	**8900**	1300 (City)	N/A	4900	4000 (City)	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-7 cm	N/A	N/A	N/A	1900	N/A	N/A	**17000**	**7500 (0-8 cm)**	N/A	N/A	N/A	N/A
Dec-04	0-10 cm	N/A	N/A	N/A	640 (City)	2400	N/A	**12000 (City)**	3700 (City)	N/A	1000 (City)	4300 (City)	N/A
May-05	0-10 cm	**22000**	1500	2500	N/A	2400	2400	N/A	N/A	N/A	2000	1900	750
May-06	0-10 cm	120	N/A	71	N/A	N/A	N/A	N/A	N/A	N/A	120 J	N/A	N/A
May-07	0-10 cm	120 J (120 J)	N/A	160 J	N/A	N/A	N/A	N/A	N/A	N/A	220 J	N/A	N/A
May-08	0-10 cm	180	N/A	510	N/A	640	N/A	N/A	N/A	N/A	410	N/A	N/A
May-09	0-10 cm	110 J	N/A	1400 J	N/A	1900	N/A	N/A	N/A	N/A	1100 J	N/A	N/A
Apr-11	0-10 cm	520 J	N/A	1800 J	N/A	1300 J	N/A	N/A	N/A	N/A	680 J	N/A	N/A
Apr-14	0-10 cm	330 J	N/A	1800 J	N/A	2200 (1700)	N/A	N/A	N/A	N/A	560 J	N/A	N/A

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration

Table 4-6. Total PCB Concentration in µg/kg

Early Warning (0 - 2 cm unless otherwise noted. Values rounded to two significant figures.)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13	RC-14	RC-14B
Apr-04	5.7	6.3	7.2	5.7	4.3	9.2	7.6 U	7.7 U	6.5	7.8 U	11	7.9 U	7.8 U	7.7 U	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	62 (City)/ 2 U (UTL)	N/A	N/A	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	300 (City)/ 280 (UTL)	N/A	N/A	N/A	N/A
Dec-04	39 U	53 (0-8 cm)	20 U (0-12 cm)	22 (0-9 cm)	20 U (0-11 cm)	58 (0-5 cm)	54 (0-4 cm)	78 (0-5 cm)	94 (0-6 cm)	120 (0-3 cm)	N/A	210 (0-3 cm)	20 U	19 U	N/A
May-05	200 J	**300 J**	180 J	170 J	270 J	190 J	120 J	190 J	220 J	270 J	**380 J**	280 J	80 J	110 J	19 J
May-06	95 J	170	130 J	110	140 J	110 J	97 J	110	230 J	28 J	9.8 U	43 J	98 J	62 J	81 J
May-07	170	130	64 JC	140	140	130	110	140 (130JC)	120	38 J	120	72	190	120	N/A
May-08	110	140	64 JC	97	110	97	120	110	140	38 J (26)	130	66	94	130	N/A
May-09	170	180 (160)	110	160 J	69	150 J	160	110	140 J	55	140	84	140 J	94	N/A
Apr-11	87	200	120	130	180	190	230	250	240	98	250	140	230	230 (214)	N/A
Apr-14	160	240	78	180	200	240	170	170	190	51	200	180	240	140 (140)	N/A

Waterway Cap (0 - 10 cm unless otherwise noted. Values rounded to two significant figures.)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13	WC-14
Apr-04	7.8 U	7.8 U	5.7	5.4	7.8 U	8 U	7.8 U	7.6 U	7.9 U	7.9 U	7.6 U	7.7 U	7.8 U	7.7 U
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	94 (City)	28 (City)	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	190 (City)	N/A	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	99 (UTL)/ 210 (City)	N/A	N/A	N/A
Dec-04	20 U	66 (City)	56 J (City)	22	24	N/A	21	N/A	64	19	N/A	'92/ 160 (City)	N/A	N/A
May-05	N/A	130 J	N/A	89 J	84 J	N/A	20 U	67 J	110 J	73 (City)	**620**	**310**	N/A	N/A
May-06	72 J	160	110	86	140 J	44	88 J	110	140 J	18 J	9.7 U	12 J	130	190 J
May-07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.9 U	9.7 U	9.9 U	N/A	N/A
May-08	120	140 J	51 J	87	110	79 J	110	120	120	12 J (11 J)	68	40 J	43 J	120
Apr-11	41	250	69	180	160	160	190	160 (164)	200	66	140	110	180	160
Apr-14	170	180	41	160	190	220	170	170	200	35	240	150	150 (150)	140

Core Samples (Values rounded to two significant figures.)

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	7.6 U	0-1.3 ft	7.8 U	0-1 ft	8 U	0-1 ft	7.8 U	0-1.7 ft	7.9 U
Apr-04	N/A	N/A	1-2 ft	7.8 U	N/A	N/A	1-2 ft	8 U	1-2 ft	7.9 U	N/A	N/A
Apr-04	N/A	N/A	2-3 ft	7.8 U	N/A	N/A	N/A	N/A	2-3.3 ft	7.7 U	N/A	N/A
May-06	2-3 ft	9.7 U	1.5-3 ft	9.8 U	1-2.5 ft	9.6 U	2-3 ft	9.7 U	1-3 ft	9.8 U	1-2 ft	9.7 U
May-08	2.5-3.5 ft	9.7 U	5.5-6.5 ft	9.7 U	3.7-4.3 ft	10 U	2.9-3.7 ft	9.7 U	4.1-5.0 ft	10 U	0.6-1.4 ft	9.8 U
Apr-11	3.0-4.0 ft	9.4 U	3.4-4.4 ft	9.4 U (9.4 U)	3.1-3.9 ft	78	2.3-3.1 ft	9.8 U	2.9-3.8 ft	8.8 U	3.4-3.4 ft	9.4 U
Apr-14	2.4 - 3.4 ft	14 U	1.9-2.9 ft	24 U (29 U)	2.7-3.7 ft	24 U	1.6-2.6 ft	18 U	2.4-3.4 ft	28 U	1.6-2.4 ft	18 U

Slope Cap (Values rounded to two significant figures.)

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	7.7 U	7.9 U	8 U	7.7 U
May-06	0-10 cm	9.7 U	60 J	71 J	75 J
May-08	0-10 cm	9.7 U	64	66	46 J
Apr-11	0-10 cm	48	86	120	32
Apr-14	0-10 cm	36	90	150	71

Table 4-6. Total PCB Concentration in µg/kg (continued)

Supplemental Locations (Values rounded to two significant figures.)															
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**		
Aug-04	0-2 cm	94 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sep-04	0-2 cm	**540 (UTL)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Nov-04	0-2 cm	88	N/A	N/A	N/A	N/A	18	N/A	N/A	N/A	N/A	N/A	N/A		
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	96	130	N/A	N/A		
Aug-04	0-10 cm	35 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sep-04	0-10 cm	**530 (City)**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Nov-04	0-10 cm	280 (UTL)	N/A	88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Nov-04	0-10 cm	**280 (UTL) / 340 (City)**	220	76(City)	N/A	140	120 (City)	N/A	N/A	N/A	N/A	N/A	N/A		
Dec-04	0-7 cm	N/A	N/A	N/A	80	N/A	N/A	**370**	74 (0-8 cm)	N/A	N/A	N/A	N/A		
Dec-04	0-10 cm	N/A	N/A	N/A	70 (City)	N/A	N/A	290 (City)	110 (City)	N/A	56 (City)	120 (City)	N/A		
May-05	0-10 cm	**460 J**	200	59 J	N/A	**400**	180	N/A	N/A	N/A	130 J	270	33 J		
May-06	0-10 cm	23	N/A	15 U	N/A	23 J	N/A	N/A	N/A	N/A	9.9 U	N/A	N/A		
May-07	0-10 cm	9.7 U (9.8 U)	N/A	10 U	N/A	9.8 U	N/A	N/A	N/A	N/A	18	N/A	N/A		
May-08	0-10 cm	18 J	N/A	37 J	N/A	35 J	N/A	N/A	N/A	N/A	25	N/A	N/A		
Apr-11	0-10 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Apr-14	0-10 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration

Table 4-7. Lead Concentrations in mg/kg

Early Warning (0 - 2 cm unless otherwise noted)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13	RC-14	RC-14B
Apr-04	25	20	44	19	19	18	6	5	15	11	35	4	42	54	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	45.7 (City)/ 30 (UTL)	N/A	N/A	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	160 (City)/ 238 (UTL)	N/A	N/A	N/A	N/A
Dec-04	27	70 (0-8 cm)	34 (0-12 cm)	49 (0-9 cm)	54 (0-11 cm)	83 (0-5 cm)	140 (0-4 cm)	100 (0-5 cm)	64 (0-6 cm)	123 (0-3 cm)	N/A	190 (0-3 cm)	23	52	N/A
May-05	104	122	55	140	108	114	70	145	144	159	178	186	38	58	37
May-06	90	97	62	44	76	47	70	73	76	15	13	19	73	67	60
May-07	111	114	36	77	78	86	64	70 (76)	86	33	73	39	113	70	N/A
May-08	94	134	33	54	78	93	91	73	99	33 (36)	106	62	82	111	N/A
May-09	206	125 (112)	58	85	79	90	139	88	92	39	118	61	112	92	N/A
Apr-11	77	120	66	70	103	108	130	112	104	49	123	90	124	109 (126)	N/A
Apr-14	92	130	28	107	111	117	101	99	101	28	124	87	103	76 (98)	N/A

Waterway Cap (0 - 10 cm unless otherwise noted)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13	WC-14
Apr-04	6	15	20	13	10	7	2	4	7	4	14	3	4	4
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	43.7 (City)	14.5 (City)	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	167 (City)	N/A	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	91 (UTL)/ 158 (City)	N/A	N/A	N/A
Dec-04	22	49.4 (City)	42 (City)	35	70	N/A	42	N/A	32	27	N/A	68/ 71.9 (City)	N/A	N/A
May-05	N/A	54	N/A	50	54	N/A	23	N/A	N/A	30.8 (City)	212	N/A	N/A	N/A
May-06	86	92	37	54	29	28	45	64	66	12	11	10	51	70
May-07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70 (76)	N/A	10	73	18	N/A	N/A
May-08	89	112	28	48	86	50	82	71	71	11 (9)	106	36	32	74
Apr-11	41	127	52	99	87	97	91	56 (67)	93	39	77	102	116	109
Apr-14	115	116	19	77	110	111	101	98	104	19	117	70	87 (88)	62

Core Samples

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	3	0-1.3 ft	2 U	0-1 ft	3	0-1 ft	3	0-1.7 ft	2
Apr-04	N/A	N/A	1-2 ft	5 U	N/A	N/A	1-2 ft	3	1-2 ft	2	N/A	N/A
Apr-04	N/A	N/A	2-3 ft	2 U	N/A	N/A	N/A	N/A	2-3.3 ft	2 U	N/A	N/A
May-06	2-3 ft	3	1.5-3 ft	5	1-2.5 ft	3	2-3 ft	3	1-3 ft	2	1-2 ft	3
May-08	2.5-3.5 ft	2 U	5.5-6.5 ft	2 U	3.7-4.3 ft	2 U	2.9-3.7 ft	2 U	4.1-5.0 ft	2 U	0.6-1.4 ft	2 U
Apr-11	3.0-4.0 ft	2 U	3.4-4.4 ft	2 U (2 U)	3.1-3.9 ft	26	2.3-3.1 ft	2 U	2.9-3.8 ft	2 U	3.4-3.4 ft	2 U
Apr-14	2.4 - 3.4 ft	2 U	1.9-2.9 ft	2 U (2 U)	2.7-3.7 ft	2 U	1.6-2.6 ft	2 U	2.4-3.4 ft	2 U	1.6-2.4 ft	2

Slope Cap

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	3	2 U	4	4
May-06	0-10 cm	5	36	58	44
May-08	0-10 cm	4	58	64	53
Apr-11	0-10 cm	44	77	89	35
Apr-14	0-10 cm	32	83	92	41

Table 4-7. Lead Concentrations in mg/kg (continued)

Supplemental Locations													
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**
Aug-04	0-2 cm	72.1 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-2 cm	335 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-2 cm	N/A	N/A	125	N/A	N/A	74	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	98	113	N/A	N/A
Aug-04	0-10 cm	80 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-10 cm	296(City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-10 cm	140 (UTL)/ 240 (City)	220	38.6 (City)	N/A	182	55.7 (City)	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-7 cm	N/A	N/A	N/A	56	N/A	N/A	207	89 (0-8 cm)	N/A	N/A	N/A	N/A
Dec-04	0-10 cm	N/A	N/A	N/A	26.4 (City)	N/A	N/A	147(City)	44.8 (City)	N/A	25.8 (City)	48.6(City)	N/A
May-05	0-10 cm	162	N/A	87	N/A	N/A	N/A	N/A	N/A	N/A	59	N/A	N/A
May-06	0-10 cm	15	N/A	9	N/A	16	N/A	N/A	N/A	N/A	11	N/A	N/A
May-07	0-10 cm	10 (12)	N/A	15	N/A	11	N/A	N/A	N/A	N/A	23	N/A	N/A
May-08	0-10 cm	23	N/A	42	N/A	31	N/A	N/A	N/A	N/A	40	N/A	N/A
Apr-11	0-10 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Apr-14	0-10 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration

Table 4-8. Zinc Concentration in mg/kg

Early Warning (0 - 2 cm unless otherwise noted)

Date	RC-01	RC-02	RC-03	RC-04	RC-05	RC-06	RC-07	RC-08	RC-09	RC-10	RC-11	RC-12	RC-13	RC-14	RC-14B
Apr-04	74.3	71	115	70	70	56	40.6	33	53.3	43.7	82.8	43.9	99.3	167	N/A
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	99.6 (City)/ 86.3 (UTL)	N/A	N/A	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	205 (City)/ 280 (UTL)	N/A	N/A	N/A	N/A
Dec-04	71.9	164 (0-8 cm)	90 (0-12 cm)	128 (0-9 cm)	117 (0-11 cm)	153 (0-5 cm)	238 (0-4 cm)	180 (0-5 cm)	126 (0-6 cm)	182 (0-3 cm)	N/A	241 (0-3 cm)	71.2	135	N/A
May-05	289	261	123	254	187	216	141	215	211	203	231	217	118	203	117
May-06	287	254	166	108	189	121	169	150	158	52	56.9	59.9	208	219	194
May-07	380	**539**	113	227	220	227	173	184 (194)	221	102	195	109	256	209	N/A
May-08	308	**452**	108	161	242	265	256	208	275	99 (106)	273	157	224	375	N/A
May-09	**448**	**473 (438)**	190	257	268	266	371	266	286	124	353	181	342	325	N/A
Apr-11	266	368	203	234	337	322	379	315	303	136	325	222	361	365 (367)	N/A
Apr-14	275	**470**	104	342	375	358	353	288	293	87	332	217	320	283 (295)	N/A

Waterway Cap (0 - 10 cm unless otherwise noted)

Date	WC-01	WC-02	WC-03	WC-04	WC-05	WC-06	WC-07	WC-08	WC-09	WC-10	WC-11	WC-12	WC-13	WC-14
Apr-04	41	58	63	52.2	48	38.8	30.7	31.8	37.4	34.5	60.5	35.9	38.5	34.4
Aug-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90.3 (City)	44.8 (City)	N/A	N/A
Sep-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	239 (City)	N/A	N/A	N/A
Nov-04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	135 (UTL)/ 168 B (City)	89.7 B (City)	N/A	N/A
Dec-04	68.5	107 B (City)	93 B (City)	95	138	N/A	93	N/A	81	66	N/A	111	N/A	N/A
May-05	N/A	127	N/A	113	111	N/A	62.2	N/A	N/A	54.9 B (City)	257	N/A	N/A	N/A
May-06	269	252	99	133	63	80.7	112	134	130	44	44.2	39.4	116	160
May-07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	184 (194)	221	49	195	62	N/A	N/A
May-08	324	348	96	152	255	145	222	176	202	51 (51)	165	100	106	209
Apr-11	132	402	171	308	282	282	274	166 (187)	272	103	193	273	330	331
Apr-14	212	**428**	79	237	347	315	301	291	311	64	317	187	247 (252)	211

Core Samples

Date	Depth Below Mudline	WC-01B	Depth Below Mudline	WC-04	Depth Below Mudline	WC-05	Depth Below Mudline	WC-06	Depth Below Mudline	WC-10	Depth Below Mudline	WC-12
Apr-04	N/A	N/A	0-1 ft	35.3	0-1.3 ft	28.9	0-1 ft	39.4	0-1 ft	33.7	0-1.7 ft	34.3
Apr-04	N/A	N/A	1-2 ft	38	N/A	N/A	1-2 ft	40	1-2 ft	35.6	N/A	N/A
Apr-04	N/A	N/A	2-3 ft	36.9	N/A	N/A	N/A	N/A	2-3.3 ft	19.9	N/A	N/A
May-06	2-3 ft	29.5	1.5-3 ft	40.8	1-2.5 ft	34.7	2-3 ft	31.5	1-3 ft	33.7	1-2 ft	38.1
May-08	2.5-3.5 ft	36	5.5-6.5 ft	36	3.7-4.3 ft	31	2.9-3.7 ft	39	4.1-5.0 ft	32	0.6-1.4 ft	37
Apr-11	3.0-4.0 ft	33	3.4-4.4 ft	30 (32)	3.1-3.9 ft	61	2.3-3.1 ft	36	2.9-3.8 ft	35	3.4-3.4 ft	35
Apr-14	2.4 - 3.4 ft	32	1.9-2.9 ft	41 (35)	2.7-3.7 ft	37	1.6-2.6 ft	36	2.4-3.4 ft	36	1.6-2.4 ft	35

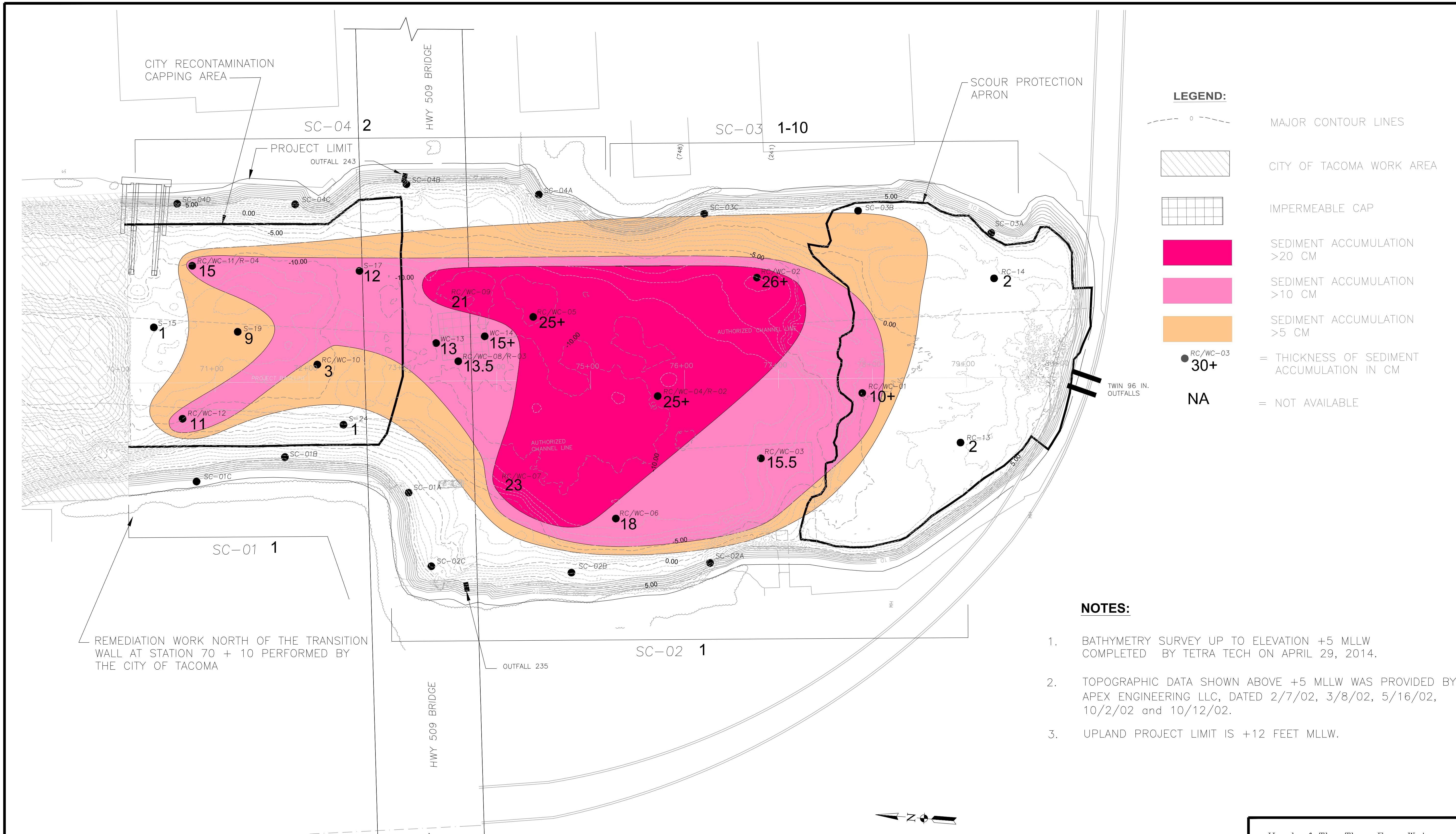
Slope Cap

Date	Depth Below Mudline	SC-01	SC-02	SC-03	SC-04
Apr-04	0-10 cm	33	31.1	36.3	35.7
May-06	0-10 cm	36.6	87.3	169	119
May-08	0-10 cm	37	175	200	147
Apr-11	0-10 cm	129	204	293	114
Apr-14	0-10 cm	101	231	273	122

Table 4-8. Zinc Concentration in mg/kg (continued)

Supplemental Locations													
Date	**Depth**	**S-15**	**S-16**	**S-17**	**S-18**	**S-19**	**S-20**	**S-21**	**S-22**	**S-23**	**S-24**	**S-29**	**S-30**
Aug-04	0-2 cm	79.6 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-2 cm	363 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-2 cm	N/A	N/A	173	N/A	N/A	111	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-3 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	145	175	N/A	N/A
Aug-04	0-10 cm	79.6 (UTL)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-04	0-10 cm	360 (City)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-04	0-10 cm	179 (UTL)/ 232 B (City)	279	64.3 B (City)	N/A	220	83.9 B (City)	N/A	N/A	N/A	N/A	N/A	N/A
Dec-04	0-7 cm	N/A	N/A	N/A	122	N/A	N/A	257	133 (0-8 cm)	N/A	N/A	N/A	N/A
Dec-04	0-10 cm	N/A	N/A	N/A	54.6 B (City)	N/A	N/A	159 B (City)	71.6 B (City)	N/A	48.6 B (City)	N/A	N/A
May-05	0-10 cm	200	N/A	134	N/A	N/A	N/A	N/A	N/A	N/A	105	71.7 B (City)	N/A
May-06	0-10 cm	58.8	N/A	43.4	N/A	50	N/A	N/A	N/A	N/A	40.3	N/A	N/A
May-08	0-10 cm	55 (52)	N/A	58	N/A	55	N/A	N/A	N/A	N/A	69	N/A	N/A
May-08	0-10 cm	77	N/A	122	N/A	83	N/A	N/A	N/A	N/A	115	N/A	N/A
Apr-11	0-10 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Apr-14	0-10 cm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold indicates an exceedance of the SQO.
U = The analyte was not detected at the reported concentration
B = Analyte detected in an associated method blank (which may bias the result high)
J = Estimated concentration



NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

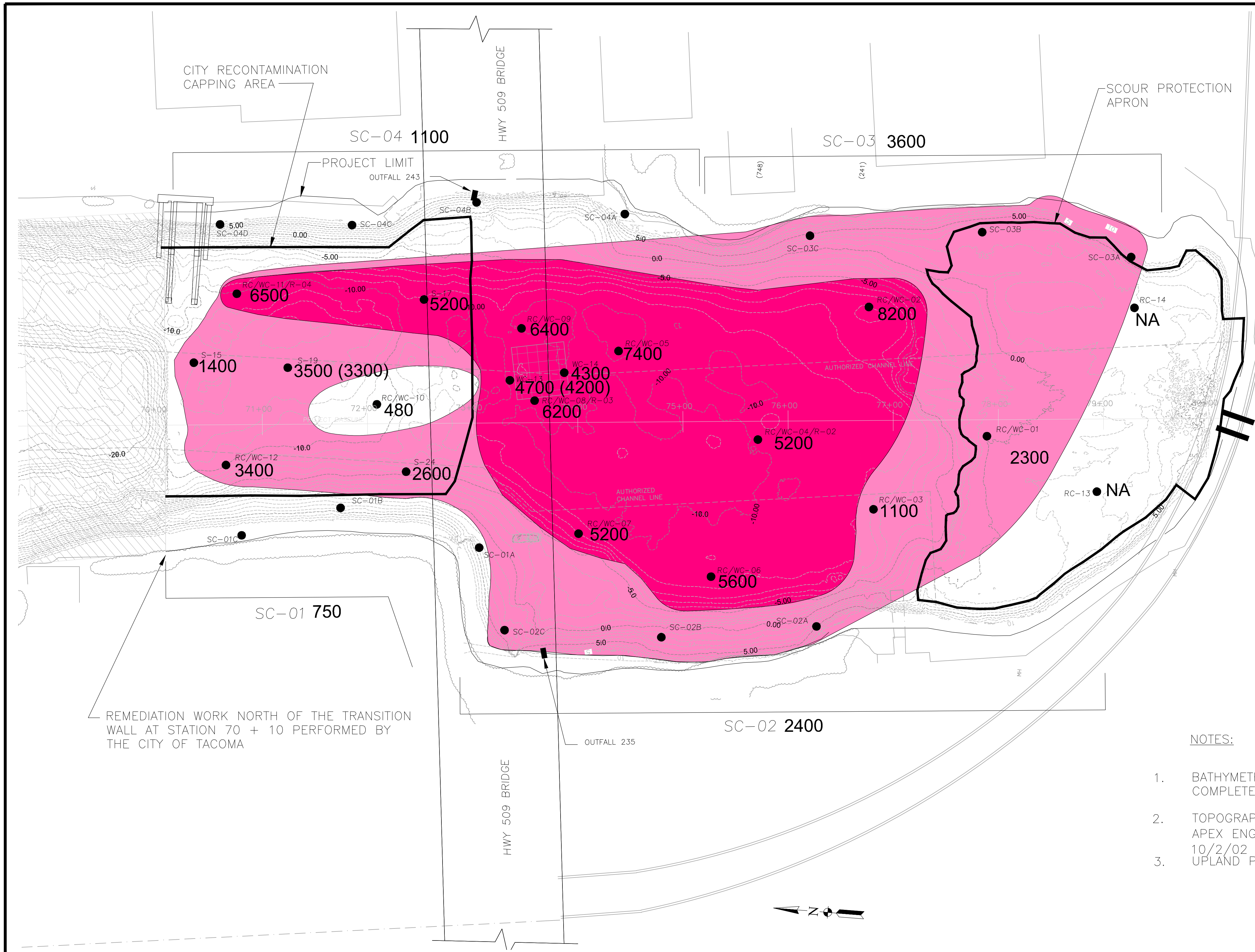
Head of The Thea Foss Waterway
Post-Construction Monitoring

TETRA TECH

Figure 4-1
Thickness (cm) of Material Deposited over the Cap
April 2014

Thea Foss Waterway

P:\2562_THEA FOSS\THEA FOSS\OMMP\YEAR 7\CAD\DWGS-NEW\FOSSFIGURE 4-1.DWG
PLOT/UPDATE: AUG 29 2011 16:44:00



LEGEND:

- - - - - -	MAJOR CONTOUR LINES
(hatched)	CITY OF TACOMA WORK AREA
(grid)	IMPERMEABLE CAP
(dark pink)	[BEHP] > 3,900 μg/kg
(light pink)	[BEHP] > 1,300 to 3,900 μg/kg
BEHP SQO	= 1,300 μg/kg
BEHP	= Bis(2–Ethylhexyl) phthalate
(thick outline)	[HPAH] > 17,000 μg/kg
(outline)	[HPAH] > 10,000 to 17,000 μg/kg
HPAH SQO	= 17,000 μg/kg
HPAH	= High Molecular Weight Polycyclic Aromatic Hydrocarbons
● RC/WC-03	= BEHP CONCENTRATION IN μg/kg
1100	= HPAH CONCENTRATION IN μg/kg ( ) INDICATES A DUPLICATE
NA	= NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

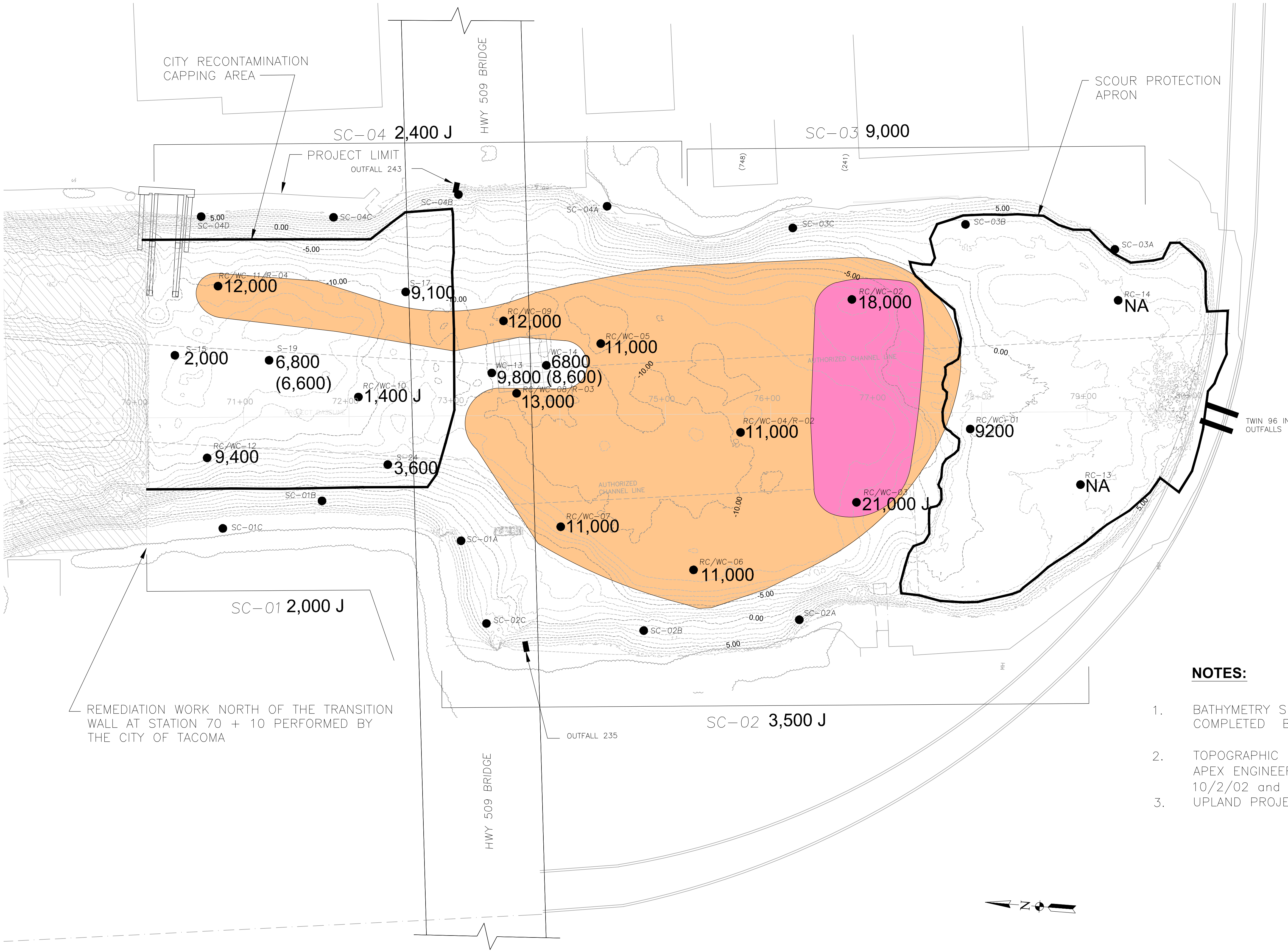
Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-2.DWG
PLOT/UPDATE: Jul. 21, 14 11:18:14 AM

Thea Foss Waterway

Head of The Thea Foss Waterway
Post–Construction Monitoring

TETRA TECH

Figure 4–2
BEHP Concentration
0–10 cm Sediment
April 2014



LEGEND:

---------	MAJOR CONTOUR LINES
(hatched)	CITY OF TACOMA WORK AREA
(grid)	IMPERMEABLE CAP
(pink)	[HPAH] > 17,000 μg/kg
HPAH SQO	= 17,000 μg/kg
(orange)	[HPAH] > 10,000 to 17,000 μg/kg
HPAH	= High molecular weight Polycyclic Aromatic Hydrocarbons
● RC/WC-03 21,000	= HPAH CONCENTRATION IN μg/kg ( ) INDICATES A DUPLICATE
J	= ESTIMATED VALUE
NA	= NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

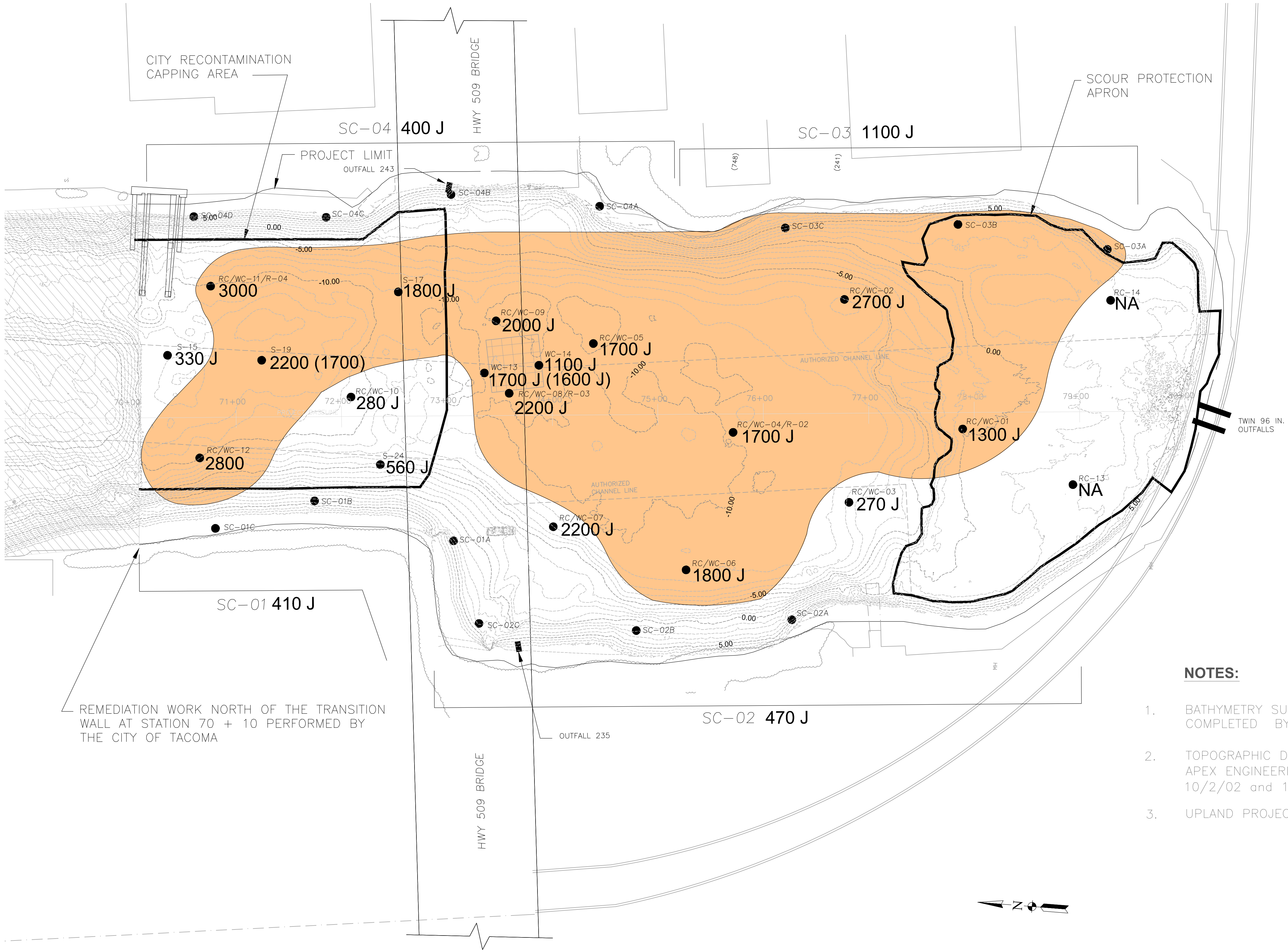
Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-3.DWG
PLOT/UPDATE: Jul. 21, 14 9:53:05 AM

Thea Foss Waterway

Head of The Thea Foss Waterway Post-Construction Monitoring

TETRA TECH

Figure 4-3
HPAH Concentration
0-10 cm Sediment
April 2014



LEGEND:

---------	MAJOR CONTOUR LINES
	CITY OF TACOMA WORK AREA
	IMPERMEABLE CAP
	[LPAH] > 5,200 µg/kg
LPAH SQO	= 5,200 µg/kg
	[LPAH] > 1,000 to 5,200 µg/kg
LPAH	= Low molecular weight Polycyclic Aromatic Hydrocarbons
RC/WC-03 270	= LPAH CONCENTRATION IN µg/kg ( ) INDICATES A DUPLICATE
NA	= NOT AVAILABLE
J	= ESTIMATED VALUE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

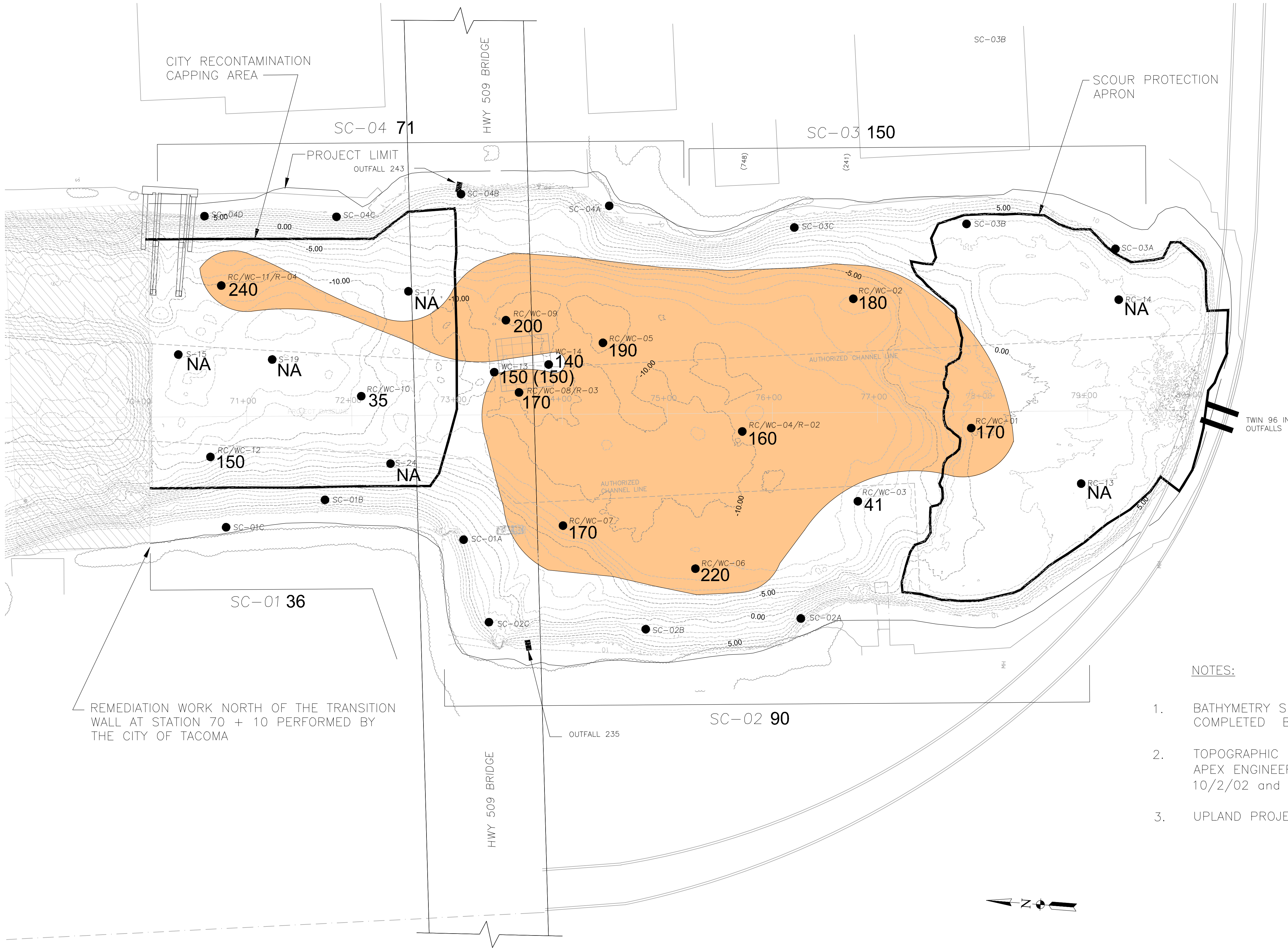
Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-4.DWG
PLOT/UPDATE: Jul. 21, 14 10:14:58 AM

Thea Foss Waterway

Head of The Thea Foss Waterway Post-Construction Monitoring

TETRA TECH

Figure 4-4
LPAH Concentration
0-10 cm Sediment
April 2014



LEGEND:

- MAJOR CONTOUR LINES
- CITY OF TACOMA WORK AREA
- IMPERMEABLE CAP
- [PCB] > 300 µg/kg
- PCB SQO = 300 µg/kg
- [PCB] > 150 to 300 µg/kg

TOTAL PCBs = Total Polychlorinated Biphenyls

RC/WC-07 190 = TOTAL PCB CONCENTRATION IN µg/kg
( ) INDICATES A DUPLICATE

NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

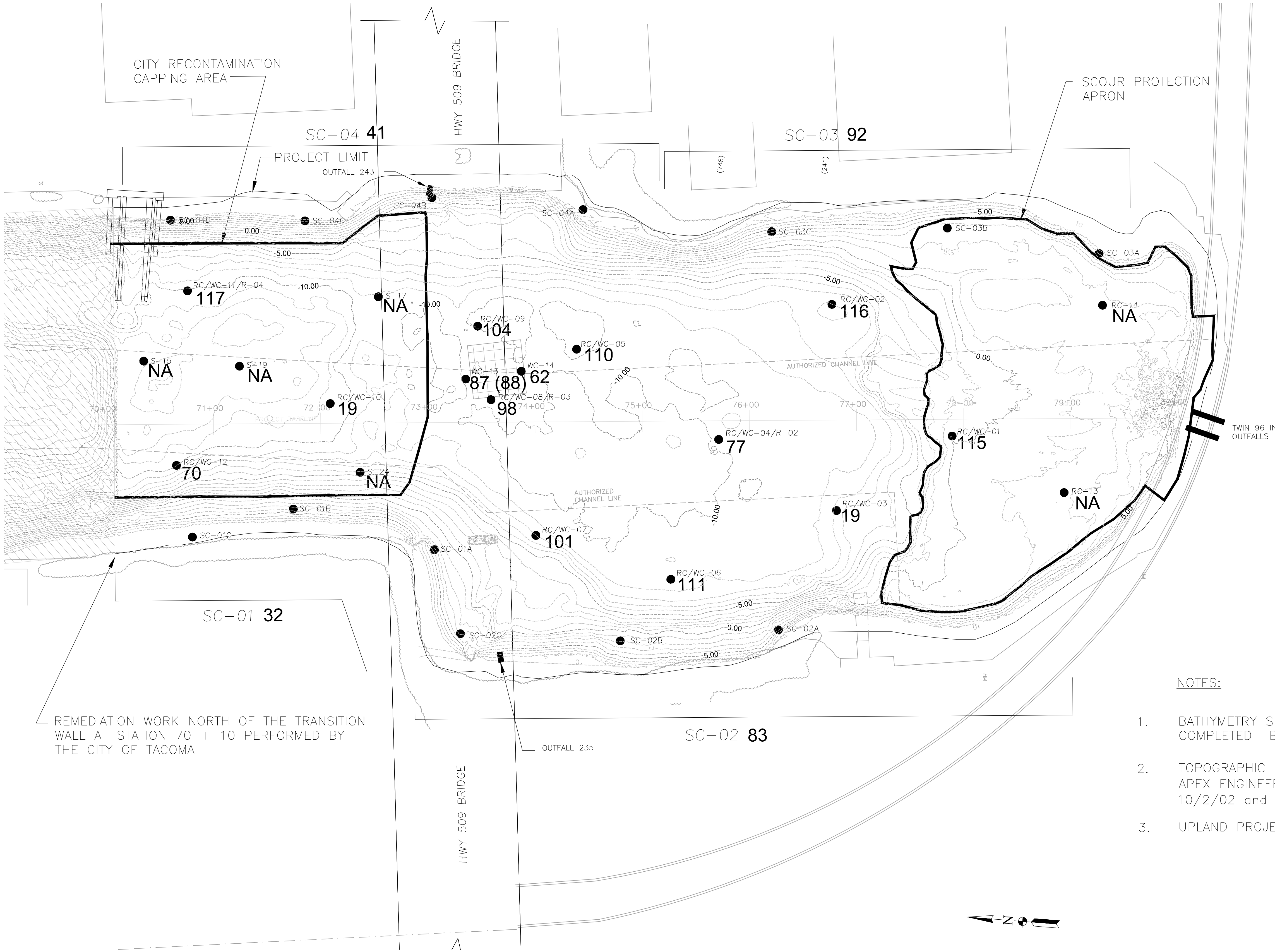
Thea Foss Waterway

Head of The Thea Foss Waterway
Post-Construction Monitoring

TETRA TECH

Figure 4-5
Total PCB Concentration
0-10 cm Sediment
April 2014

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-5.DWG
PLOT/UPDATE: Jul. 16, 14 3:28:26 PM



LEGEND:

- MAJOR CONTOUR LINES
- CITY OF TACOMA WORK AREA
- IMPERMEABLE CAP

LEAD SQO = 450 mg/kg

RC/WC-03 19 = LEAD CONCENTRATION IN mg/kg
( ) INDICATES A DUPLICATE

NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

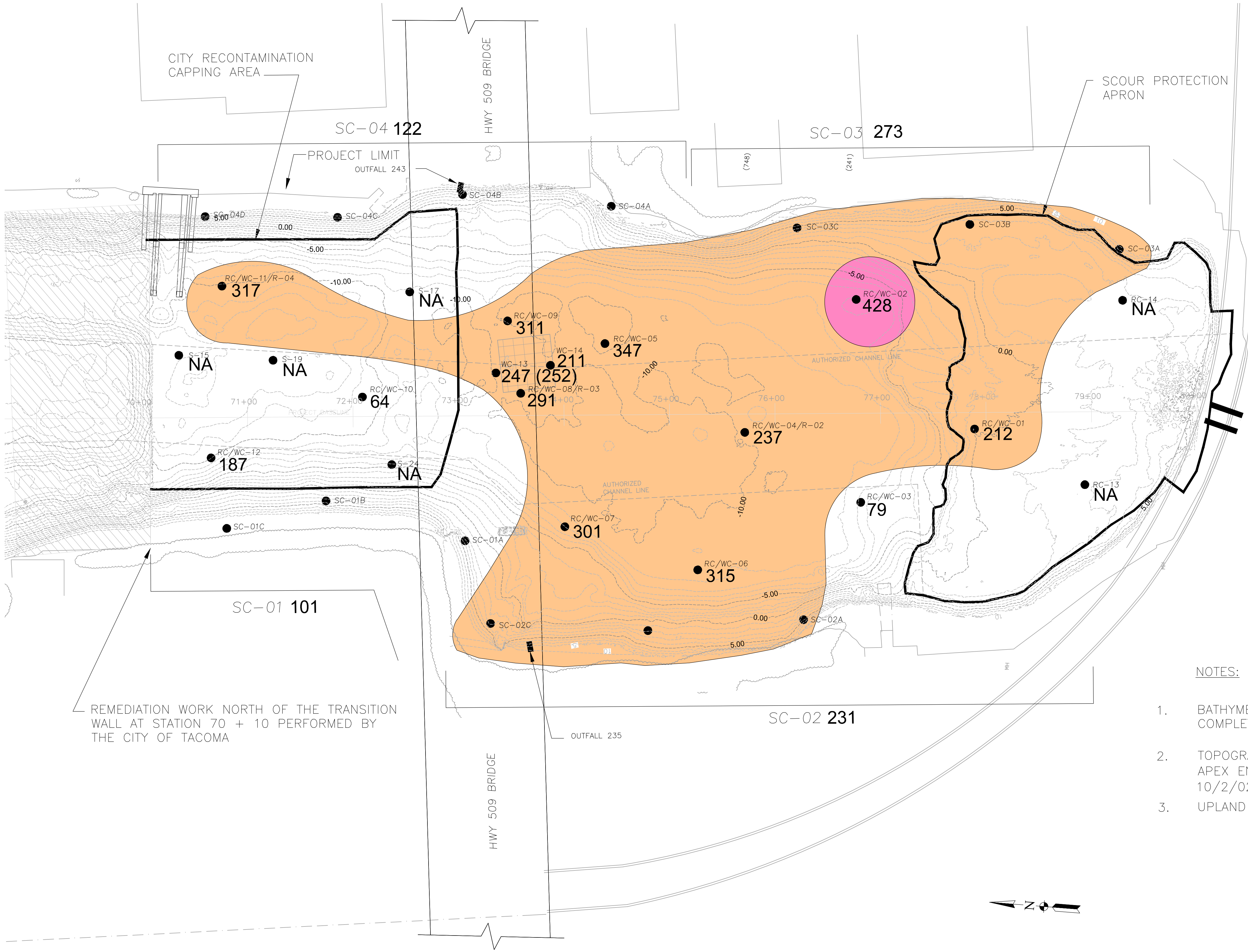
Thea Foss Waterway

Head of The Thea Foss Waterway
Post-Construction Monitoring

TETRA TECH

Figure 4-6
Lead Concentration
0-10 cm Sediment
April 2014

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-6.DWG
PLOT/UPDATE: Jul. 21, 14 10:54:04 AM



LEGEND:

--------	MAJOR CONTOUR LINES
(hatched)	CITY OF TACOMA WORK AREA
(grid)	IMPERMEABLE CAP
(pink)	[ZINC] > 410 mg/kg
ZINC SQO	= 410 mg/kg
(orange)	[ZINC] > 200 to 410 mg/kg
● RC/WC-03 171	= ZINC CONCENTRATION IN mg/kg ( ) INDICATES A DUPLICATE
NA	= NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE 50' 0 25' 50' 100' (IN FEET)

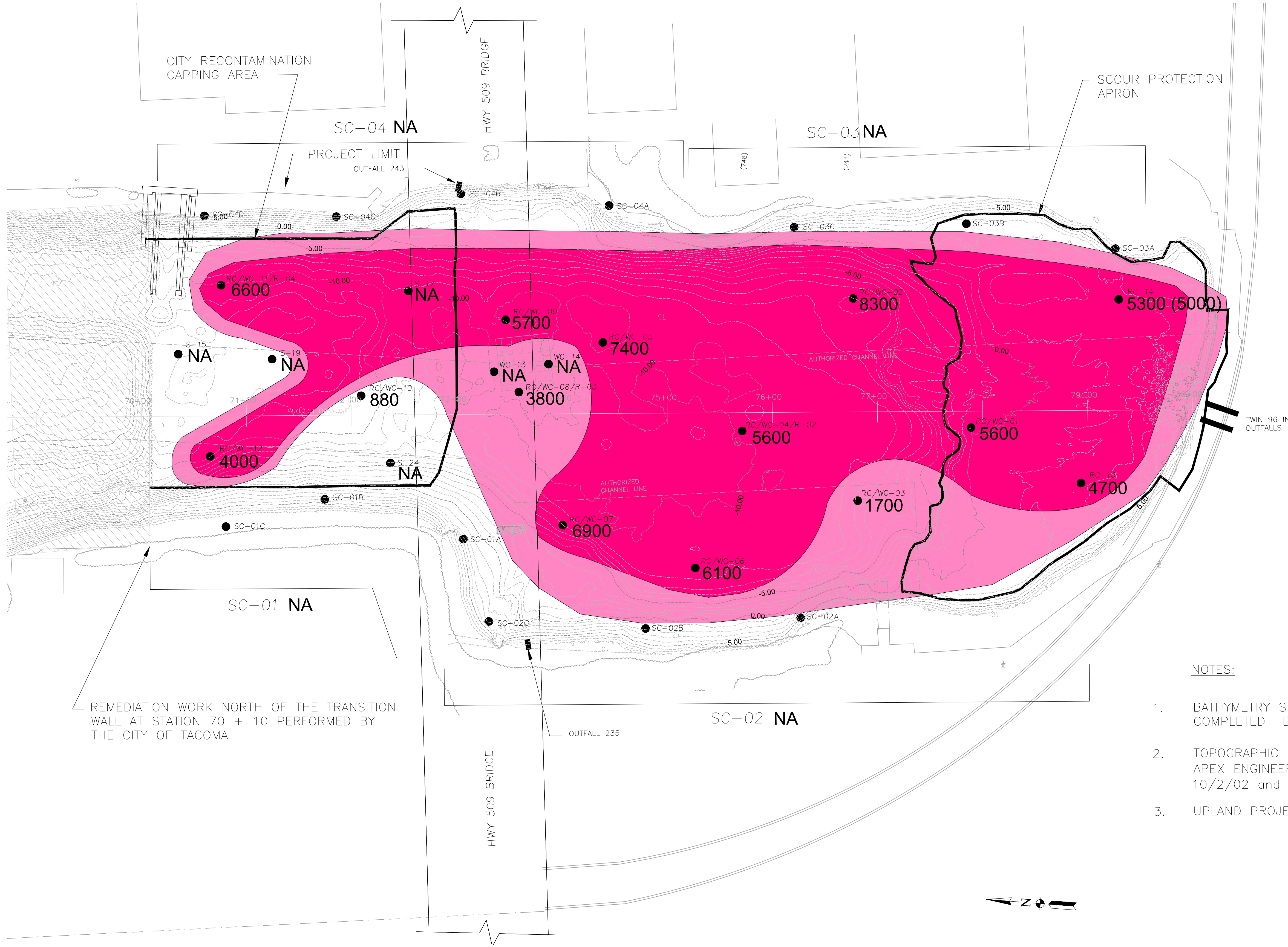
Thea Foss Waterway

Head of The Thea Foss Waterway Post-Construction Monitoring

TETRA TECH

Figure 4-7
Zinc Concentration
0-10 cm Sediment
April 2014

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-7.DWG
PLOT/UPDATE: Jul. 21, 14 11:10:14 AM



LEGEND:

- - - - - - - -	MAJOR CONTOUR LINES
(hatched)	CITY OF TACOMA WORK AREA
(grid)	IMPERMEABLE CAP
(dark pink)	[BEHP] > 3,900 µg/kg
(light pink)	[BEHP] > 1,300 to 3,900 µg/kg

BEHP SQO = 1,300 µg/kg

BEHP = BIS (2-Ethylhexyl) phthalate

● RC/WC-03 1700 = BEHP CONCENTRATION IN µg/kg ( ) INDICATES A DUPLICATE

NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE 50' 0 25' 50' 100' (IN FEET)

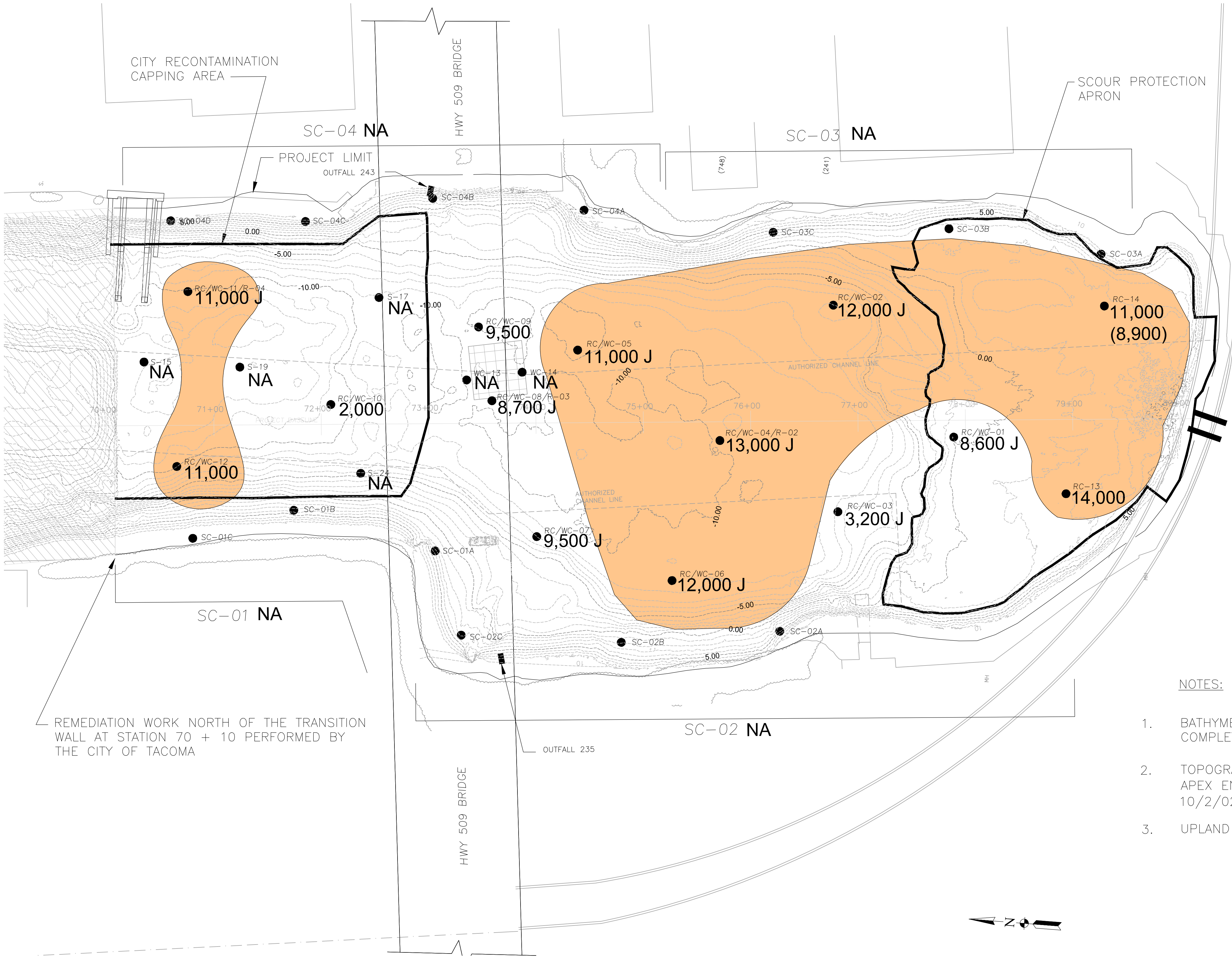
Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-8.DWG
PLOT/UPDATE: Jul. 21, 14 11:13:40 AM

Thea Foss Waterway

Head of The Thea Foss Waterway Post-Construction Monitoring

TETRA TECH

Figure 4-8
BEHP Concentration
0-2 cm Sediment
April 2014



LEGEND:

- MAJOR CONTOUR LINES
- CITY OF TACOMA WORK AREA
- IMPERMEABLE CAP
- [HPAH] > 17,000 μg/kg
- HPAH SQO = 17,000 μg/kg
- [HPAH] > 10,000 to 17,000 μg/kg
- HPAH = HIGH MOLECULAR WEIGHT POLYCYCLIC AROMATIC HYDROCARBONS
- RC/WC-03 14,000 = HPAH CONCENTRATION IN μg/kg
- ( ) INDICATES A DUPLICATE
- NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE 50' 0 25' 50' 100' (IN FEET)

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-9.DWG
PLOT/UPDATE: Jul. 21, 14 11:42:34 AM

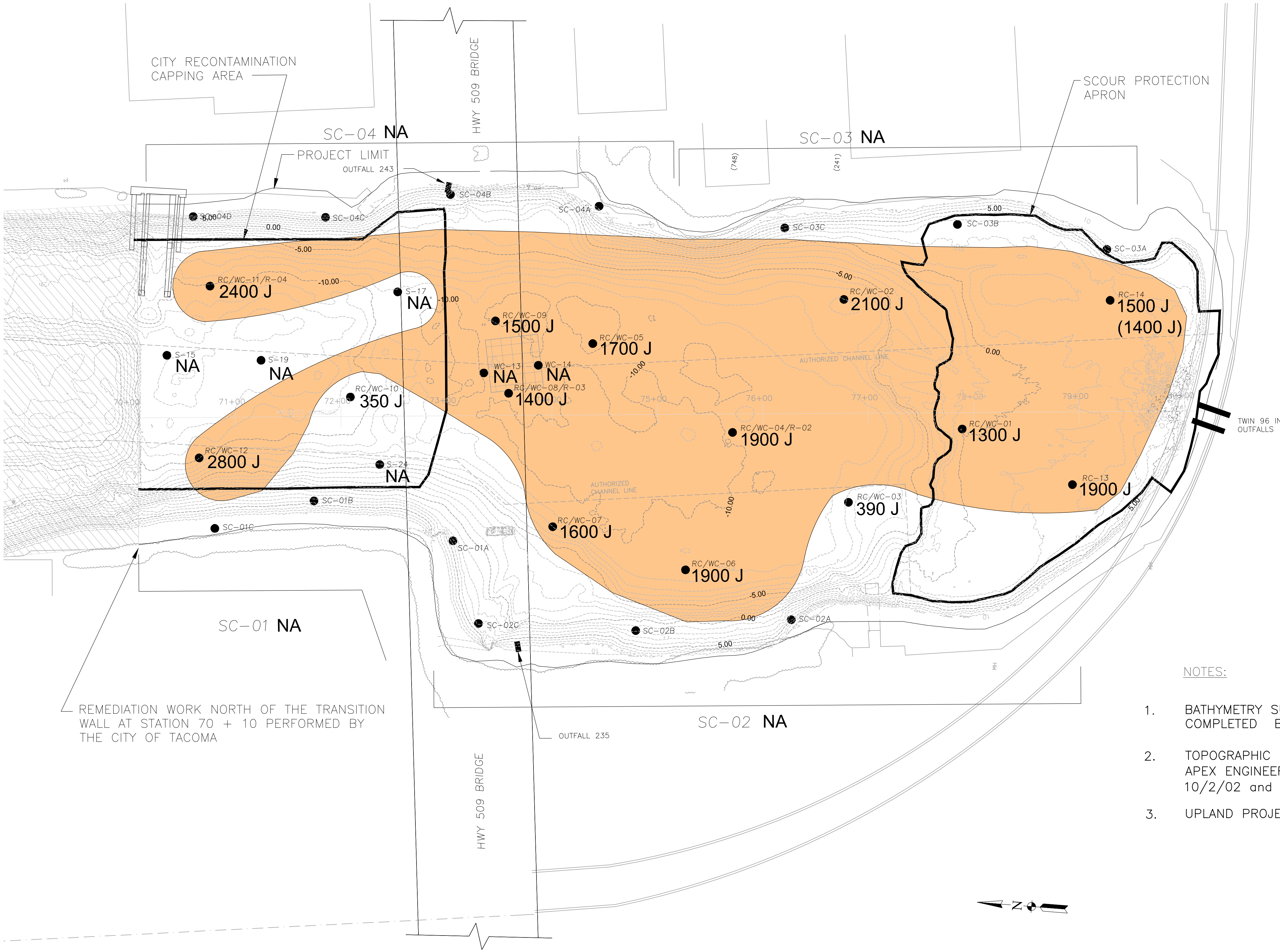
Thea Foss Waterway

Head of The Thea Foss Waterway Post-Construction Monitoring

TETRA TECH

Figure 4-9
HPAH Concentration
0-2 cm Sediment

April 2014



LEGEND:

- MAJOR CONTOUR LINES
- CITY OF TACOMA WORK AREA
- IMPERMEABLE CAP
- [LPAH] > 5,200 µg/kg
- LPAH SQO = 5,200 µg/kg
- [LPAH] > 1,000 to 5,200 µg/kg
- LPAH = Low molecular weight Polycyclic Aromatic Hydrocarbons
- ● RC/WC-03 390 J = LPAH CONCENTRATION IN µg/kg ( ) INDICATES A DUPLICATE
- J = ESTIMATED VALUE
- NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE 50' 0 25' 50' 100' (IN FEET)

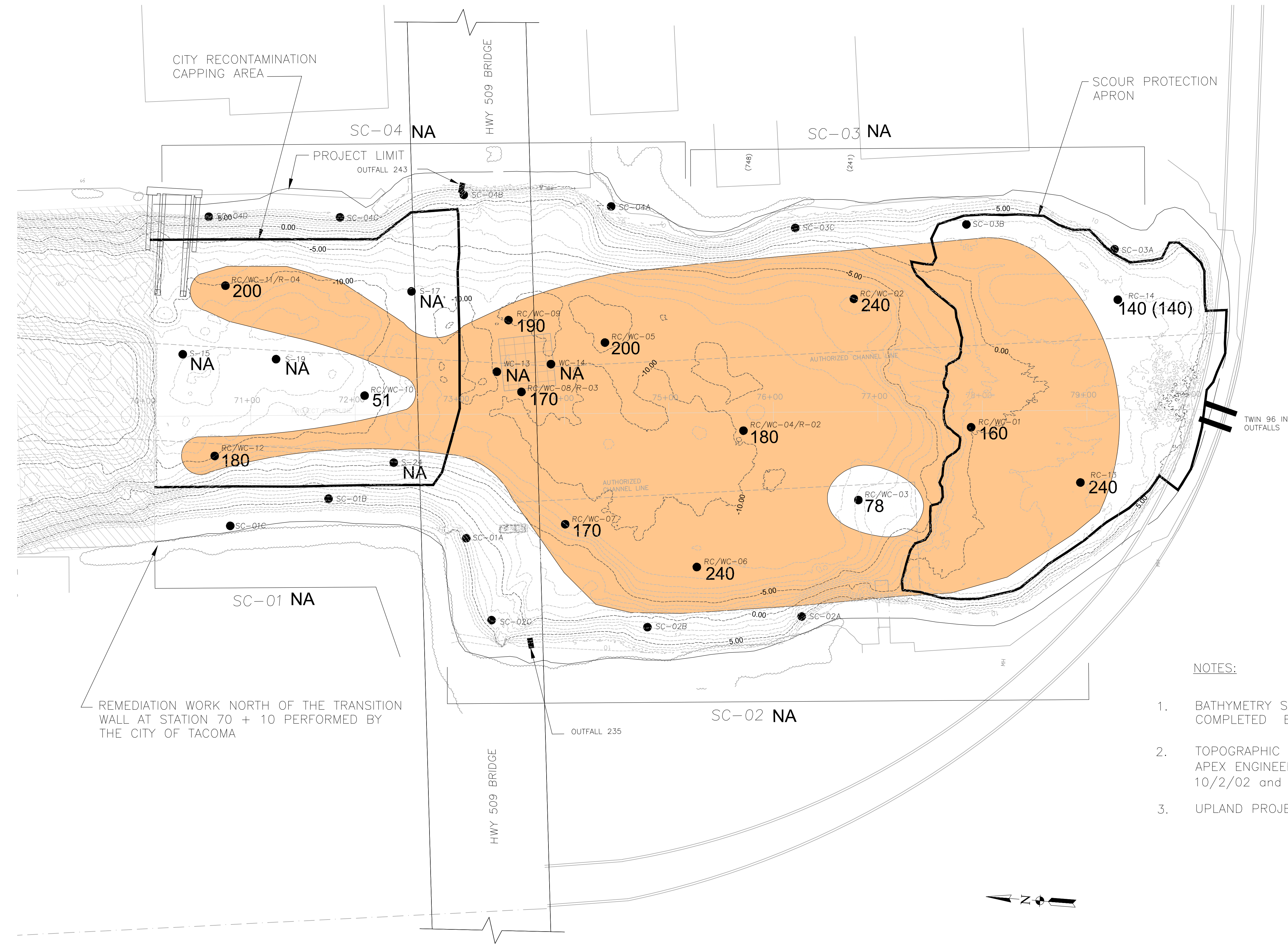
Head of The Thea Foss Waterway Post-Construction Monitoring

TETRA TECH

Figure 4-10
LPAH Concentration
0-2 cm Sediment
April 2014

Thea Foss Waterway

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-10.DWG
PLOT/UPDATE: Jul. 21, 14 4:39:15 PM



LEGEND:

- - - - - - -	MAJOR CONTOUR LINES
(hatched)	CITY OF TACOMA WORK AREA
(grid)	IMPERMEABLE CAP
(pink)	[PCB] > 300 µg/kg
PCB SQO	= 300 µg/kg
(orange)	[PCB] > 150 to 300 µg/kg
TOTAL PCBs	= Total Polychlorinated Biphenyls
● RC/WC-02 200	= TOTAL PCB CONCENTRATION IN µg/kg ( ) INDICATES A DUPLICATE
NA	= NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

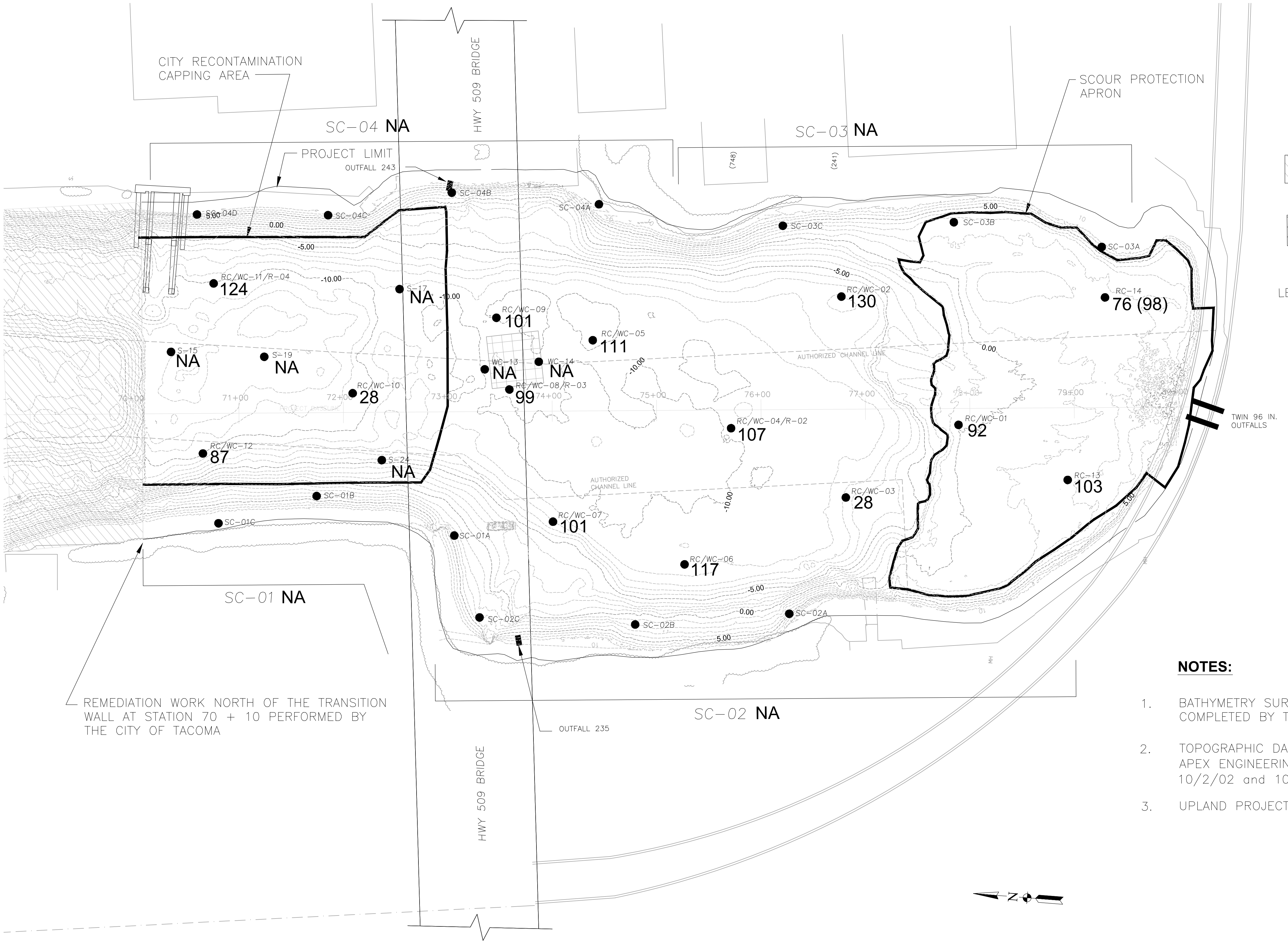
Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-11.DWG
PLOT/UPDATE: Jul. 21, 14 1:13:24 PM

Thea Foss Waterway

Head of The Thea Foss Waterway
Post-Construction Monitoring

TETRA TECH

Figure 4-11
Total PCB Concentration
0-2 cm Sediment
April 2014



LEGEND:

MAJOR CONTOUR LINES

CITY OF TACOMA WORK AREA

IMPERMEABLE CAP

LEAD SQO = 450 mg/kg

RC/WC-03 28 = LEAD CONCENTRATION IN mg/kg
( ) INDICATES A DUPLICATE

NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

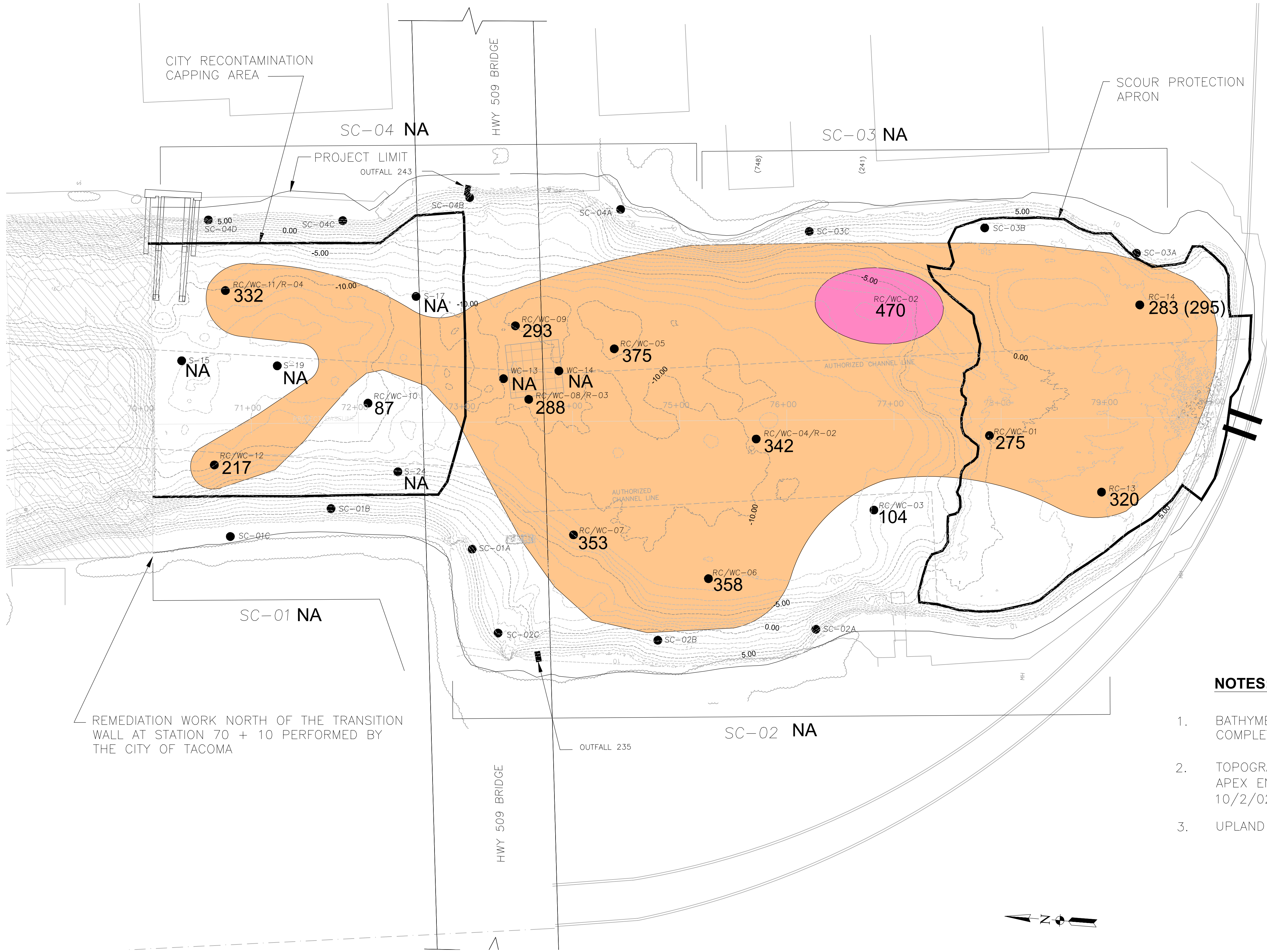
Head of The Thea Foss Waterway
Post-Construction Monitoring

TETRA TECH

Figure 4-12
Lead Concentration
0-2 cm Sediment
April 2014

Thea Foss Waterway

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-12.DWG
PLOT/UPDATE: Jul. 21, 14 2:17:20 PM



LEGEND:

- - - - - - - - MAJOR CONTOUR LINES

CITY OF TACOMA WORK AREA

IMPERMEABLE CAP

[ZINC] > 410 mg/kg

ZINC SQO = 410 mg/kg

[ZINC] > 200 TO 410 mg/kg

RC/WC-02 470 = ZINC CONCENTRATION IN mg/kg
( ) INDICATES A DUPLICATE

NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

Thea Foss Waterway

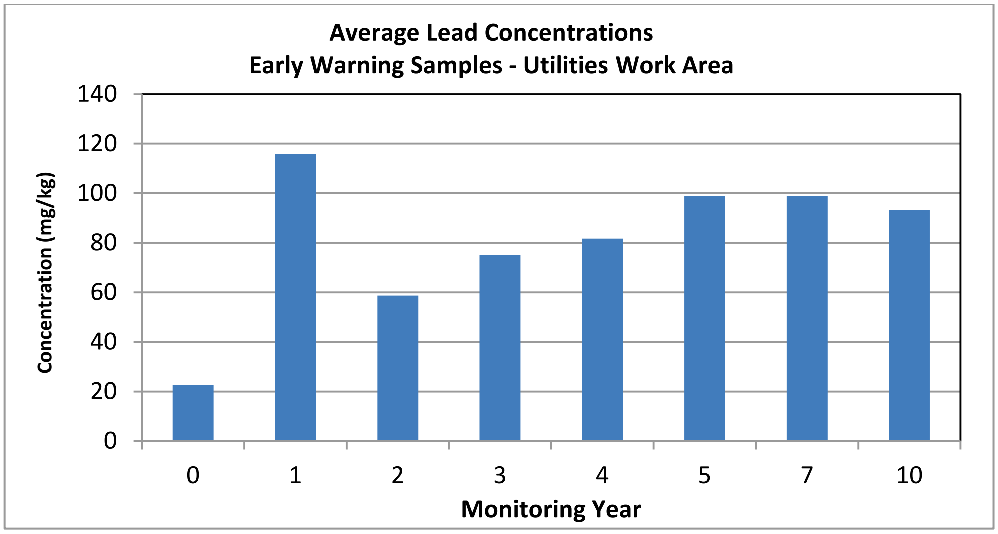
Head of The Thea Foss Waterway
Post-Construction Monitoring

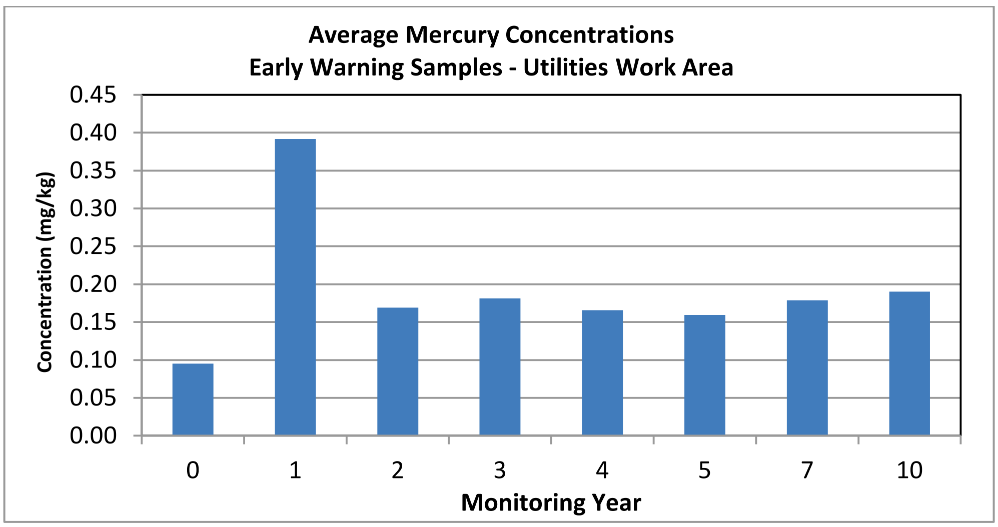
TETRA TECH

Figure 4-13
Zinc Concentration
0-2 cm Sediment

April 2014

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-13.DWG
PLOT/UPDATE: Jul. 23, 14 9:13:40 AM





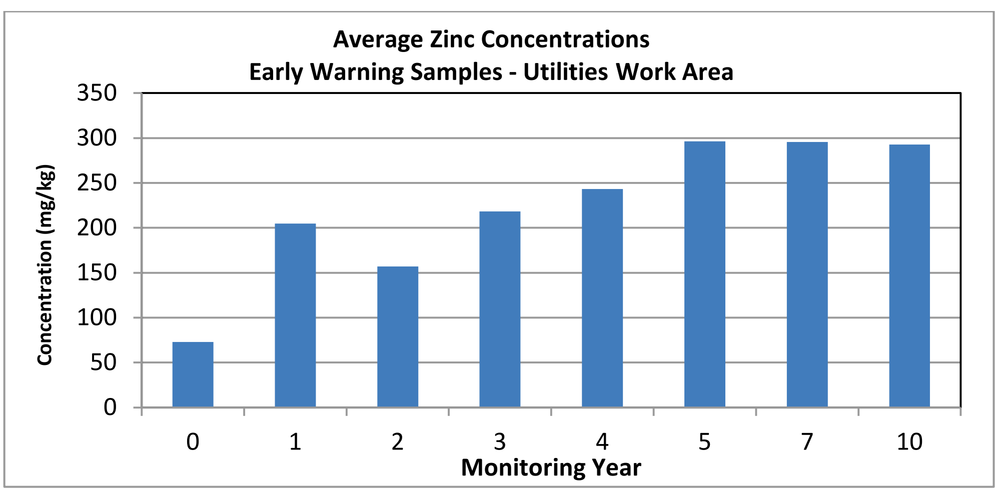
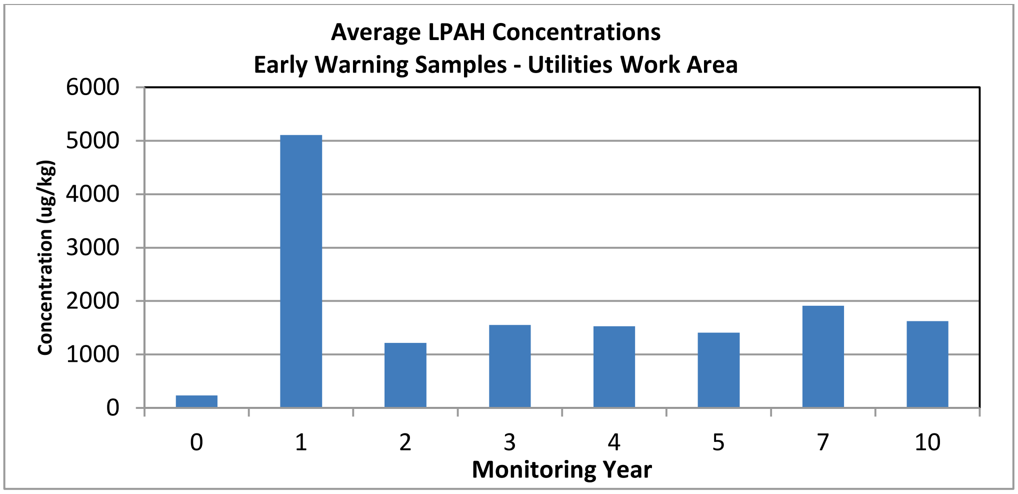
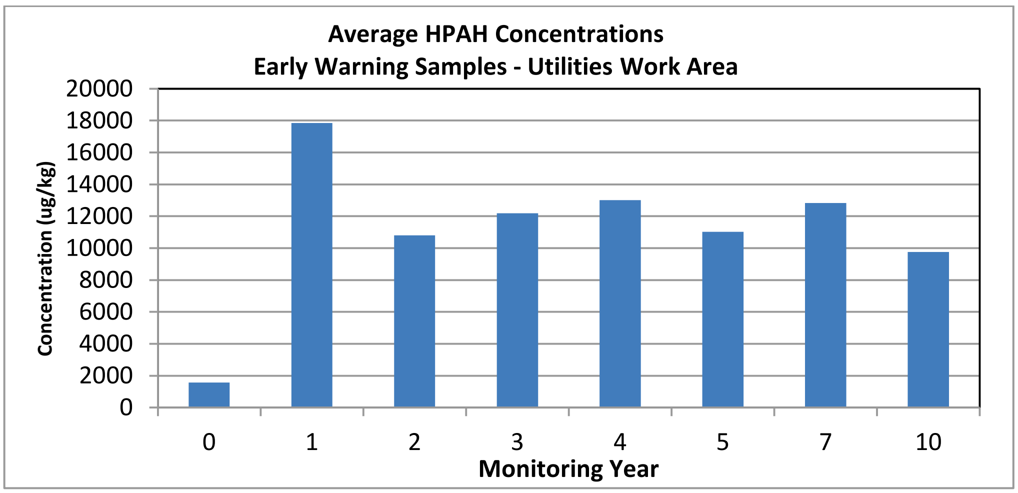


Figure 4-14. Average Concentrations of Early Warning Samples RC-01 to RC-14





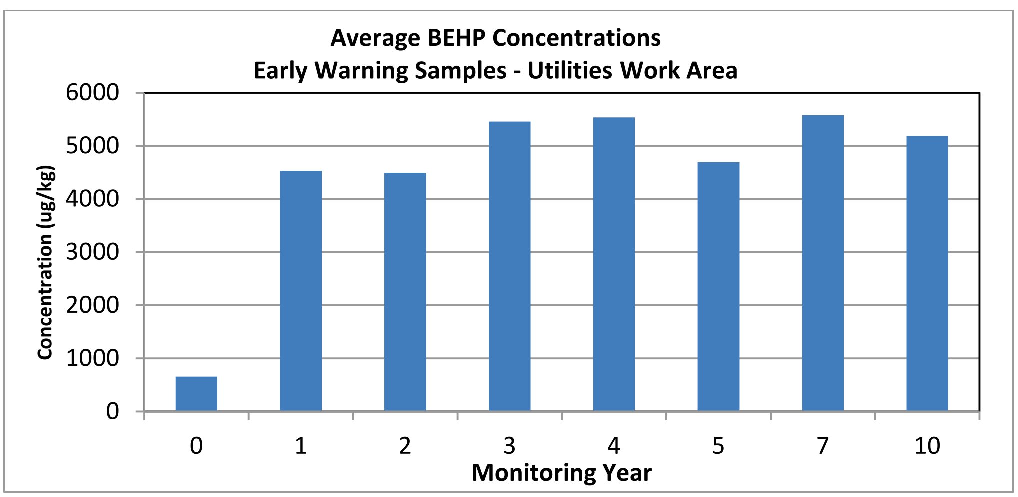
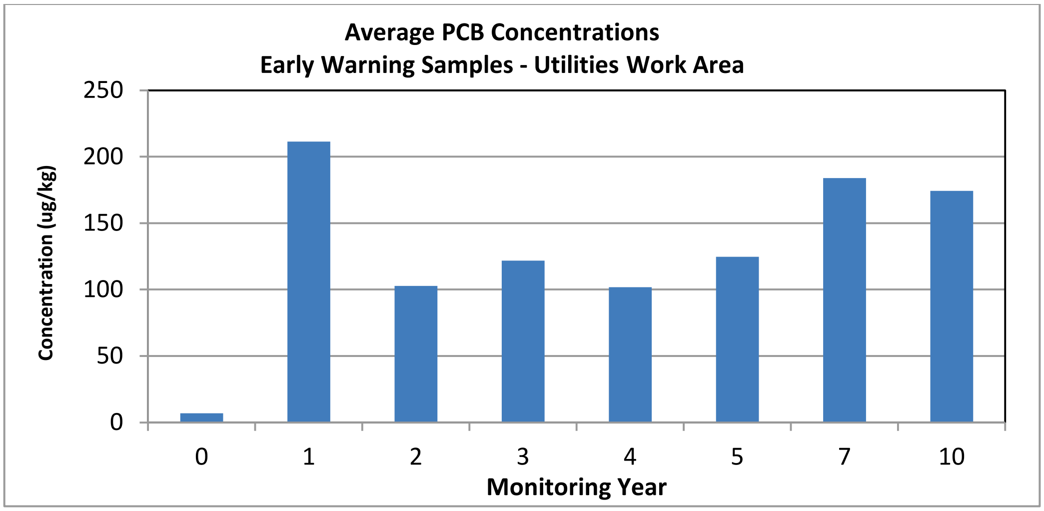


Figure 4-14 page 2



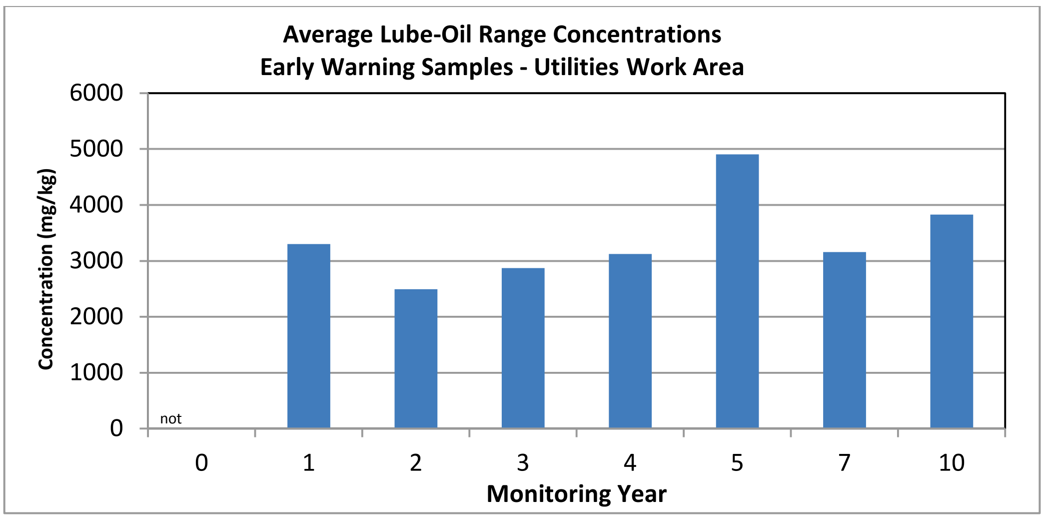


Figure 4-14 – page 3

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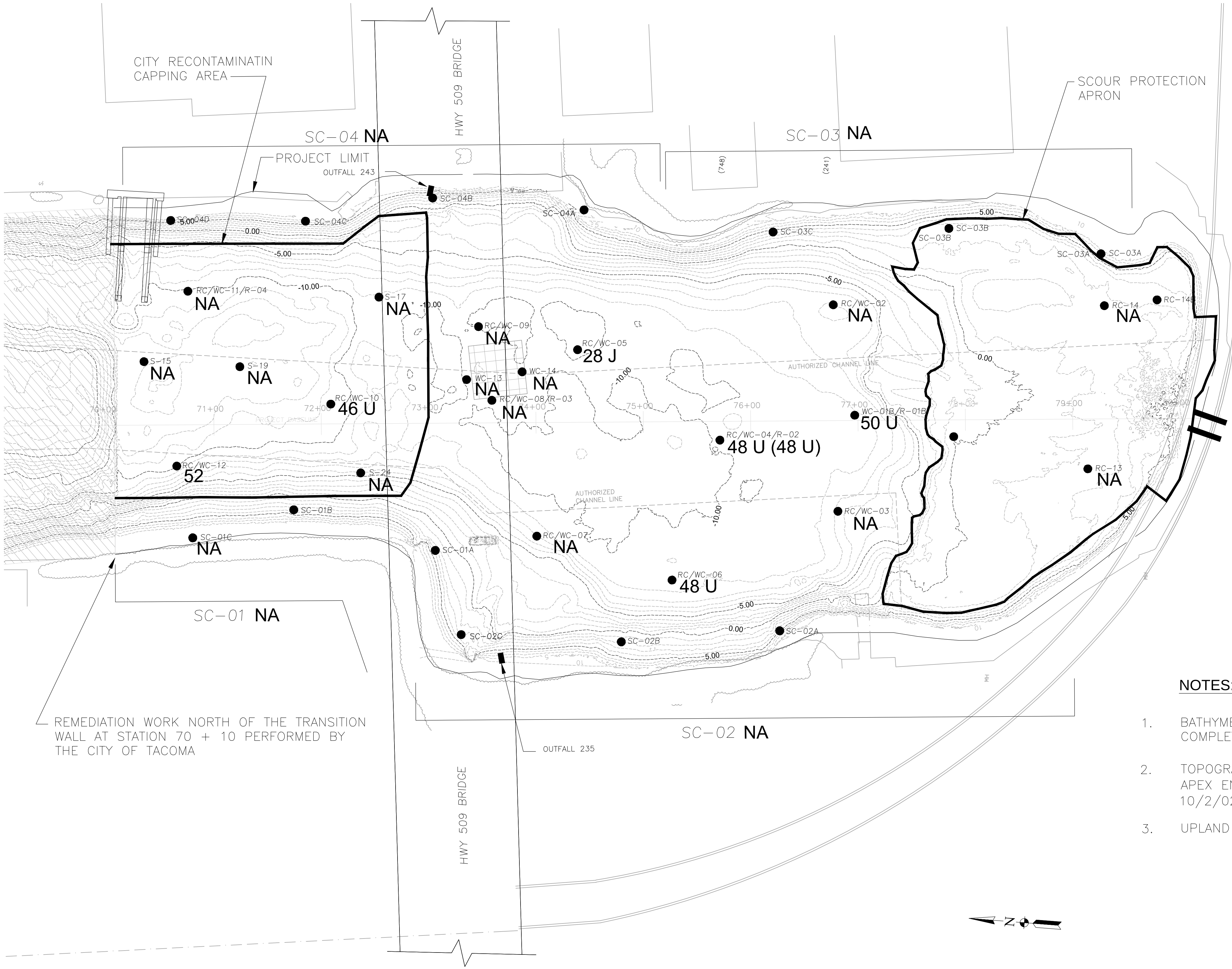


LEGEND:

--------	MAJOR CONTOUR LINES
(hatched)	CITY OF TACOMA WORK AREA
(grid)	IMPERMEABLE CAP
(dark pink)	[BEHP] > 3,900 μg/kg
(light pink)	[BEHP] > 1,300 to 3,900 μg/kg

BEHP SQO = 1,300 μg/kg

BEHP = Bis(2–Ethylhexyl)phthalate

● RC/WC-06 48 = BEHP CONCENTRATION IN μg/kg ( ) INDICATES A DUPLICATE

U = UNDETECTED AT THE REPORTING LIMIT

NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

GRAPHIC SCALE
50' 0 25' 50' 100'
(IN FEET)

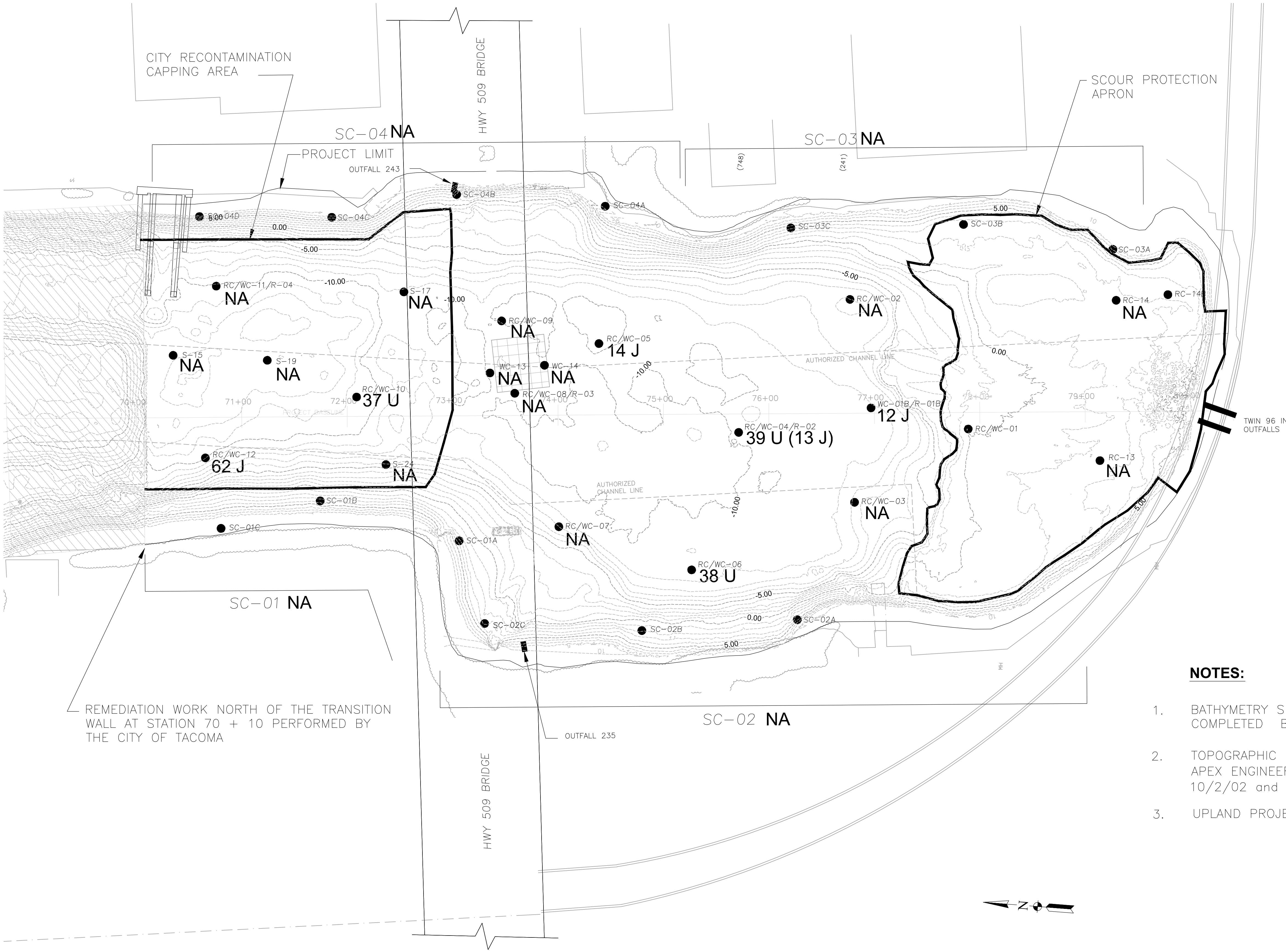
Thea Foss Waterway

Head of The Thea Foss Waterway Remediation Project

TETRA TECH

Figure 4-15
BEHP Concentration
Bottom of Core
April 2014

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-15.DWG
PLOT/UPDATE: Jul. 21, 14 4:15:13 PM



LEGEND:

- MAJOR CONTOUR LINES
- CITY OF TACOMA WORK AREA
- IMPERMEABLE CAP
- [HPAH] > 17,000 µg/kg
- HPAH SQO = 17,000 µg/kg
- [HPAH] > 10,000 to 17,000 µg/kg
- HPAH = High molecular weight Polycyclic Aromatic Hydrocarbons
- RC/WC-06 38 = HPAH CONCENTRATION IN µg/kg ( ) INDICATES A DUPLICATE
- U = UNDETECTED AT THE REPORTING LIMIT
- NA = NOT AVAILABLE

NOTES:

1. BATHYMETRY SURVEY UP TO ELEVATION +5 MLLW COMPLETED BY TETRA TECH ON APRIL 29, 2014.
2. TOPOGRAPHIC DATA SHOWN ABOVE +5 MLLW WAS PROVIDED BY APEX ENGINEERING LLC, DATED 2/7/02, 3/8/02, 5/16/02, 10/2/02 and 10/12/02.
3. UPLAND PROJECT LIMIT IS +12 FEET MLLW.

Z:\PROJECTS\THEA FOSS\YEAR 10\SHEET FILES\FOSSFIGURE 4-16.DWG
PLOT/UPDATE: Jul. 21, 14 4:33:38 PM

Thea Foss Waterway

Head of The Thea Foss Waterway Remediation Project

TETRA TECH

Figure 4-16
HPAH Concentration
Bottom of Core

April 2014

5. RECOLONIZATION

During implementation of the remedy, dredging and capping eliminated non-mobile benthos over approximately 8.8 acres of the Utilities' Work Area. The bottom sediment created by the cap was expected to rapidly recolonize with infauna and epifauna (EPA 2000). In accordance with the ROD, the objective of the recolonization monitoring is to assess the success of the remediation at restoring a healthy benthic community in the waterway.

As part of the Utilities' OMMP, the primary means to evaluate habitat recolonization is through the use of Sediment Profile Imagery (SPI). The secondary method involves the collection and analysis of benthic infauna samples. Recolonization monitoring complements the Cap Integrity and Sediment Quality Monitoring discussed in Sections 2 and 4 of the OMMP.

5.1 SEDIMENT PROFILE IMAGERY

Recolonization is primarily assessed by SPI. As part of the post-construction monitoring required as part of the OMMP Year 10 Monitoring event, Germano & Associates, Inc. (G&A) performed an SPI survey at 18 stations on April 28, 2014.

5.1.1 Methods

The SPI survey uses a specialized camera that photographs the actual sediment profile up to a depth of approximately 20 cm. The photographs allow direct observation of benthic organisms found at the survey sites, as well as the physical conditions within the biologically active sediment zone (upper 10 cm). Color variation within the sediment provides insight on the probable oxidative state of the sediments (aerobic or anaerobic) while the observation of the marine macroinvertebrates facilitates evaluation of the successional stage of the benthic community. The photographs also provide data on the accumulation rate of new sediment and allow a qualitative evaluation of the overall benthic conditions in the Utilities Work Area.

5.1.1.1 Monitoring Frequency and Locations

SPI was conducted in Year 2 (2006), Year 4 (2008), Year 7 (2011), and Year 10 (2014) according to the routine monitoring schedule identified in the OMMP. SPI sampling locations are shown on Figure 2-1. Photographs were obtained at the 14 OMMP compliance locations (WC-01B through 14) and 4 supplemental locations in the area where additional capping material was placed by the City (S-15, S-17, S-19, and S-24). One location on the scour protection apron (WC-01) did not allow for penetration of the camera; the SPI location was moved to station 78+00 and called WC-01B.

5.1.1.2 Field Activities

A Sediment Profile Camera was used in the survey. The camera is designed to obtain *in situ* profile images of the top 20 cm of sediment. SPI photographs are included in Appendix E on CD.

5.1.1.3 Data Analysis

The SPI images were analyzed with the full-color analysis system. In general, three replicate SPI images were obtained and analyzed at each sampling location. Analysis of three replicate images per sample location allows for characterization of any variability in benthic habitat conditions that may exist at relatively small spatial scales (i.e., on the order of a few meters between individual camera drops).

Long term objectives involving this method include comparing measurements obtained from sediment profile images to evaluate benthic habitat conditions, map disturbance gradients, characterize sediment types, evaluate benthic habitat quality and assess benthic recolonization.

SPI parameters estimated and mapped from the SPI images as part of the judgment-based assessment include:

- sediment type determination
- benthic habitat classification
- prism penetration depth
- surface boundary roughness
- infaunal successional stages
- apparent redox potential discontinuity (RPD) depth
- organism-sediment index (OSI)
- statistical comparison of Year 2 OMMP (May 2006), Year 4 OMMP (May 2008), Year 7 OMMP (May 2011) results, and Year 10 OMMP (Aprl 2014)

Details of the assessment are included in the full SPI Survey report in Appendix E.

5.1.1.4 Response Actions

The images collected were of sufficient quality to analyze for all the above parameters. Therefore, confirmation of the SPI survey with analysis of the archived benthic abundance samples was not required.

5.1.2 Results

The primary objective of the Year 10 SPI survey was to assess the success of the remediation at restoring a healthy benthic community in the waterway. The current results were evaluated and compared with the SPI surveys from Year 2 (2006), Year 4 (May 2008), and Year 7 (2011).

While the overall site benthic habitat status and recolonization was not significantly different between the first two surveys, the results from the Year 7survey show a dramatic regression in both habitat conditions and benthic community assemblages with continued retrograde in both habitat conditions and benthic community assemblages in Year 10. While there were some indications of stalled recovery in the Year 4 (2008) survey because conditions were essentially the same as those detected in Year 2 (2006), the profile images from both Year 7 and Year 10 were notably different from those collected during the first two surveys because of the increased deposition of low oxygen/anoxic, fine-grained sediments throughout the area that erased most visible signatures of the capping layer. Given the study area's location and the point sources of input to this system (mainly storm-water outfalls at the head of the waterway as well as on the east and west sides under the SR509 bridge), there appears to be a constant supply of organically enriched material to the study area that will continue to be a stressor to the benthic community.

The differences noted among the Year 2, Year 4, and Year 7 survey results are more exaggerated in the Year 10 results, both in the distribution of sediment grain size at the sediment surface and in the cross-sectional matrix of the sediments observed in the camera prism from the continued sediment deposition. The sediment grain-size at the surface continues to evolve to a finer-grained matrix. Even though there were distinct, detectable layers of mud over the coarse sand/gravel cap in 2006 located north of the SR509 Bridge, the continued deposition of fines along with tidal circulation have obliterated the distinct stratigraphic layering. However the most striking difference in the apparent organic loading is associated with these accumulated fines, resulting in regression of the benthic community successional stages at sampled locations, following the classic response of benthic communities to organic enrichment (Pearson and Rosenberg 1978).

Based on the results of this survey and the comparison to the three previous sets of results, the following conclusions can be made:

1. There continues to be deposition of organically enriched, fine-grained sediment in the area. Without control of the sources of these fine-grained organics to the system, benthic habitat conditions will continue to degrade.
2. More stations are showing the presence of *Beggiatoa* colonies, indicating hypoxic (low oxygen) benthic boundary layer conditions. There were an increased number of locations showing higher sediment oxygen demand, reflecting the eutrophic nature of the waterway.

As concluded in the Year 2, Year 4, and Year 7 SPI studies, the continued deposition of organically-enriched, fine-grained material will serve as a source of stress to the benthic community by maintaining high sediment oxygen demand. While there was not a statistically significant difference in conditions between Year 2 and Year 4, conditions have substantially degraded since Year 4 (see Appendix E; Germono and Associates 2014). It is predicted that the continued deposition of organically-enriched, fine-grained material will not only eliminate any beneficial effects from the initial capping operations, but it will most likely continue to contribute to eutrophic conditions on the seafloor and lead to increased occurrence of sulfur-oxidizing bacterial colonies of *Beggiatoa* spp. at additional locations in the waterway as time goes on which would indicate continued degradation of the benthic conditions. These white, filamentous bacterial colonies only appear at the sediment surface when dissolved oxygen concentrations in the benthic boundary layer drop below 1 mg/L (Rosenberg and Diaz 1993).

5.2 BENTHOS

Five replicates were collected at four stations (R-01 through R-04) for benthic abundance. These samples were screened in the field on a 1 mm mesh screen, fixed in a 10 percent formalin solution, and archived for potential future analysis.

6. RECONTAMINATION EVALUATION AND INTERPRETATION

Available data indicate that the top of the Utilities' cap has been recontaminated at levels above the Commencement Bay-Nearshore/Tideflats SQOs. BEHP exceeds the SQOs by the greatest degree and over the widest area. Several individual PAHs, total HPAHs, benzyl alcohol, and benzoic acid also exceed their respective SQOs at one or more locations. The greatest exceedance of the SQOs occurs at sample location RC/WC-02; BEHP was measured at 8,200 µg/kg with an EF of 6.3.

As discussed above in Section 4, a temporary dredging recontamination source was identified in late 2004 (DOF 2005). The area impacted by the dredging recontamination was capped by the City in December 2005 and the Utilities' OMMP was revised to account for the presence of this recontamination.

Ongoing sources of recontamination are discharges from stormwater outfalls. In Year 2, a thorough evaluation of the recontamination issue was conducted by DOF. The evaluation included the review and analysis of a variety of data and concluded that stormwater outfalls that discharge to the head of the waterway were the source of the recontamination. The Year 2 study is documented in Appendix J of the Year 2 OMMP report (DOF 2006). An evaluation of the source of recontamination based on the Year 10 data was prepared by DOF and is contained in Appendix I of this report.

Figure 6-1 illustrates how thicknesses of accumulated fine-grained sediment varied between Year 2 and Year 10. At most locations south of the bridge, the greatest thickness of accumulated sediment was measured in Year 7. By Year 7, the average thickness was greater than 25 cm in the turning basin. At two locations south of the bridge, the thickness decreased in 2014 (RC/WC-03 and RC/WC-06). At three locations, the bottom of the fine-graned sediment was not found in either Year 7 or Year 10 (RC/WC-02, RC/WC-04, and RC/WC-05). Thicknesses of fine-grained sediment were lower north of the bridge where capping work was completed by the City in 2005 (between Year 1 and Year 2 monitoring) to resolve the dredging recontamination issue. Sediment thicknesses north of the bridge in the City capping area have generally increased as well with the exception of location RC/WC-10. Accumulation of sediment appears to be occurring beneath the SR 509 Bridge and along the eastern bank. At most locations within the turning basin, the sediment thickness of material deposited over the cap increased steadily.

Figure 6-1 also shows the average percent fines content and total organic carbon content (TOC) of early warning sediment samples collected in the turning basin between Year 1 and Year 10. The percent fines content ranged between approximately 22 and 74% while TOC ranged between approximately 3 and 9%. The highest average percent fines were observed in Year 5 while the highest average TOC content was observed in Year 7.

As noted in previous reports, the accumulated fine-grained sediment is distinctly different from the more granular underlying capping material. The capping material contains generally less than 4 percnet fines and a substantially lower TOC content when compared to results observed from accumulated sediment. The waterway capping material is composed of clean, silty sand mixed with an organic carbon source to increase the TOC content of the cap. Testing of core samples soon after the cap was installed indicated a TOC content of approximately 0.4% (DOF 2004). This compares with a fines content of up to 74 percent (RC-06) for accumulated sediment in the Utilities' Work Area. The average TOC content of early warning sediment samples collected between Year 1 and Year 10 is approximately between 4.5 and 8% (Figure 6-1).

The source of accumulated fine-grained sediment above the capping material is predominantly stormwater that discharges to the head of the waterway. This finding is based on comparison of the chemical quality of the accumulated fine-grained sediment with the stormwater sediment (collected by in-line sediment traps) that discharges to the waterway. Stormwater sediment contains a typical suite of chemicals. These chemicals include petroleum hydrocarbons, metals, and organic chemicals such as PAHs and phthalates. Pesticides and PCBs are also commonly detected in stormwater sediments.

Previous analyses (DOF 2006, 2007, 2008, 2009, and 2011) documented a high correlation between HPAHs and BEHP in surface sediment samples collected within the Utilities' Work Area and a similarity in trends between the surface sediment and stormwater sediment discharged to the head of the waterway. The high correlation (R=0.82) in the Year 10 sediment samples is illustrated on Figure 6-2. Figure 6-2 also shows how the Year 10 early warning sample results compare with the results of samples analyzed between Year 0 and Year 10. These data continue to support that BEHP and HPAH are derived from a similar source (i.e., stromwater). The HPAH and BEHP trend relationship in early-warning sediment samples is similar to the trend relationship of stormwater sediment samples collected near the end of the Twin 96 outfalls. These data indicate that the Twin 96 outfalls are the primary source of PAHs and BEHP to the Head of the Thea Foss Waterway.

Additional details of this evaluation are included in Appendix I.

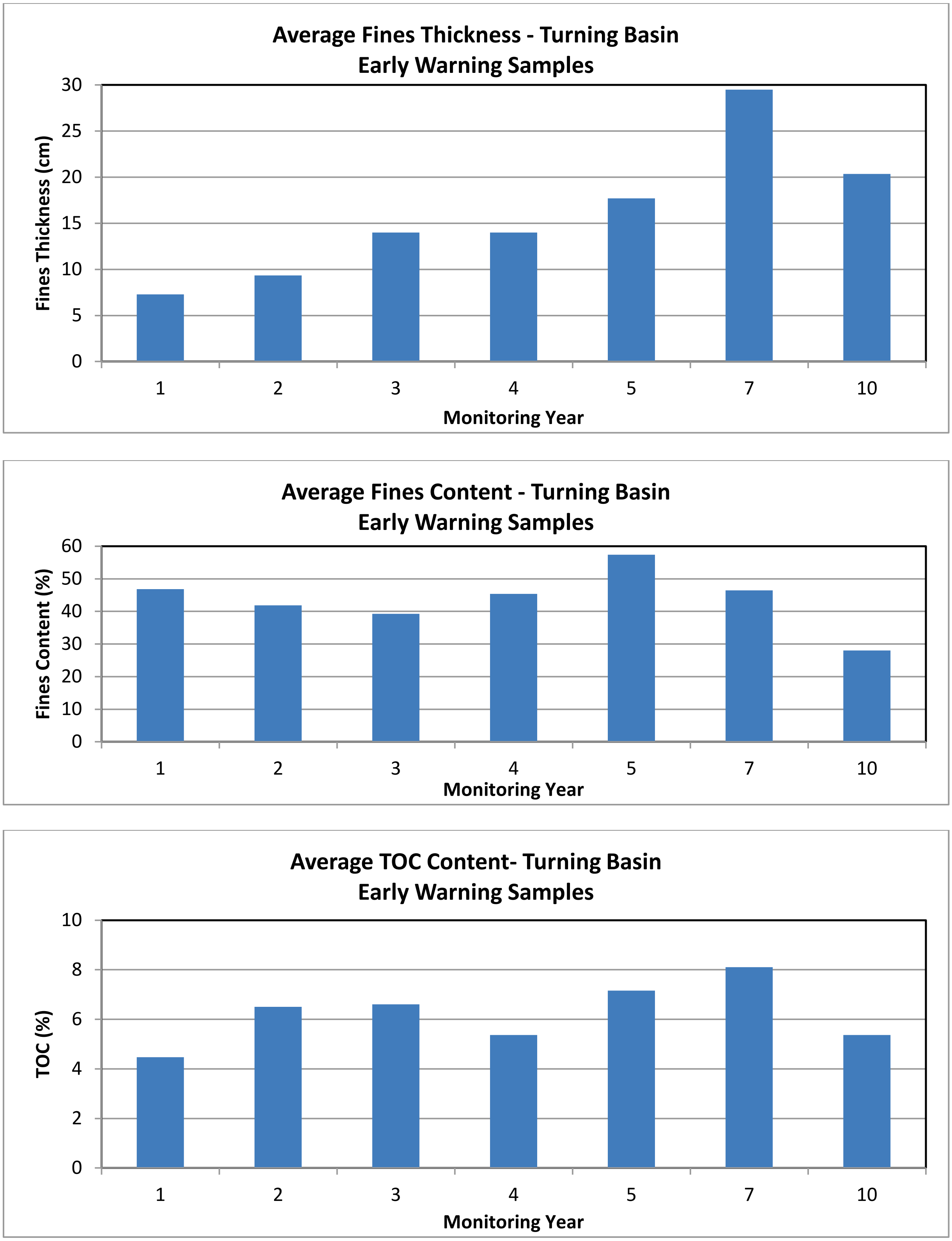


Figure 6-1. Characteristics of Early Warning Sample Sediment

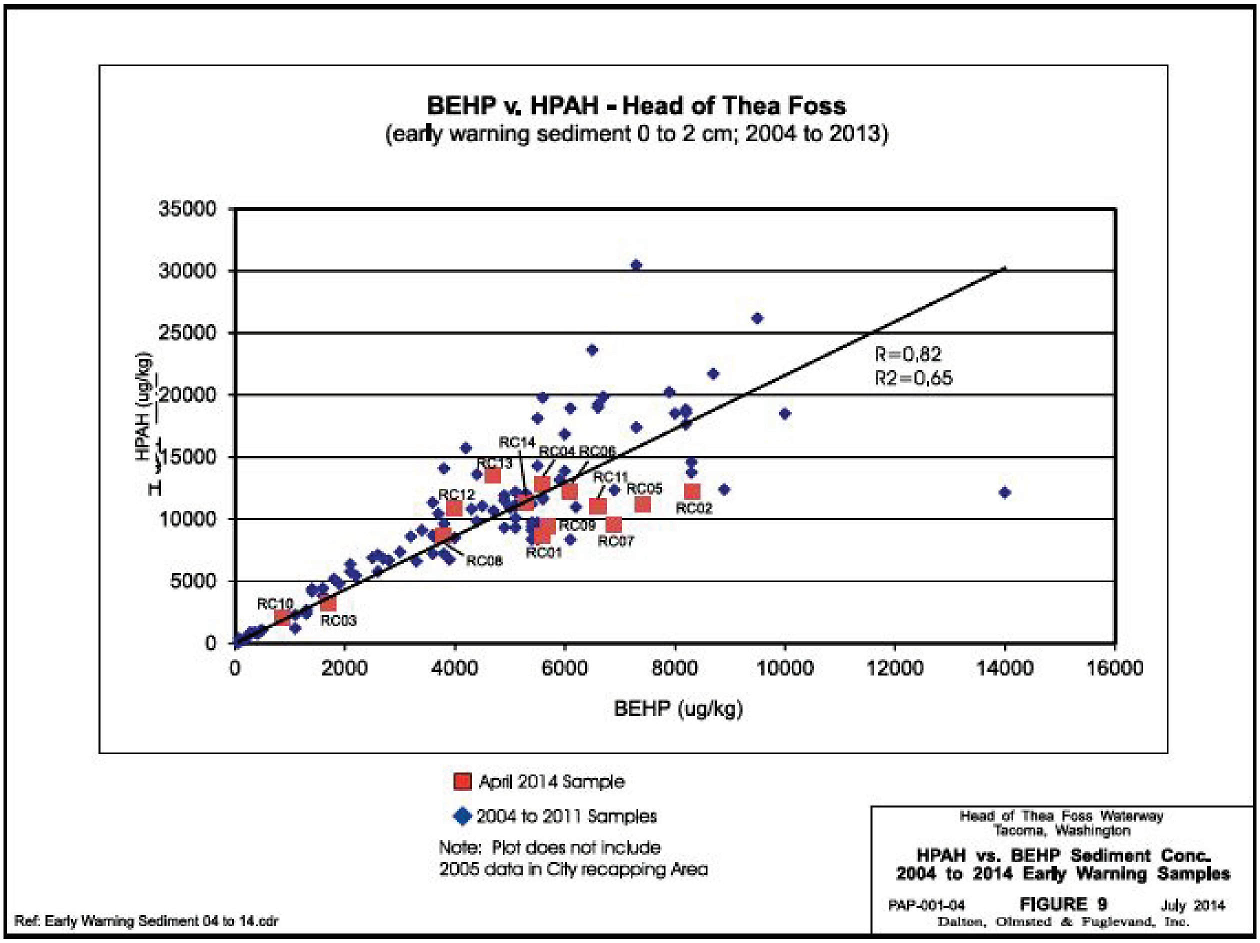


Figure 6-2. HPAH vs. BEHP Sediment Concentrations Year 0-10 Early Warning Samples

7. EVALUATION OF THE MONITORING PROGRAM

Remediation of the Utilities' Work Area was completed with final placement of capping material in February 2004. OMMP sampling was completed in Year 0 – baseline (April 2004), Year 1 (May 2005), Year 2 (May 2006), Year 3 (May 2007), Year 4 (May 2008), Year 5 (May 2009), Year 7 (April 2011), and Year 10 (April 2014). No sampling was conducted during Year 6, 8, or 9, as per the OMMP schedule, however, based on the physical observations made during the Year 5 monitoring, the slope armor and outfall scour protection adjacent to Outfall 235 was restored during Year 6 and visual inspections of the remaining cap, slopes and outfall scour protection were also made annually through Year 10.

The Utilities' sampling in Year 10 consisted of recolonization monitoring by collecting benthic infauna samples and SPI samples, collecting waterway cap compliance samples (0 to 10 cm), City samples (0 to 10 cm), slope cap composite samples (0 to 10 cm), early-warning top-down recontamination samples (0 to 2 cm), and core "bottom up" samples. Physical observations for the 10 years of OMMP monitoring included visual inspections of the cap at low tide and hydrographic surveys. The physical observations/measurements and sediment chemistry data from cores indicate the Utilities cap is functioning as intended as summarized below.

- Overall, the physical and visual observations indicated that the scour protection apron is functioning as intended. No obvious signs of significant erosion were observed in any monitoring year. Side slopes show no visible evidence of slope erosion, sloughing, etc. Visual observations during low tides of the former SR 509 seep area indicate the impermeable cap is preventing the upward migration of tar that would cause visual sheens. Additionally, the bathymetry surveys have revealed the sediment cap to be relatively stable. While significant compaction of the sediment cap south of the bridge was seen in the comparison between the Year 2 (2004) and Year 4 (2006) surveys, the cap now appears to be fairly stable since Year 7 (2011). Continued deposition is occurring on the east side of the waterway in the turning basin near the scour protection apron below the Twin 96-inch outfalls. Although some erosion occurred between Year 4 and Year 7 near the marina, that area appeared to be relatively stable between Year 7 and Year 10. However, there is some minor erosion occurring on the west side of the waterway under the SR 509 Bridge extending along the shoreline and at the base of the bridge pillar as well as along the eastern shoreline from the turning basin up to the marina.
- The core logs and grain size analyses indicate that the minimum cap thickness of three feet was present within the Utilities Work area in Year 7. At most core

locations in Year 10, the cap thickness was observed to be greater than an average of 2.7 feet. Silt was encountered below the 3-foot thick cap at WC-05. Although sand was found at the bottom of the other 5 cores, the sand was dark gray to black at three locations (WC-04, WC-10, and WC-12), indicating a transition zone between the sand cap material and native material underneath with thicknesses of 2.6 feet, 3.7 feet, and 2.4 feet, respectively.

- Despite the darker color and higher fines concentrations in the lowest core increments as compared to clean cap material, no concentrations exceeded an SQO in any of the intervals analyzed from the six core samples. This indicates that there is no evidence of bottom-up recontamination and the cap is performing as designed.
- The additional cap material placed by the City in the area north of the bridge in December 2004 appears to be effectively isolating the recontamination caused by dredging activities.

Over the 10 years of OMMP monitoring, the top of the Utilities cap has been recontaminated from top-down sources. Available data indicate that discharges from stormwater outfalls in the head of the waterway are the source of the recontamination. This finding is based on the following lines of evidence with a detailed discussion included in Appendix I:

- Fine grained sediment, distinctly different from the Utilities' capping material, has accumulated on top of the capping material. This finer grained sediment contains contaminants typical of stormwater discharages. The stormwater outfalls are the only identified significant source of this fine-grained deposited material.
- Early-warning samples contain SQO exceedances of BEHP throughout the Utilities' Work Area. Thirteen of the fourteen Year 10 early-warning samples (0 to 2 cm) consisting of the accumulated sediment contained BEHP concentrations above the SQO of 1,300 µg/kg. PAHs were also detected in early warning samples at concentrations exceeding SQOs at locations in the Utilities' Work Area (i.e., RC-01, RC-02, RC-04, RC-09, and RC-12).
- The compliance samples collected south of the bridge in Year 10 exceeded the BEHP SQO (1,300 µg/kg) at six of the seven stations. BEHP concentrations ranged between approximately 1,100 µg/kg to 8,200 µg/kg.
- Average concentration of BEHP in the compliance samples throughout the Utilities Work Area have generally increased from Year 2 to Year 10 with a peak in Year 7 and a slight decrease in Year 10.
- With the exception of 1 sample, WC-10, all compliance samples and City samples collected from the area where additional capping material was placed by the City in

the area north of the bridge in December 2004 contained BEHP at concentrations that exceed its SQO.

- BEHP exceeded the SQO in 2 of the 4 slope cap samples and was measured at 3,600 μg/kg in the intertidal slope cap composite sample collected on the east side of the Head of the Waterway from sample SC-03. This was the highest concentration of BEHP detected in the slope cap samples and was substantially less than the Year 4 sampling result of 14,000 μg/kg at this same location.
- PAHs also exceeded their respective SQOs in WC-02.
- High correlations and similar concentration trends between HPAHs and BEHP in early warning sediment samples between Year 0 and Year 10 indicate a similar source.
- The data showing the similarity of the HPAH and BEHP relationship in early warning sediment samples with the relationship of stormwater in-pipe sediment-trap samples collected near the end of the Twin 96-inch outfalls indicate that the Twin 96-inch outfalls are the primary source of PAHs and BEHP to the Head of the Thea Foss Waterway.
- In general, the average concentrations of individual PAHs, total HPAHs, and BEHP in the compliance samples have continued to rise, although PAH and BEHP concentrations may be starting to stabilize.

SPI results indicate that the continued deposition of organically-enriched, fine-grained material will serve as a source of stress to the benthic community by maintaining high sediment oxygen demand. While there was not a statistically significant difference in conditions between Year 2 and Year 4, conditions have substantially degraded sinceYear 4. The continued deposition of organically-enriched, fine-grained material will not only eliminate any beneficial effects from the initial capping operations, but it will most likely continue to contribute to eutrophic conditions on the seafloor and lead to a degraded benthic community throughout the waterway as time goes on.

8. CONCLUSIONS

As described in the July 2003 OMMP for the Head of the Waterway, the purpose of the OMMP is to describe the post-remedial action environmental monitoring activities that will be performed to ensure that the long-term performance objectives are met over the design life of the project. The objectives of the OMMP are as follows:

1. Confirm long-term attainment of the Sediment Quality Objectives (SQOs) specified in the ROD and ESDs for the Utilities Work Area
2. Evaluate the effectiveness of source control
3. Evaluate the enhancement of habitat function and fisheries resources
4. Ensure the cap is providing an effective physical and chemical containment of underlying sediments as well as a clean substrate for colonization by aquatic organisms; and
5. Ensure the clean cap material has not been recontaminated by continuing sources.

Based on the results of the Year 10 OMMP activities, as well as the results from the previous nine years of OMMP monitoring activites it can be concluded that:

1. The clean cap, as placed at the conclusion of the remedial action, has been recontaminated on the top of the cap by continuing ongoing sources, particularly stormwater outfalls.
2. Long-term attainment of SQOs will not be met for BEHP throughout the project area and for PAHs in some locations due to recontamination from ongoing sources.
3. The “bottom-up” source control (i.e., installation of the cap) is effective but the “top-down” source control from stormwater discharges is ineffective.
4. Benthic communities have recolonized but are stressed by the organically rich fine material from stormwater outfalls.
5. The cap (s) is providing effective physical and chemical containment of underlying sediments but is no longer providing a clean substrate for colonization by aquatic organisms due to the accumulation of fine-grained material overlying the cap.

These findings document that the original remedy is functioning as designed but, due to uncontrolled ongoing sources, the long-term attainment of SQOs within the Utilities Work Area are not currently and are unlikely to be met in the future.

As part of the Year 4 monitoring report and in subsequent meetings with EPA, the Utilities requested that the cap monitoring objectives and responsibility be modified. EPA denied that request and required the Utilities to implement the Year 5, Year 7, and Year 10 sampling programs without any modifications. With the implementation of the Year 10 monitoring program and this report, the Utilities' have completed the first 10 years of monitoring as provided for under the existing OMMP, provided an evaluation of the Year 0 through Year 10 data, and summarized the overall effectiveness of the remedy at the site. The Utilities' will work with EPA to determine the scope of monitoring activities that should be continued over the next 20 years. These recommendations will be presented in a separate technical memo.

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APPENDIX A

YEAR 10 SITE OBSERVATIONS

TETRA TECH

MEMO

To:	Jacqueline Thiell Wetzsteon, PacifiCorp
From:	Senda Ozkan and Gary Braun
Date:	August 05, 2014
Subject:	Low Tide Site Observations April 30, 2014 Head of the Thea Foss Waterway Project

This technical memorandum presents a summary of the observed site conditions within the Head of the Thea Foss Waterway, Tacoma, Washington (Figure 1). The observations were made by Senda Ozkan, Civil Engineer and Gary Braun, Sediment Scientist for Tetra Tech, Inc. The site visit was performed between approximately 10:15 am and 1:00 pm PDT on April 30, 2014. During this period, a low tide of -1.74 feet Mean Lower Low Water (MLLW) was predicted for 12:28 pm PDT (Figure 2).

The purposes of this site visit were to:

- Observe the general condition of wing walls and outlet protection of Outfall#235;
- Observe the general condition of the waterway slopes exposed at low tides;
- Observe the general condition of the scour protection apron at the head of the waterway;
- Monitor the former SR-509 seep areas for evidence of sheens;
- Observe the conditions at Former American Plating upland remediation site completed in 2012;
- Observe the conditions of walking path along the west bank slopes noted in Year 9; and
- Document observed site conditions during a low daytime tide to fulfill the Year 10 Operation, Maintenance and Monitoring Program (OMMP) requirements for the Head of the Thea Foss Waterway Project.

Condition of the Outfall #235 Wing Walls and Outlet Protection:

At Outfall 235, both wing walls are separating from the Outfall 235 head wall. The City of Tacoma installed PK nails on the north and south ends of the top of the headwall in 2008 to enable monitoring of any movement between the headwall and the wing walls. The PK nails on the south end of the wing wall have not been present since the 2012 low tide walk (Year 8 of the OMMP). In Year 9, it was observed that the separation between the head wall and the wing walls were similar to Year 4 through Year 8 observations (i.e. 7 1/2 inches at the north wing wall and 9 1/2 at the south wing wall). During the Year 10 site walk, it was observed that the Outfall 235 head wall was covered and backfilled with slope armor quarry spall. The slope armor stone backfill appeared to have been placed and packed during improvements made on the walking path. Separation measurements were not possible due to well-packed backfill covering the head wall (Figure 3 and 4). The general conditions of wing walls showed that the separation between the wing walls was similar to the previous observations indicating little to no additional movement.

Slope armor stone adjacent to Outfall #235 shows minimal signs of erosion and displacement. There continues to be a pool with a sandy bottom approximately 2 feet deep directly in front of the outfall as noted in previous years (Figure 5). No undercutting or deep scour under the concrete outfall apron was observed (Figure 6).

Water was flowing out of Outfall 235 during the Year 10 OMMP daytime low tide site visit. The water flow dissipates energy through the outfall protection and fans out to the Waterway (Figure 7). No seep flow or boils were observed along the west shoreline bank, north of the abandoned dock (i.e., the former Standard Chemical area) (Figure 8).

Upper Bank Work around Outfall #235 and the West Bank Shoreline

In Year 9, it was discovered that above Outfall 235 and along the upper part of the west bank, some work was completed that allows the public to get closer access to the Waterway. The work included construction of a new walking path and restacking of erosion control quarry spalls above the head wall of Outfall 235 and placement of toe protection for the walking path (Figure 9). In Year 10, it was observed that the walking path had been extended to the south and was being well-maintained. The path was constructed along the upper west bank slopes below the Thea Foss Waterway Public Esplanade and the 21st Street Park by scraping and shaping to create a bench slope. Similar to Year 9 observations, along the toe of this newly shaped slope, old debris that was used as fill material for the uplands area near the park and the esplanade (e.g., concrete, bricks, metal scrapes) was exposed (Figure 10). Exposed debris looks intact at the toe of the slope at this time but future activities/events may eventually scour those locations and may cause debris to move to the walking path and the slope of the Waterway.

General Condition of the Waterway Slopes Exposed at Low Tide:

Photographs of the exposed east and west bank slopes observed during the April 30, 2014 daytime low tide are shown in Figures 11 to 15. No slope erosion or sloughing was observed. As previously noted in the Years 0 through 9 site observation memoranda, the coarser slope cap materials and habitat mix are covered with algae, seaweed, and barnacles. Mussels are also present on these materials. A layer of olive and gray silt is present over capping material on the lower portions of the east and west bank slopes.

Condition of the Scour Protection Apron Placed at the Head of the Waterway:

The condition of the scour protection apron at the south end of the waterway is shown in Figures 16 to 20. Water was flowing from Outfalls 237a and 237b during the site visit. The discharge from these outfalls was spreading out over the apron and flowing northward towards the turning basin. A series of small shallow channels are present in the apron near the middle of the South end of the waterway (Figures 19 and 20). The configuration and shallow depth of these channels appear unchanged from previous observations and the overall integrity of the cap has not been observed as adversely impacted by the presence of these features. No corrective action is proposed. Silt continues to build up on and adjacent to this scour apron with the greatest accumulation on the east side of the scour apron (Figure 19).

Observations in the Vicinity of the Former SR-509 Seep Area:

Gas bubbles were observed in the vicinity of the former SR-509 seep area during the site visit but no sheens were observed in the former SR-509 seep area (Figure 21).

Former American Plating Upland Remediation Site:

The American Plating Site occupies approximately 1.4 acres of land that is located along the eastern shoreline at the head of the Thea Foss Waterway. Remedial action was conducted by the Foss Waterway Development Authority (FWDA) to address contamination resulting from releases from past metal plating operations at the Site in 2012. The remediation included excavation and capping of soil with contaminant concentrations greater than the Site cleanup levels and restoration of the site compatible with the planned future development of the site as a public park with public access to the waterway.

A riparian habitat enhancement area is present along the shoreline of the Site. The riparian habitat enhancement was constructed along the shoreline adjacent to the Site in 2004 as part of the Thea Foss Waterway Remediation Project. Contaminated sediment in the Thea Foss Waterway at and below the Ordinary High Water (OHW) line adjacent to the Site and adjacent to the parcels north and south of the Site, were capped as part of the Thea Foss Waterway Remediation Project. The habitat enhancement consisted of a log step bench that was constructed on top of a slope cap built to contain contaminated sediment and the 5 to 8 feet wide area behind and upland of the log step was planted with native vegetation.

Observations of the former American Plating remediation site along the top of the east slope of the waterway showed that the capped area was nicely grassed (Figure 22). Restoration of the capped portion of the site adjacent to the shoreline in the habitat enhancement area at and above the OHW line with native plantings still continues. Per the habitat enhancement plan of the remediation design, goose exclosures were formed by a series of rebar stakes along the upper and lower edge of the bench and twine strung among the rebars to keep the geese out and promote vegetation growth (Figure 23). Another view of the site where the upland remediation work is completed and the site is in operation is shown in Figure 24.

Condition of Outfall # 243 Tideflex Valve and Scour Protection:

The scour protection adjacent to Outfall 243 (at Station 73+40 on the east side of the waterway under the SR-509 Bridge) shows no obvious signs of erosion or displacement (Figure 25). Water was flowing out of Outfall 243 during the site visit. The Tideflex™ valve at the end of Outfall 243 was covered with barnacles similar to the observations in previous years (Figure 26). During the 8th year site visit in 2012, City personnel stated that the Tideflex™ valve is cleaned annually; it did not appear to have been cleaned recently.

General Observations:

- The weather was sunshine with moderate winds blowing out of the North and temperature in the mid to lower 70s during the April 30th field visit.
- Gas bubbling was observed in the vicinity of SR-509 seep area during the site visit. No sheen was observed in bubbling areas.
- Crab shells, clam shells, mussels, barnacles, geese, gulls, ducks, pigeons, crows, seaweed and algae were observed at the site during the site visit.
- Slope armor along the east slope bank of the waterway remained with thick vegetation along the top of the bank in the City's mitigation area (Figures 27 and 28). In 2012, during the June 6th site visit, Mary Henley confirmed that the vegetation was not an invasive species but was a native species of plant that was planted as part of the mitigation for this area.
- In general, observations in Year 10 were consistent with the previous years. The outfalls, bank slopes, scour protection apron function normal. Observed gas bubbles do not show any sheen. The remediation continues to perform as designed. Recommend continuing observations on the condition of the walking path where further scour/erosion might occur in future. The filled debris along the wall of walking path may get exposed and move to the west bank slopes of the Waterway.

FIGURES

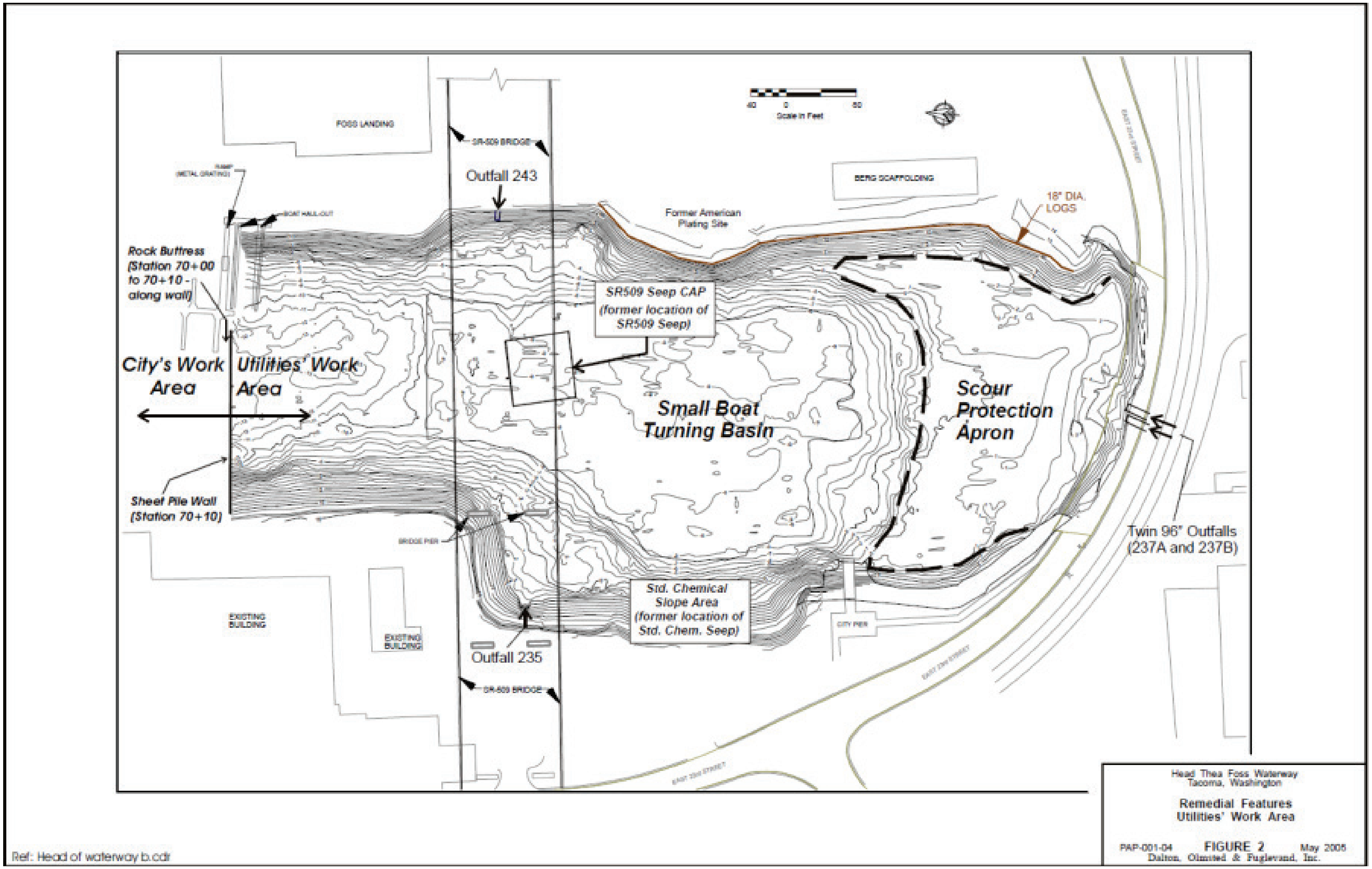
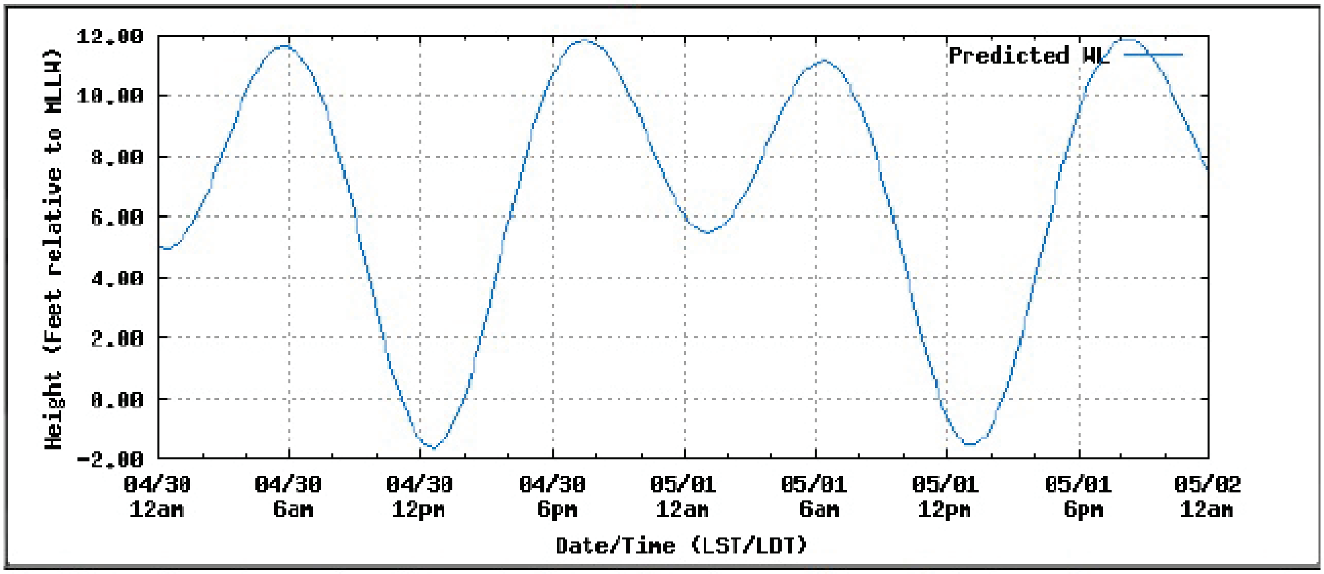


Figure 1 – Head of the Thea Foss Waterway

NOAA/NOS/CO-OPS
Daily Tide Prediction for TACOMA,WA
StationId 9446484
From: 2014/04/30 - 2014/05/01
Units: Feet Time Zone: LST/LDT Datum: MLLW



Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

High/Low Tide Predictions

Station Name: TACOMA,WA
Parameter: Daily
Product: Tide Prediction
Start Date & Time: 2014/04/30 12:00AM
End Date & Time: 2014/05/01 11:59PM

Source: NOAA/NOS/CO-OPS
Prediction Type: Harmonic
Datum: MLLW
Height Units: Feet
Time Zone: LST/LDT

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2014/04/30	Wed	12:18 AM	4.94 L	05:43 AM	11.66 H	12:30 PM	-1.67 L	07:28 PM	11.84 H
2014/05/01	Thu	01:05 AM	5.46 L	06:21 AM	11.18 H	01:07 PM	-1.6 L	08:13 PM	11.85 H

Figure 2 – Tacoma, WA Station ID 9446484 Tides, April 30, 2014

Figure 3 – Outfall #235 South Wingwall Separation

Figure 4 – Outfall #235 Wingwalls Separation

Figure 5 – Outfall #235 Outfall Protection and Pool

Figure 6 – Outfall #235 Outfall Protection and Pool

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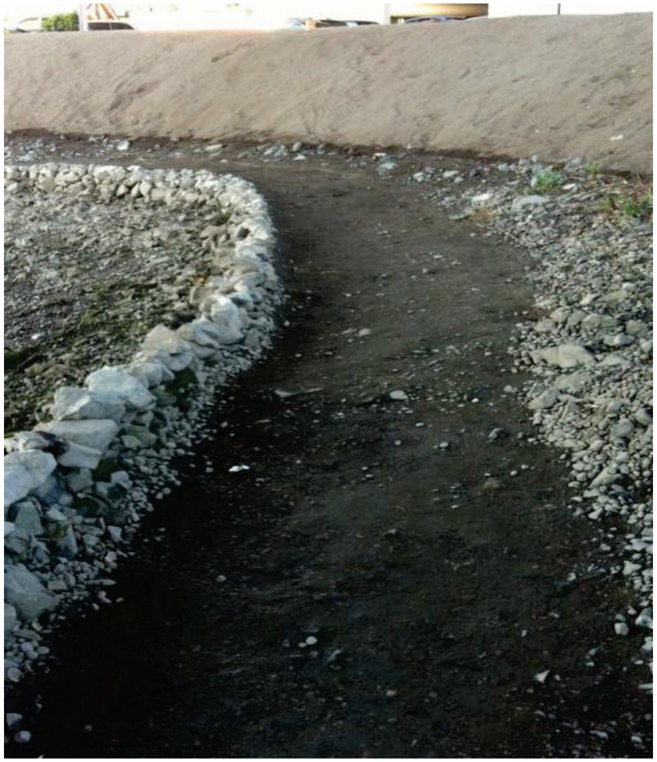

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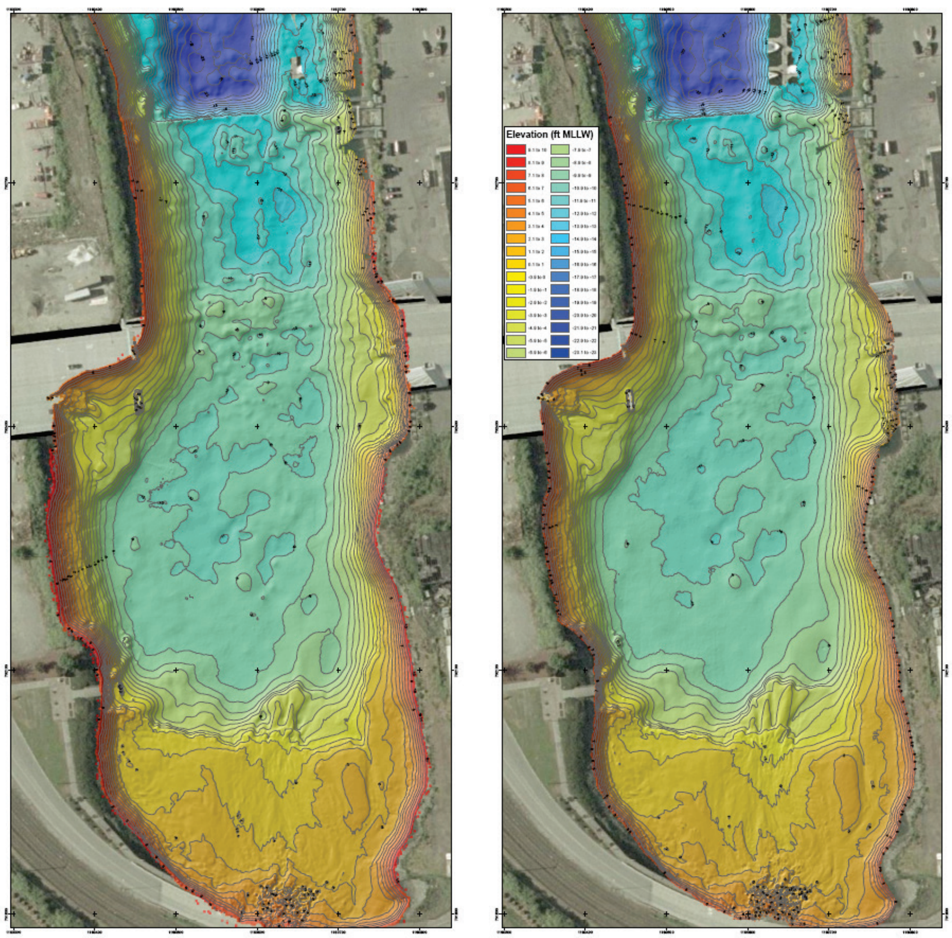
APPENDIX B

YEAR 10 BATHYMETRY REPORT

Puget Sound Energy / PacifiCorp
Head of the Thea Foss Bathymetry Survey



2011 Survey | 2014 Survey

May 2014

Prepared by:
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1 Overview

The following document describes a bathymetric survey which was conducted for Puget Sound Energy and PacifiCorp, by Tetra Tech, Inc., on April 29, 2014, under MSA 46002654. The primary bathymetric survey equipment was a multibeam sonar system which was used to provide a high resolution bathymetry map of the project area. The acquired bathymetric data is presented as a 3-D Hillshade Chart and Difference Plot in Figures 4-2 and 4-3 and as a chart in Appendix A and provided electronically as an ASCII ENZ data set in Appendix E.

Table 1 lists the personnel and their roles in the survey.

Table 1 - Survey Team

Company	Personnel
Tetra Tech, Inc.	Kyle Enright - Hydrographer
Tetra Tech, Inc.	Curtis Sapusek – Marine Technician
Tetra Tech, Inc.	Guy Piercey – Vessel Captain

2 System Setup

Tetra Tech configured the Research Vessel (R/V) *David Humes* to acquire the hydrographic data. The *R/V David Humes* is a fully instrumented vessel with a 390 horsepower inboard engine and jet drive (refer to Figure 2-1). The equipment used for the survey is shown in Table 2. Data sheets for the main survey systems are included in Appendix B.

Table 2 - Survey Equipment

Sensor Type	Manufacturer/Model
Multibeam Sonar	Dual RESON SeaBat 7125 SV2
Motion Sensor	Applanix POS MV 320
Heading	Applanix POS MV 320
Position	Applanix POS MV 320
Sound Speed Sensors	YSI CastAway CTD / Seabird SBE 37
Tide Corrections	Applanix POS MV 320 / Leica RTK GPS

Data collection and navigation software for the bathymetry survey was HYPACK®/ HYSWEEP®. Software settings for bathymetry data acquisition include the serial I/O configuration and sensor offsets in HYPACK, and HYPACK Navigation device offsets in the HYSWEEP hardware configuration.

Figure 2-1 - R/V David Humes with dual head multibeam sonars retracted on bow

2.1 Device Offsets

Device offsets were precisely defined for the multibeam sonar, attitude sensor and GPS antenna, so that the HYPACK/HYSWEEP acquisition software could accurately convert the input sonar and support sensor data into XYZ soundings on the earth.

The following offsets (refer to Tables 3.1 and 3.2), in feet, were used for the HYPACK and HYSWEEP hardware setups as well as the Vessel Configuration File for CARIS data processing:

During data collection the bow mounted MBE heads struck a rigid object which shifted their position relative to the IMU or origin point. When this occurred a second patch was performed on site to calibrate the new position and new offsets where measured.

Table 1.1 – Sensor Offsets (feet)

Sensor	Across	Along	Vertical
Port SeaBat 7125	-0.72	16.18	0.81
Starboard SeaBat 7125	1.31	16.05	0.76
Motion Sensor/Navigation (Applanix POS MV)	0.00	0.00	0.00
GPS Tide Auxiliary (Leica RTK Antenna)	0.21	16.33	-6.28

Table 2.2 - Sensor Offsets (feet) Post MBE Head Strike

Sensor	Across	Along	Vertical
Port SeaBat 7125	-0.90	15.82	0.84
Starboard SeaBat 7125	1.06	16.37	0.86
Motion Sensor/Navigation (Applanix POS MV)	0.00	0.00	0.00
GPS Tide Auxiliary (Leica RTK Antenna)	0.21	16.33	-6.28

2.2 Sonar Mount

The sonar heads were mounted to the vessel using a bow mount pole. The mount is designed such that the sonar can be locked into place over the bow of the boat while allowing retraction of the sonar for transit (Figure 2-1).

2.3 Geodesy Settings

The geodesy settings shown in Table 4 were used for the project.

Table 4 - Survey Geodesy Settings

Parameter	Setting
Grids	State Plane NAD-83
Zone	WA-4602 Washington South
Distance Unit	US Survey Feet
Depth Unit	US Survey Feet
Geoid	NGVD 29
Vertical Datum	MLLW - Epoch 1960-1978
Base Station Position	Benchmark: GP27509-117 Position: 1159855.209 E 702327.035 N Benchmark Height: 55.878 (re. MLLW)*
Vertical Control	Benchmark: City of Tacoma 1823/3547 Type: Brass Monument Location: Puyallup Ave. & East C St. Elevation: 36.441 ft (m) MLLW*

*The project benchmark on Puyallup Ave. was removed sometime previous to the 2008 survey and a new concrete pad was laid down at its location (refer to Figure 2-2). For consistency a City of Tacoma vertical monument, benchmark 1823/3547 (refer to Figure 2-3), has continued to be used since removal of the Puyallup Ave benchmark. Benchmark GP27509-117 height has been found to be 0.55 ft higher than City of Tacoma 1823/3547.

2.4 GPS Reference Station

The RTK GPS base station was set up on the GP27509-117 survey monument (refer to Figure 2-4) and real-time kinematic corrections were broadcast to the survey vessel and rover GPS. The heights were converted to MLLW at the base station using the Tacoma Public Works 2.85 foot vertical datum shift from NAVD88 to MLLW (Epoch 1960 - 1978) (Appendix C). The rover RTK GPS was used to perform QC checks on the vessel horizontal position and height measurements which were derived with the onboard POS MV. The 0.55ft vertical offset between base station point GP27509-117 and vertical control 1823/3547 was applied to the final data set during post processing (refer to section 2.3).

Figure 2-2 - Former Location of Project Primary Control Point

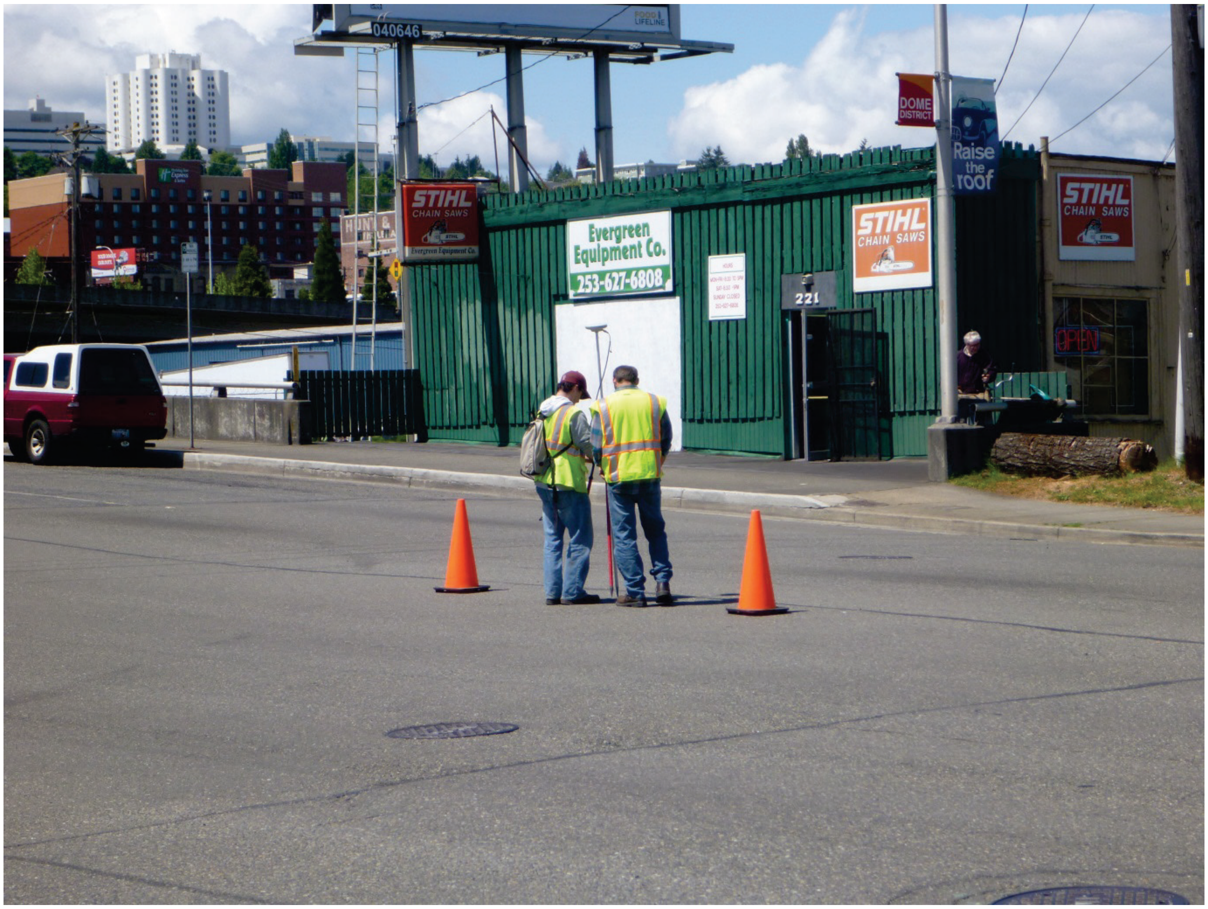


Figure 2-3 - 2014 Survey RTK GPS Vertical Control Location – Benchmark 1823/3547

Figure 2-4 - 2014 Survey RTK GPS Base Station Location – Benchmark GP27509-117

3 Patch Test Results

A standard patch test was carried out within the survey area to determine the calibration offsets between the multibeam echosounder and the motion reference unit. The offsets shown in Table 5 were calculated from the patch test which was conducted on site. These offsets were applied in the data processing software to correct residual misalignments in the mechanical installation of the sensors, and to compensate for any latency in the positioning system.

Table 5.1 - Patch Test Results #1

Parameter	Port Head	Starboard Head
Roll (deg.)	28.23	-32.18
Pitch (deg.)	-1.98	-2.16
Yaw (deg.)	1.12	3.13
Nav Latency (sec)	0.0	0.0

Table 5.2 - Patch Test Results #2 - Post MBE Head Strike

Parameter	Port Head	Starboard Head
Roll (deg.)	29.03	-31.78
Pitch (deg.)	-3.07	-4.34
Yaw (deg.)	-17.80	-13.70
Nav Latency (sec)	-1.0	0.0

4 Bathymetry Results

The results from the multibeam bathymetry survey are shown in Figure 4-2 and in Appendix A. Appendix D contains the survey collection logs. An ASCII ENZ data set has been delivered electronically.

4.1 Historical Bathymetry Data (2004, 2006, 2008, 2011 & 2014)

The Thea Foss Waterway was surveyed in 2004 with a single beam echosounder system and in 2006 and 2008 by Tetra Tech using a (1) RESON SeaBat 8101 multibeam sonar. The 2011 and 2014 surveys were conducted with dual RESON SeaBat 7125 multibeam sonars.

4.2 2011/2014 Multibeam Comparison

Fledermaus Pro software was used to perform a surface comparison between the overlapping areas of the 2011 and 2014 multibeam surveys. This comparison calculated a median difference between the surfaces created from the two surveys was -0.01 feet (refer to Figure 4-1). This indicates that the vertical control and results were very repeatable.

Figure 4-2 shows a side-by-side comparison of the April 2011 and April 2014 multibeam bathymetry surveys. Again, the two surveys show good correlation and minimal significant changes in the bottom topography over the 4+ year period between the surveys.

4.3 Survey Results

Figure 4-3 shows a plot, color coded for changes in elevations of the bottom, for the southern section of the Thea Foss Waterway. The -0.01 foot median difference between the 2011 and 2014 surveys is likely a combination of the difference in the survey systems and net deposition over the full survey area.

Several changes are apparent in this representation of the data:

- While significant compaction of the sediment cap south of the bridge was seen in the comparison between the 2004 and 2006 surveys, the cap now appears to be fairly stable.
- Continued deposition of the sill has continued from the 2011 to 2014 survey as material continues to be transported out of the twin outfalls at the south end of the waterway.
- Some erosion was observed along the west bank under WA-509 Bridge.
- Other slight variations in the bottom topography were observed, however these are probably minor effects induced by varying tidal flows and/or vessel prop wash.

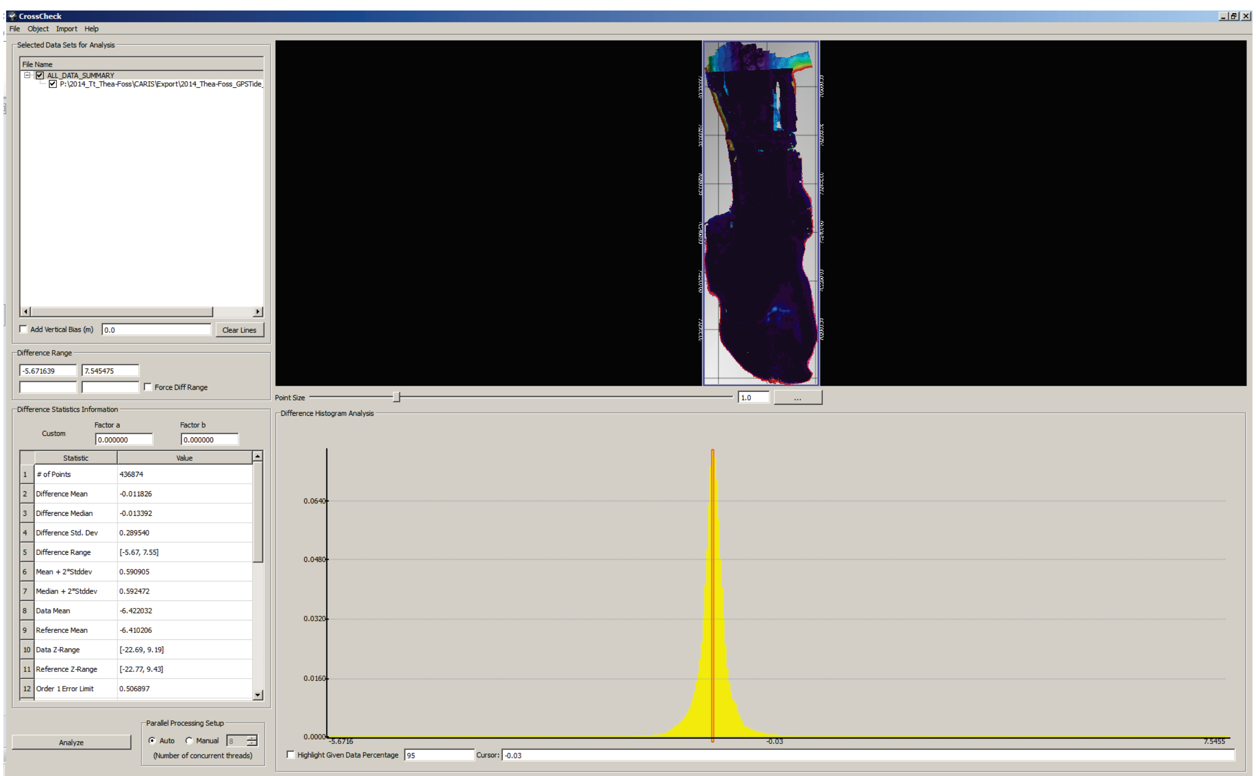


Figure 4-1 - Statistical Difference Between the 2011 and 2014 Multibeam Bathymetry Surveys

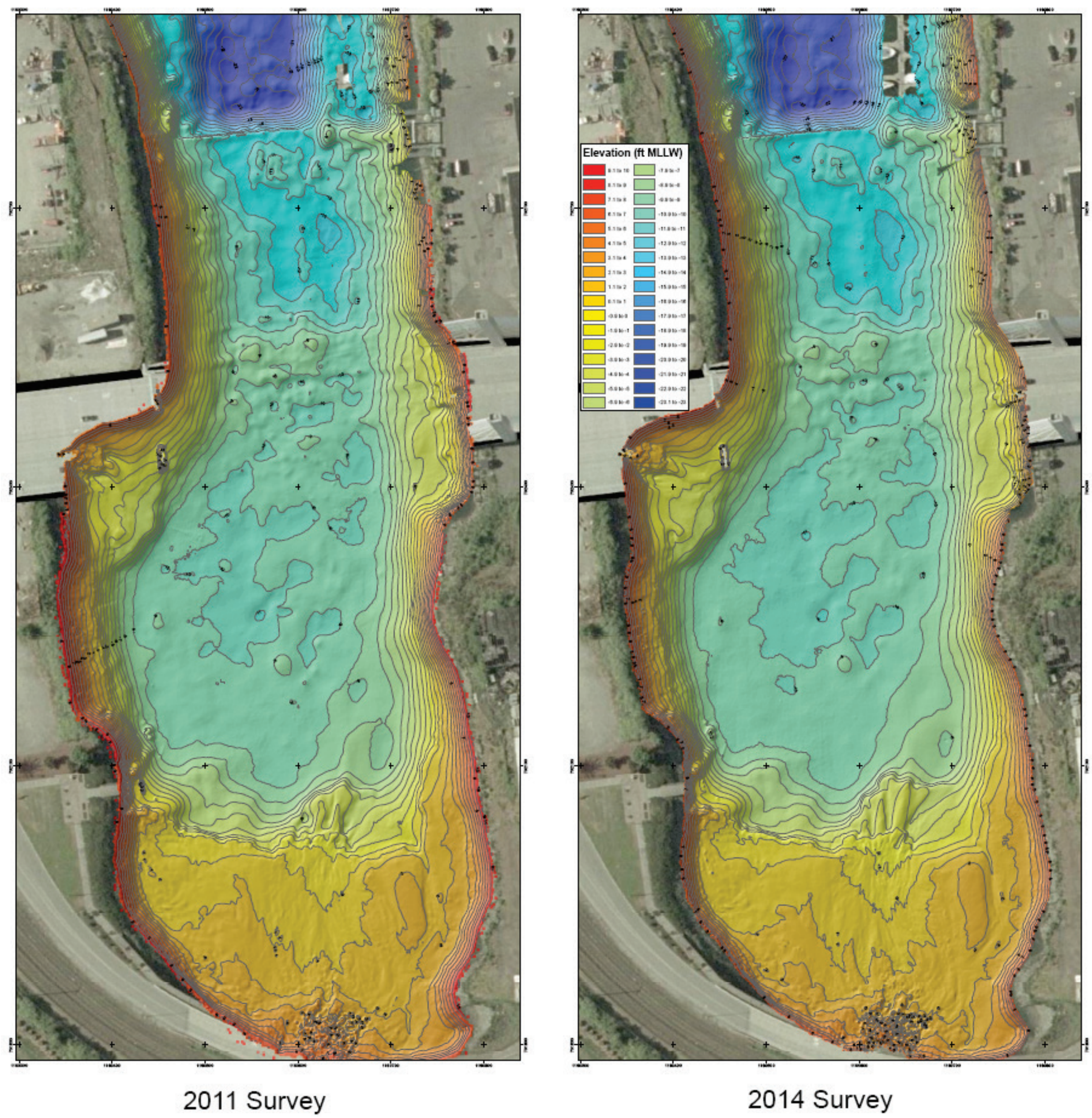


Figure 4-2 - Thea Foss Bathymetry –August 2011 and April 2014

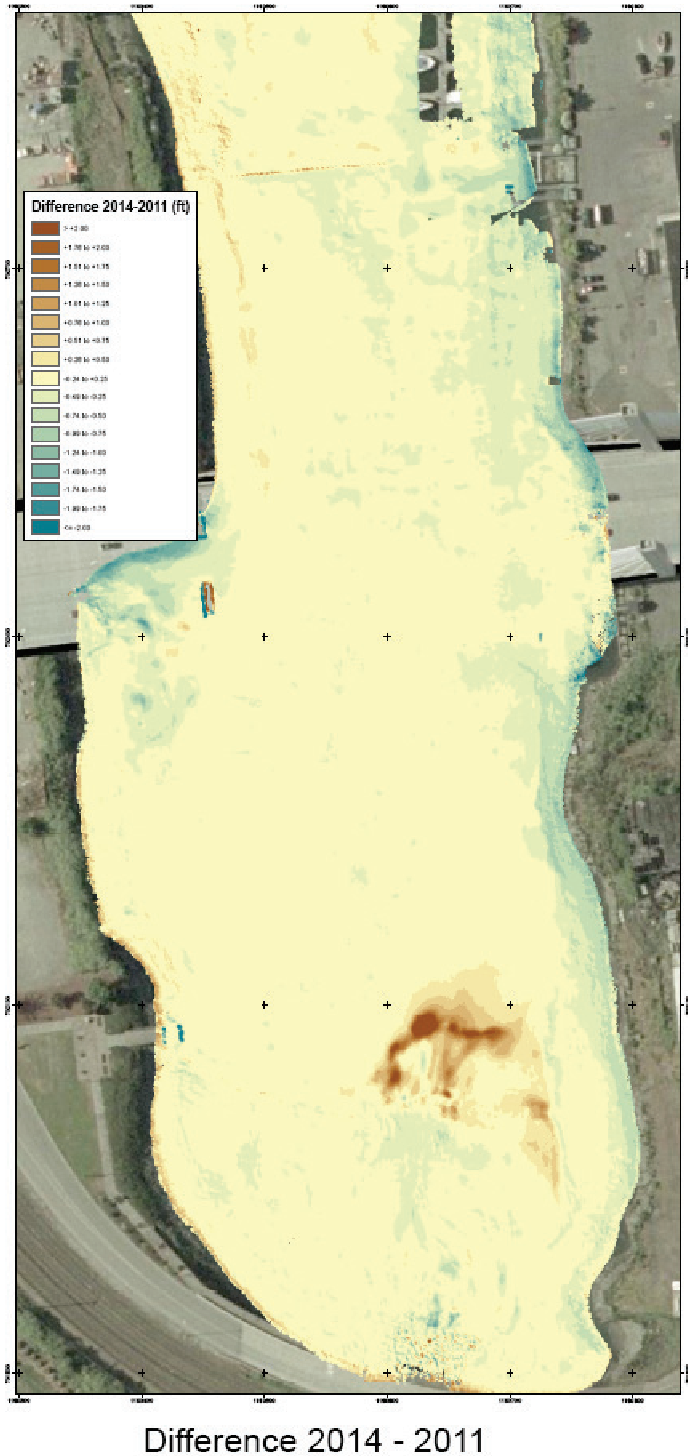
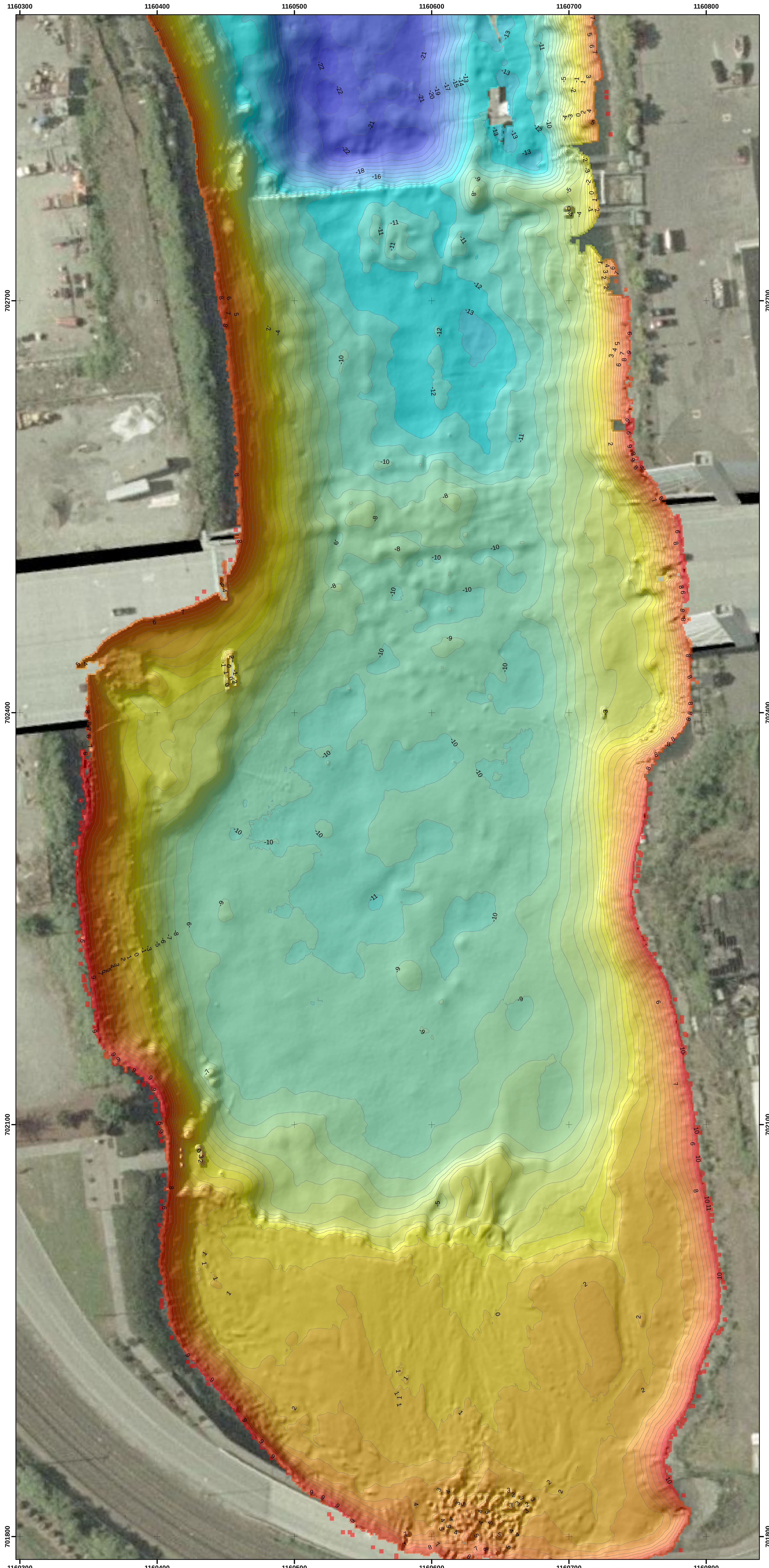
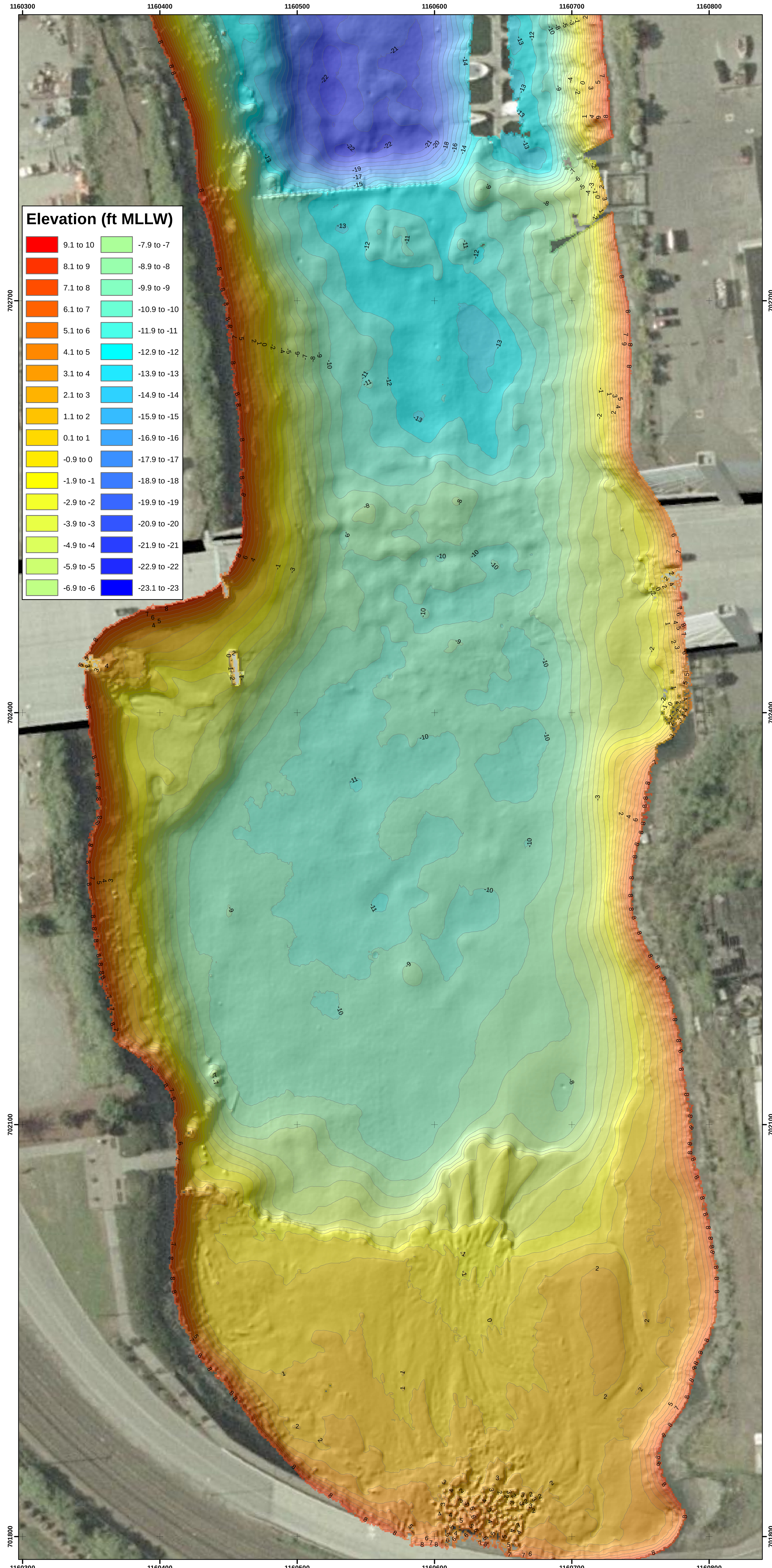


Figure 4-3 - Elevation Change Plot, 2014 – 2011

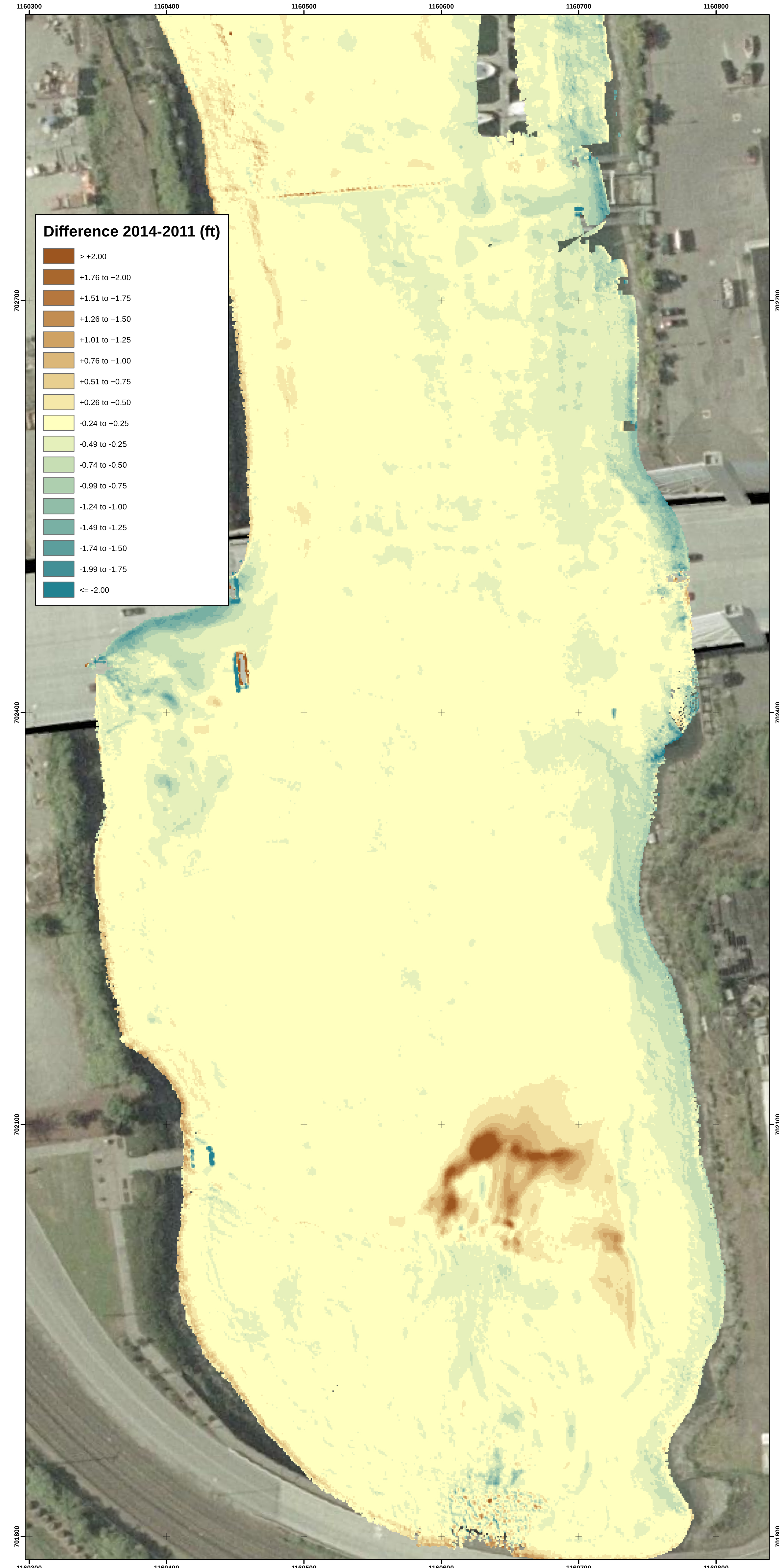
Appendix A. Thea Foss Bathymetry Chart: April 2014



2011 Survey



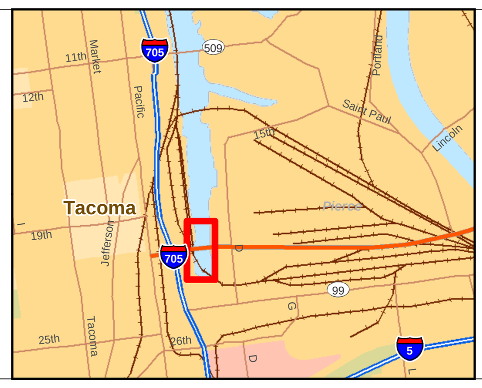
2014 Survey

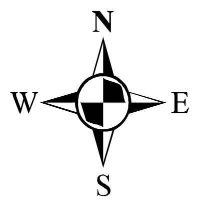


Difference 2014 - 2011

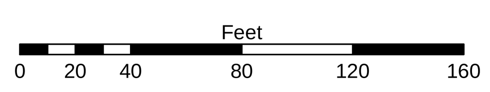
Notes:

1. Multibeam bathymetry data collected using Hypack/Hysweep 2012a.
2. Multibeam bathymetry processing performed using CARIS HIPS and SIPTS v7.1.2, IVS3D Fledermaus v7 and Tetra Tech developed software.
3. Charts and other data products developed using ArcGIS v10.1 and IVS3D Fledermaus.
4. Void in 2011 and 2014 bathymetry near northeast side of dataset due to moored dock sections blocking access.
5. Bathymetric survey conducted April, 2014.





Scale 1:500



Geodetic Settings - 2014 Survey		Survey Equipment - 2014 Survey	
Datum	NAD83-91	**Multibeam Sonar**	Dual RESON SeaBat 7125 Sv2
Projection	WA-4602 Washington South	**Positioning System**	Applanix POS/MV 320
Horizontal Units	US Survey Feet	**Heading Sensor**	Applanix POS/MV 320/Leica 1230 RTK GPS
Vertical Units	US Survey Feet	**Motion Sensor**	Applanix POS/MV 320/Leica 1230 RTK GPS
Vertical Datum	MLLW (tidal epoch 1960-1978)	**Sound Speed Sensors**	YSI CastAway CTD/Seabird SBE 37
Vertical Control	NAVD88, TPW defined offset (2.85 ft) WSDOT GP27509-117		
Horizontal Control	WSDOT GP27509-117	**Date Surveyed**	29 April 2014

Thea Foss Bathymetry Survey

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TETRA TECH EC, INC.

Data Acquisition:	K. Enright, C. Sapusek	Plate
Data Processing:	K. Enright, K. Wilson	**1**
Drafted by:	MJ Watson	Sheet:
Reviewed by:	R. Feldpausch	**1 of 1**

Document Path: H:\2014_Tt_Thea-Foss\ArcGIS\maps\2014_Tt_Thea-Foss.mxd

Appendix B. Equipment Data Sheets

The following are copies of the equipment data sheets provided by the manufacturers of some of the systems used in the survey.

Teledyne RESON

PLD13777-13

SeaBat® 7125

Ultra high Resolution Multibeam Echosounder

The new generation SeaBat 7125 builds on the field experience and feedback from many users around the world and brings unparalleled resolution and installation flexibility. The system is available in three separate configurations; one designed specifically for installation on survey vessels and 6000m depth rated systems for either ROV or AUV.

Each of these configurations provides superlative data quality and ease of use over depths from 0.5m to 500m. Enhanced features such as X-Range and Full Rate Dual Head bring unsurpassed performance levels to the SeaBat 7125.

Special emphasis has been put on maximizing operational efficiency and features such as variable swath width and roll stabilisation combined with a high ping rate and excellent data quality.

Surface Vessel Installation – SV2

The new SeaBat 7125-SV2 is a highly integrated single or dual frequency system designed with ease of installation and operation as a high priority. The system consists of a surface transceiver with integrated multiport card and a standard 25m cable run to the transducers. The transceiver hardware is suitable for running data acquisition software and is available with Teledyne RESON PDS2000 software pre-installed and configured.

ROV2

For deep-water use, the ROV version of the SeaBat 7125 is depth rated to 6000m and includes a titanium interface bottle. System performance is identical to other members of the SeaBat 7125 family and with optional features such as FlexMode and Full Rate Dual Head, the system provides state-of-the-art pipeline and umbilical profiling capability.

AUV

The AUV version of the 7125 provides on-board data processing and logging as well as interface to third party sensors. The electronics are supplied mounted on an aluminium frame for ease of integration and an optional 6000m depth-rated titanium electronics housing is available. The 7125-AUV provides high quality data and performance commensurate with the other versions of the 7125.

FEATURES

BEAM DENSITY
Up to 512 beams in selectable modes optimises operations for any survey type

DEPTH
Dual frequency provides seamless coverage from 0.5 to 500m depth

HIGH SPEED
High ping rate allows highspeed operations without compromising data density

ROLL STABILIZATION
Real-time roll stabilization maximizing usable swath

IHO
Compliance with IHO SP44Ed5 over entire depth range

DIAGNOSTICS
Advanced diagnostics

WATER COLUMN DATA
Allows collection of high density water column data for advanced processing

TELEDYNE RESON
Everywhereyoulook™

SeaBat® 7125

SEABAT 7125 SYSTEM SPECIFICATIONS

	7125 SV2	7125 ROV2	7125 AUV
Power requirement	Typical: 110-220 VAC, 50/60 Hz, 250 W. Max: 110-220 VAC, 50/60 Hz, 700 W.	Processor Typical: 110-220 VAC, 50/60 Hz, 110 W. Processor Max: 110-220 VAC, 50/60 Hz, 400 W. Wet end Typical: 48 VDC (+/- 10%), 115 W. Wet end Max: 48 VDC (+/- 10%) 250 W. Power requirements when Wet-ends are powered from sonar processor: 110-220 VAC, 50/60 Hz, 700 W.	48V DC (± 10%)
Transducer cable length	25m standard	3m standard 10m optional	3m standard 10m optional
LCU to processor cable length	N/A	25m (st), 3 m	N/A
System depth rating	25m	6000m	6000m optional
Frequency	200kHz or 400kHz (dual frequency available)		
Along-track transmit beamwidth	2° at 200kHz & 1° at 400kHz		
Across-track receive beamwidth	1° at 200kHz & 0.5° at 400kHz		
Max ping rate	50Hz (±1Hz)		
Pulse length	30μs – 300μs Continuous Wave; 300μs – 20ms Frequency Modulated (X-Range)		
Number of beams	512EA/ED at 400kHz, 256EA/ED at 200kHz		
Max swath angle	140° in Equi-Distant Mode; 165° in Equi-Angle Mode		
Typical depth [2])	0.5m to 150m at 400kHz, 0.5m to 400m at 200kHz		
Max depth [3])	>175m at 400kHz; 450m at 200kHz		
Depth resolution	6mm		
Data output	Bathmetry, sidescan and snippets 7K data format		
Temperature:	-2° to +35°C		
Flexmode:	Optional		
Full Rate Dual Head	400 KHz for ROV/ AUV		

For relevant tolerances for dimensions above and detailed outlined drawings see Product Description
1 All beam widths measured at -3dB, unsteered with a sound velocity of 1480m/s.
2 This is a depth range within which the system is normally operated, from the minimum depth to a depth value corresponding to the max. swath -50%.
3 This is the single value corresponding to the depth at which the swath is reduced to 10% of its max. value. For actual swath performance refer to Product Description.

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SeaBat® 7125

SEABAT 7125 SYSTEM SPECIFICATIONS

Component	7125 SV2	7125 ROV2	7125 AUV
EM 7216 receiver	✓	✓	✓
TC 2181 dual frequency 200/ 400 khz projector	✓		
TC 2160 400khz projector		✓	✓
TC 2163 200khz projector (optional)		✓	✓
7-link control unit		✓	
Sonar processor unit with monitor, keyboard and pointer device		✓	
SV transceiver with monitor, keyboard and pointer device	✓		
7-i integrated control and processor unit			✓

Meassurements	Height [mm]	Width [mm]	Depth [mm]	Weight [kg/air]	Weight [kg/water]
TC 2181 df 200/ 400 khz projector	87	93	280	4.5	3.4
TC 2160 400 khz projector	77	62	285	2.7	1.7
TC 2163 200khz projector	115	100	280	7.5	5
EM 7216 200/400 khz receiver	137	496	102	10.7	5.7
Surface transceiver	5U	19"	557	20	N/A
LCU bottle	530	Ø174	N/A	23.5	12.0
ICPU frame	172	166	497	10	N/A
Sonar processor	5U	19"	630	30	N/A

OPTIONS:
- Mounting Bracket with Fairing
- SVP-70 sound velocity probe with 25m cable
- Extended warranty/ support & maintenance contracts
- Fiber-optic conversion for ROV installations

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SeaBat® 7125

Ultra high Resolution Multibeam Echosounder

WHY CHOOSE A SEABAT 7125 SYSTEM?

- Maximum productivity during data collection
  - Up to165° swath
  - Roll Stabilization
  - Up to 512 beams in operator selectable modes
- Uncompromised clean data sets
  - Quality Filters/flags
  - Interactive, Comprehensive GUI
  - Industry leading bottom detect methods
- Ease of Installation and Use
  - Fully automatic operation
  - Single highly integrated topside transceiver
  - Integrated Multibeam acquisition and processing software
  - Extremely portable wet-end
- Maximum Operational Flexibility
  - 400 and 200kHz operation for seamless data collection from 0.5m to 500m
  - Advanced beam-forming with variable and steerable swath
  - Simultaneous output of bathymetry, Sidescan, Snippets backscatter, and raw water column data
  - Optional X-Range for increased range performance, ultra high resolution and resistance to external noise

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TELEDYNE RESON Everywhereyoulook™

MAXIMIZE YOUR ROI WITH POS MV 320

POS MV 320 is a user-friendly, turnkey system designed and built to provide accurate attitude, heading, heave, position, and velocity data of your marine vessel and onboard sensors. POS MV is proven in all conditions, and is the georeferencing and motion compensation solution of choice for the hydrographic professional.

POS MV blends GNSS data with angular rate and acceleration data from an IMU and heading from the GPS Azimuth Measurement System (GAMS) to produce a robust and accurate full six degrees-of-freedom position and orientation solution.

PERFORMANCE SUMMARY - POS MV 320 ACCURACY

POS MV 320	DGPS	RTK	Accuracy During GNSS Outage
Position	0.5 - 2 m[1]	Horizontal: +/- (8 mm + 1 ppm x baseline length)[2] Vertical: +/- (15 mm + 1 ppm x baseline length)[2]	~ 6 m for 60 s total outages (DGPS) ~ 3 m for 60 s total outages (RTK) ~ 2 m for 60 s (post-processed DGNSS) ~ 1 m for 60 s total outages (IAPPK)
Roll & Pitch	0.02°	0.01° (0.008° with post processing)	0.02°
True Heading	0.01° with 4 m baseline 0.02° with 2 m baseline	-	1° per hour degradation (negligible for outages <60 s)
Heave TrueHeave™	5 cm or 5%[3] 2 cm or 2%[4]	5 cm or 5%[3] 2 cm or 2%[4]	5 cm or 5%[3] 2 cm or 2%[4]

PCS OPTIONS

COMPONENT	DIMENSIONS	WEIGHT	TEMPERATURE	HUMIDITY	POWER
Rack Mount PCS	L = 442mm, W = 356mm, H =46mm	3.9 kg	-20 °C to +70 °C	10 - 80% RH	AC 120/230 V, 50/60 Hz, auto-switching 40 W
Small Form Factor PCS	L = 167mm, W = 185mm, H = 68mm	2.5 kg	-20 °C to +60 °C	0- 100% RH	DC 10-34 V, 35 W (peak)

INERTIAL MEASUREMENT UNIT (IMU)

ENCLOSURE	DIMENSIONS	WEIGHT	TEMPERATURE	IP RATING
Between Decks	L = 158 mm, W = 158 mm, H = 124 mm	2.5 kg	-40 °C to +60 °C	IP65
Between Decks	L = 150 mm, W = 120 mm, H = 110 mm	1.8 kg	-40 °C to +60 °C	IP65
Submersible	Ø172 mm X 206 mm (base plate Ø209 mm)	3.9 kg	-40 °C to +60 °C	IP68

GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)

COMPONENT	DIMENSIONS	WEIGHT	TEMPERATURE	HUMIDITY
GNSS Antenna	Ø178 mm, W = 73 mm	0.45 kg	-50 °C to +70 °C	0-100% RH

[1] Depending on quality of differential corrections
[2] Assumes 1 m IMU-GNSS antenna offset
[3] Whichever is greater, for periods of 20 seconds or less
[4] Whichever is greater, for periods of 35 seconds or less

1. ETHERNET INPUT OUTPUT

Ethernet	(10/100 base-T)
Parameters	Time tag, status, position, attitude, heave, velocity, track and speed, dynamics, performance metrics, raw IMU data, raw GNSS data
Display Port	Low rate (1 Hz) UDP protocol output
Control Port	TCP/IP input for system commands
Primary Port	Real-time (up to 200 Hz) UDP protocol output
Secondary Port	Buffered TCP/IP protocol output for data logging to external device

2. SERIAL RS232 INPUT OUTPUT

5 COM Ports	User assignable to: NMEA output (0-5), Binary output (0-5), Auxiliary GNSS input (0-2), Base GNSS correction input (0-2)

3. NMEA ASCII OUTPUT

Parameters	NMEA Standard ASCII messages: Position ($INGGA), Heading ($INHDT), Track and Speed ($INVTG), Statistics ($INGST), Attitude ($PASHR, $PRDID), Time and Date ($INZDA, $UTC)
Rate	Up to 50 Hz (user selectable)
Configuration	Output selections and rate individually configurable on each assigned com port

4. HIGH RATE ATTITUDE OUTPUT

Parameters	User selectable binary messages: attitude, heading, speed
Rate	Up to 200 Hz (user selectable)
Configuration	Output selections and rate individually configurable on each assigned com port

5. AUXILIARY GNSS INPUTS

Parameters	NMEA Standard ASCII messages: $GPGGA, $GPGST, $GPGSA, $GPGSV Uses Aux input with best quality
Rate	1 Hz

6. BASE GNSS CORRECTION INPUTS

Parameters	RTCM V2.x, RTCM V3.x, CMR and CMR+, CMRx input formats accepted. Combined with raw GNSS observables in navigation solution
Rate	1 Hz

7. DIGITAL I/O

1PPS	1 pulse-per-second Time Sync output, normally high, active low pulse
Event Input (2)	Time mark of external events. TTL pulses > 1 msec width, rising or falling edge, max rate 200 Hz

8. USER SUPPLIED EQUIPMENT

- PC for POSView Software (Required for configuration): Pentium 90 processor (minimum), 16 MB RAM, 1 MB free disk space, Ethernet adapter (RJ45 100 base T), Windows 98/2000/NT/XP/Windows 7
- PC for POSPac MMS Post-processing Software: Pentium III 800Mhz or equivalent (minimum), 512 MB RAM, 400 MB free disk space, USB Port (For Security Key), Windows XP or Windows 7

Scan the QR Code on your mobile device to access information on POS MV

Headquarters: 85 Leek Crescent Richmond Hill, ON Canada L4B 3B3 T +1.905.709.4600 F +1.905.709.6027
United Kingdom: Forester's House, Old Racecourse Oswestry UK SY10 7PW T +44 1691 659359 F +44 1691 659299
USA: 17461 Village Green Drive, Houston TX USA 77040 T +1.713.896.9900 F +1.713.896.9919
marine@applanix.com
www.applanix.com

applanix
A TRIMBLE COMPANY

capture everything. precisely.

Leica GPS1200
Technical specifications and system features

GPS1200 receivers	GX1230 GG/ATX1230 GG	GX1230/ATX1230	GX1220	GX1210
GNSS technology	SmartTrack+	SmartTrack	SmartTrack	SmartTrack
Type	Dual frequency	Dual frequency	Dual frequency	Single frequency
Channels	14 L1 + 14 L2 GPS 2 SBAS 12 L1 + 12 L2 GLONASS 72 Channels	12 L1 + 12 L2 GPS 2 SBAS	12 L1 + 12 L2 GPS 2 SBAS (with DGPS option)	12 L1 2 SBAS (with DGPS option)
RTK	SmartCheck+	SmartCheck	No	No
Status indicators	3 LED indicators: for power, tracking, memory			

GPS1200 receivers	GX1230 GG/GX1230/GX1220	GX1210	ATX1230 GG/ATX1230
Ports	1 power port, 3 serial ports, 1 controller port, 1 antenna port		1 power/controller port, Bluetooth® port
Supply voltage,	Nominal 12 VDC		Nominal 12 VDC
Consumption	4.6 W receiver + controller + antenna		1.8 W
Event input and PPS	Optional:	Optional:	
	1 PPS output port	1 PPS output port	
	2 event input ports	2 event input ports	
Standard antenna	SmartTrack+ AX1202 GG	SmartTrack AX1201	SmartTrack+ ATX1230 GG
Built-in groundplane	Built-in groundplane	Built-in groundplane	Built-in groundplane

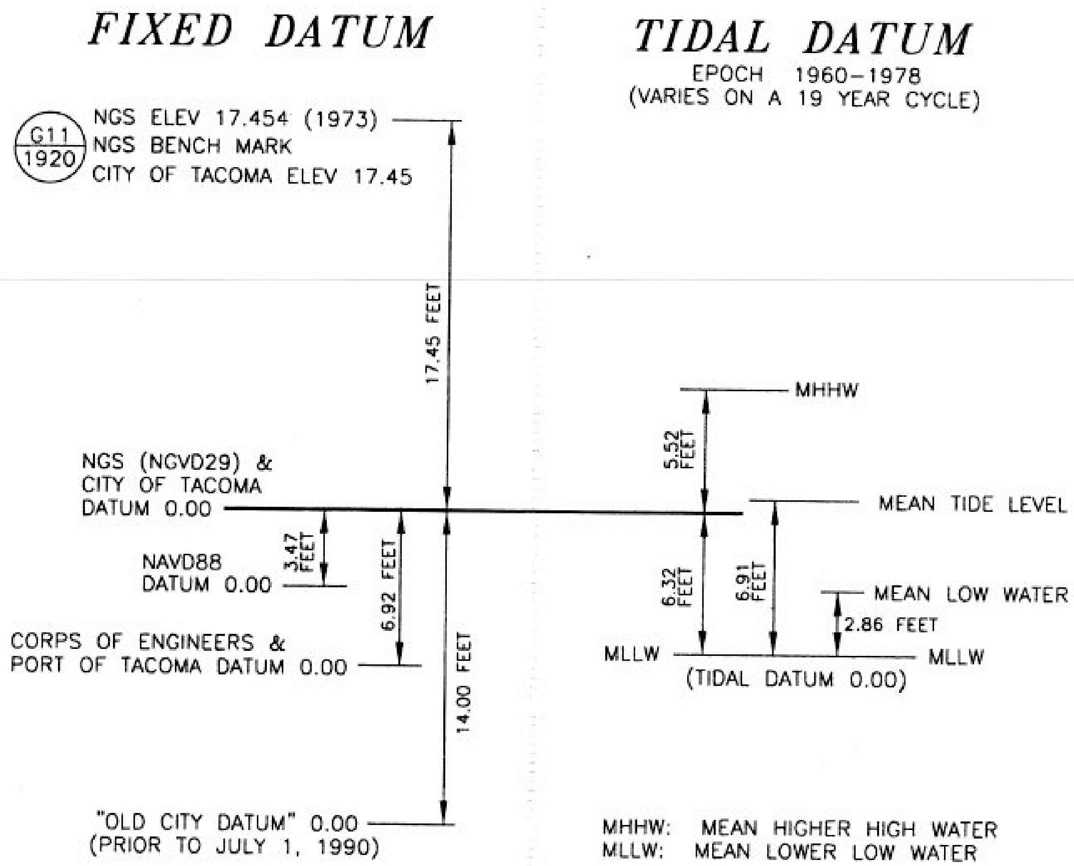
The following apply to all receivers except where stated.

Power supply	Two Li-Ion 3.8 Ah/7.2 V plug into receiver. One Li-Ion 1.9 Ah/7.2 V plugs into ATX1230 and RX1250.
Plug-in Li-Ion batteries Same for GPS and TPS	Power receiver + controller + SmartTrack antenna for about 15 hours (for data logging). Power receiver + controller + SmartTrack antenna + low power radio modem or phone for about 10 hours (for RTK/DGPS). Power SmartAntenna + RX1250 controller for about 5 hours (for RTK/DGPS)
External power	External power input 10.5 V to 28 V.
Weights	Receiver 1.20 kg. Controller 0.48 kg (RX1210) and 0.75 kg (RX1250). SmartTrack antenna 0.44 kg. SmartAntenna 1.12 kg. Plug-in Li-Ion battery 0.09 kg (1.9 Ah) and 0.19 kg (1.9 Ah). Carbon fiber pole with SmartTrack antenna and RX1210 controller: 1.80 kg. All on pole: carbon fiber pole with SmartAntenna, RX1250 controller and plug-in batteries: 2.84 kg.

Temperature ISO9022 MIL-STD-810F	Operation:	Receiver	–40° C to +65° C
		Antennas	–40° C to +70° C
		Controllers	–30° C to +65° C
	Storage:	Receiver	–40° C to +80° C
		Antennas	–55° C to +85° C
		Controllers	–40° C to +80° C
Humidity ISO9022, MIL-STD-810F	Receiver, antennas and controllers Up to 100 % humidity.		
Protection against water, dust and sand IP67, MIL-STD-810F	Receiver, antennas and controllers: Waterpoof to 1 m temporary submersion. Dust tight		
Shock/drop onto hard surface	Receiver: withstands 1 m drop onto hard surface. Antennas: withstand 1.5 m drop onto hard surface.		
Topple over on pole	Receiver, antennas and controllers: withstand fall if pole topples over.		
Vibrations ISO9022 MIL-STD-810F	Receiver, antennas and controllers: withstand vibrations on large construction machines. No loss of lock.		

Appendix C. Thea Foss Vertical Datum Description

TACOMA PUBLIC WORKS VERTICAL DATUMS



Revised February 2004 using data from
U S Army Corps of Engineers, Seattle District
South Puget Sound Region 90 – Tacoma

Dave Maroon, PLS
Tacoma Public Works
Chief Surveyor
phone: 253–591–5772

Appendix D. Survey Log Sheets

Tetra Tech EC, Inc. Survey Log Sheet

Date: 4/29/2014 Julian Date: 119 Reach / Area: To: Survey Name:

Survey Vessel: R/V Humes Surveyor(s): K. Enright C.Sapusek Time Zone: UTC
Survey Type: Multibeam Captain: G. Piercey Job Name Modifier:
Client: PSE / Pacificorp

Device Information

	POS MV Primary	Port SeaBat 7125	Stbd SeaBat 7125	Leica RTK GPS	
Starboard:	0.000	-0.722	1.306	0.000	
Forward:	0.000	16.181	16.053	0.000	
Vertical:	0.000	0.807	0.764	-6.280	*hgt to imu
Yaw:					
Pitch:					
Roll:					
Latency:					

SVP File:	N/A
Patch Test Date:	
GAMS Cal Date	

Start Time	Stop Time	Raw File Name	Line Type	Survey Direction	Survey Speed	Comments
22:25:55	22:29:35	000_2225	Standard	south	3.3	
22:30:18	22:34:04	000_2230	Standard	north	3.7	
22:38:46	22:42:56	000_2238	Standard	south	3.35	
22:43:42	22:48:07	000_2243	Standard	north	3.92	
22:49:01	22:53:30	000_2249	Standard	south	2.94	
22:54:12	*22:59:45*	000_2254	Standard	north	2.28	
23:00:37	23:06:05	000_2300	Standard	south	3	
23:07:07	23:11:30	000_2307	Standard	north	2.16	
23:12:31	23:15:13	000_2312	Standard	north	2.68	
23:18:15	23:20:58	000_2318	standard	south	1.65	
23:21:01	23:21:42	000_2320	standard	south	1.6	
23:21:52	23:25:00	000_2321	Standard	north	2.06	
23:25:30	23:35:13	000_2325	Standard	south	1.83	
23:35:41	23:37:50	000_2335	Standard	south	1.46	
23:38:22	23:41:07	000_2338	standard	north	3.18	
23:41:54	23:54:36	000_2341	Standard	south	1.33	
23:55:35	23:56:51	000_2355	standard	West	1.09	
23:57:54	0:01:05	000_2357	Standard	South	3.2	LOST DEPTH(UNKNOWN)
0:01:36	0:04:08	000_0001	Standard	South	1.66	
0:04:53	0:06:09	000_0004	Standard	South	3.03	
0:08:35	0:09:51	000_0008	Standard	East	2.45	

0:10:20	0:12:04	000_0010	Standard	West	2.12	
0:12:49	0:14:16	000_0012	Standard	south	1.51	
0:14:50	0:15:40	000_0014	Standard	north	1.69	
0:16:03	0:16:56	000_0016	Standard	East	2.18	
0:18:10	0:19:11	000_0018	Standard	West	2.32	
0:20:09		000_0020	Starboard Shore	East	1.6	
0:21:07		000_0021	Standard	East	1.8	
0:22:36	0:25:56	000_0022	Starboard Shore	north	1.8	
0:26:43		000_0026	Port Shore	south	1.8	
0:29:06		000_0029	Standard	West	0.8	
0:30:49	0:33:18	000_0030	Port Shore	north	2.1	
0:33:18		000_0033	Port Shore	north	2.2	T
0:37:18	0:38:22	000_0037	Port Shore	south		BACKWARDS
0:38:35	0:39:45	000_0038	Starboard Shore	SOUTH	3.1	
0:39:45		000_0039	Starboard Shore	south	3.3	lieca data froze, reboot on line
0:42:15		000_0042	Starboard Shore	East	1.8	
0:44:55		000_0045	Starboard Shore	north		
0:45:59	0:47:37	000_0046	Port Shore	south	2.5	
0:48:26	0:49:04	000_0048	Standard	East	2	
						ctd taken
0:59:47	1:01:06	300_0059	Cross Line	East	2.5	
1:02:28	1:04:19	000_0102	Standard	West		
1:06:48		000_0106	Standard	south	1.8	hit the heads and did some real damage
						patch test
		500A0142	Junk			
1:43:29	1:44:05	500_0143	patch	south	3.8	yaw on pilings
1:44:55		500_0145	patch	North	3.7	yaw on pilings
1:46:47	1:47:57	500_0146	patch	south	3.5	yaw on pilings
1:48:45	1:49:49	500_0148	patch	North	2.81	yaw on pilings
1:50:45	1:51:55	501.015	patch	south	3.67	
1:52:44	1:53:46	501_0152	patch	North	2.42	
1:54:42	1:55:45	502_0154	patch	south	3.25	
1:56:31	1:57:48	502_0156	patch	North	3	
1:59:33	2:01:55	000_0159	Standard	South	1.5	
2:02:56	2:04:28	000_0202	Standard	North	2.1	
2:04:37	2:05:11	000_0204	Standard	West	3.15	
2:07:00		000_0207	Standard	East	1.67	
2:08:45	2:10:08	000_0208	Standard	East	0.66	Collected in reverse

2:11:11	2:12:54	000_0211	Standard	North	2.15	
2:14:49	2:17:59	000_0214	Standard	South	2	
2:19:55	2:21:57	000_0219	Standard	South	2.35	
2:22:52	2:24:56	000_0222	Standard	North	3.15	
2:26:52	2:28:47	000_0226	Standard	South	3.21	
						end POSPac at 02:45
						ctd taken
Survey Manager:				Signature:		

Appendix E. ASCII ENZ Data Set (delivered electronically)

APPENDIX C

FIELD NOTES

APPENDIX C.1

LOG BOOK AND SAMPLE LOG FORMS

4/27/14

1300 Jen, Lou, + Colin in Tacoma
setting up control

1400 Jen + Lou at Dock Street Marina
moving to deploy bouys at cap corners

15 45 finished setting bouys

Actuals

80 ft btw SW + NW

75 ft btwn NE + SE

66 ft btw SW to SE

70 ft btw NW + NE

Actual Placements were set for ~~At~~ SE + SW
Cap NE using Hypack
and NE + NW were set by measurement
of distance.

Off set of Total Station ~~on~~ placing cap
~ 75 feet N

Cap SE	1160647.6250 E	702370.4720 N
Cap SW	1160582.6714 E	702354.8729 N
Cap NW	1160570.5306 E	702434.2942 N
Cap NE	1160639.5211 E	702444.3003 N

4/28/14 Thu Fox

0700 Jen Hawkins arrived at Fox Land
met Joe Germano, Dave Browning
Lou down boat one for Dock Street Marina
Mob up SPI camera
H + S briefing

0926 at WC-01B for 1st SPI location
No view of cap in image
continued on for rest of stations.
eyed locations under the bridge
between bouys. No hypoxia
locations collected at
WC-08
WC-13
WC-09

1300 Joe + Dave done with SPI
Demob boat of camera

1347 Eric Ripley + Anthony wright
on site
Mob up grab sampler at
Fox Landing
1430 Samples on boat + consult
1440 Amanda McKay from Floyd Snider
arrived.

4/28/14 Thu Fox.
1300 H + S briefing

1526 at S-17 photos 23-28
14.8 ft deep
1616 at S-19 photos 29, 30

1659 at S-15 photos 31, 32

1741 at S-24 photos 33, 34, 35

1842 Jen + Amanda left site
to drop off sample
Anthony + Lou to Dock St Marina
1910 Jen dropped off sample at ARI
after hours drop.

4-29-14

0700 Jon Harkin, Seth Jones, + Amanda McKay met Orthmen whyte + Lou Schwartz at public dock

Loaded supplies

0715 H + S Briefing

0718 Checking power for Ag unit.

0754 Fixed power issue

0808 Rinsate Blank for surface grabs RB-01

0839 RC/WC-02

Brought Seth to dock to process R-01

(0810 Collecting R-01 - 5 reps for Seth)

Did not hit clay layer of WC-02

Both aliquotes from 1 grab.

0839 WC-02 photo 37-39

0839 RC-02 photo 40

0945 collecting R-02 for Seth - 5 reps

0957 RC/WC-04 collected 1 grab

0957 WC-04 photos 48

0957 RC-04 photos 49

1037 at R-03 for Seth - 5 reps

1044 RC/WC-08 WC-08 photo 55 RC-08 photo 56, 57

1130 - crazy approached us to tell us to not tie up to public dock

Sue Dowey - Foss waterway Development

253-597-8122

4-29-14

1140 at R-04 for Seth - 5 reps

1149 Collecting RC/WC-11

WC-11 photo 58, 59

RC-11 photo 60

Spoke to Sue Dewey's assistant (Leslie?) who informed us we could load and unload, but cannot tie to dock.

1245 Seth Jones samples completed + processed.

1249 RC/WC-09

WC-09 photo 61

RC-09 photo 62

1344 WC-13 photo 63-66

Duplicate WC-15

1435 WC-14 photo 67

1523 RC/WC-12

WC-12 photo 68

RC-12 photo 69, 70

1630 Packed up truck + headed to lab

1711 Sarat lab dropping off cores

Orthmen + Lou docked at Dock St Marina

"[illegible]"

4-30-14

0700 Jen Hawkins & Joanne Hobson arrived at Fox Landing
Met Amanda McKay at boat
Lou & Anthony pulled the boat up for loading.

0720 H & S briefing

0730 at RC/WC-03
0732 WC-03 photo 71
RC-03 photo 72-74

0815 at RC/WC-06
0818 WC 06 ~~75~~ photo 75
RC-06 photos 76-78

0858 at RC/WC-07
0901 WC-07 photo 84-91
RC-07 photo 79-83

0940 RC/WC-05
0946 WC-05 photo
RC 05 photo

10:30 Jen on shore to collect SC & RC samples

4-30-14

1037 RC/WC-10
WC-10 photo
RC-10 photos

1045 Jen collected 4 aliquots for SC-04 photo 116

1110 Jen collected 4 aliquots of SC-05 photo 117

1130 Jen called RC-14
collected Duplicate RC-15 photo 118

1200 Jen collected RC-13
photo 119

1223 RC/WC-01
WC-01 photo 120
RC-01 photo 121

1245 SC-02 photo 122

1306 SC-01 photo 123

4-30-14
1400 Completed all sampling
De mobing boat of surface
water sampling gear
1445 loading power grab int
Eric Ribony's truck
1500 Eric left site
1500 Rinsate Blank for Slope Cap
Y10-RB-02
1600 Joanna + Jennifer left site
to go to lab
Lou + Norkie finished getting
fuel in the boat.
1630 Jo + Jen at lab dropping off samples
1800 Lou Schwartz + Onthonin
completed vibracore mob

5-1-14
0700 Jim Hawkins met Lou Schwartz
+ Onthonin at Ross Landing /
Public Dock
0720 Set up weight plate for Vibracore
0755 at WC-01B
Setting anchors
Collecting Core
0815 Center is up 6.7 ft on core tube
Depth in core 16.5 - 22 ft
2 ~~ft~~ 3 ~~ft~~ head space
Accepted approx 5.5 ft ~~[illegible]~~ Rec
Core was bent ~3 ft from
the bottom, likely due to drift.
~~All~~ Anchors not holding well in silt.
and tide is pushing
Decided to add floats
Tied up to dock to adjust for floats
0853 Headed to WC-04
0919 Collected 1st attempt WC-04a
w/ float package
14.2 ft water
only 1 ft recovery
time 9-15 = 6 ft per
silt - ~4 ft per
quarter - didn't move

5-1-14

940 2nd attempt at WC-04, not using floats

Line at 9 ft to 17.5 ft = 6.5

silt line at 5' 4"

gaiter didn't rise as high as silt

medium to coarse sand at both

head space 5'

yielded ~3 ft of core,

acceptable since 1st attempt was

not accepted.

WC-06

1st attempt

0951 Dropping anchors

1003 12 ft deep

no floats used - too shallow

line moves 8.5 - 15

silt line 5 ft

Headspace 5.3 ft

~3 ft of Recovery.

sand at bottom

1025 WC-05

getting into position next to

public dock

1030 11.4 ft water

line 9 ft - 16 ft

Gaiter didn't move as far as silt line

silt line 6 ft

Sandy at bottom of cc

Head space - 4.9 ft

1155 WC-12 - 1st attempt

getting into position close to shore

anchors in

1107 no floats 10 ft of water

line 7.5 - 12 ft

silt line 4.2 ft

no plug in core catcher.

Head space 6.3 ft

leaves ~2 ft recovery

Trying again

WC-12 b

line 8 - 12. Bouncing around - not

~~gaiter~~ ~~was~~ penetrating further

gaiter moved 5.2 ft. Plug in cc,

Accepted. 6.2 ft headspace

"Rite in the Rain"

5-1-14

1134 WC 10 a
9.9 of water at 1141
line 8-14
silt line 6.1
Dropped out of core tube on
Retrieval.
~~Next~~ No recovery.

1200 Put a new liner in core tube for
2nd attempt.
1210 8.3 ft of water
line 7-13 ft
greater (no silt line as it
washed off upon retrieval)
moved up 6.8 ft
Head space 3.1 ft
accepted.

1223 Pulling anchors, trying to dock
1230 Land breach. Notified Gary of status,
1230 De mob boat
1400 Jen left Foss landing
& dropped off supplies at AKI
+ warehouse at port,

5-2-14

0700 Jen & Joann met Lou & Onthonis
at Foss Landing
loaded cores into truck
900 Jen, Jo, Onthonio & Lou
to AKI
930 Lou & Onthonio to Bothell
1015 Logging WC-01B
3 samples
Did not go through cap
1115 Logging WC-06. Onthonio back at processing
3 samples
Did not go through cap
1215 Opening WC-12 b
3 samples Did not go through cap
13:00 opened WC-04 b
3 samples
Did not go through cap
1350 Opening WC-05
3 samples.
Went through cap into black silty fine sand
with lots of muscle shells at bottom
of CC

/

"[illegible]"

5-2-14

1445 open WC-10b
3 samples
black sand at bottom
no odor no sheen.
just black medium sand
from 3.4 - 4.1 in cc

1534 collecting Field blank
410-RB-03
from core catcher, bowl, spoon

1600 Decon processing area
1648 Leaving A&I for Tacoma
to dump mud
1930 Back at Warehouse to finish
decon

JR

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. S-17
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-28-14 Time: 15:26 Sampled by: [illegible] Checked by: AM
Equipment: Power Grab
Location Description:

Deployment: A Time: 1526 Northing: 702546.89 Easting: 1160672.31
Accepted / Rejected Bio / Chem Water Depth 14.8 Penetration 22 cm RPD
Sediment (density, color, type): Dark gray silt with sand overlying coarse sand (cap material) which is dark gray with silt
Sediment Odor (type and magnitude): Slight sulphur odor
Biological (flora and fauna): Shell hash, live crab, worm tubes
Sheen None Debris ~~shell~~ shell hash
Comments: 12 cm of overlying silt over Sand cap material

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna): [illegible]
Sheen Debris
Comments:

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	Sample No. S-19
	Project Name: Thea Foss Yr 10 OMMP
	Project No.: 194-4974

Date: 4-28-14 Time: 1616 Sampled by: JH Checked by: AM

Equipment: Power Grab

Location Description:

Deployment : A Time: 1616 Northing: 702664.82 Easting: 1160601.16

Accepted / Rejected Bio / Chem Water Depth 19.7 Penetration 27 RPD [illegible]

Sediment (density, color, type): Dark Gray sandy silt over silty coarse sand

Sediment Odor (type and magnitude): Very slight sulphur odor

Biological (flora and fauna): worm tubes

Sheen None Debris —

Comments: 9 cm of sandy silt on top of silty sand cap material

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	Sample No. S-15
	Project Name: Thea Foss Yr 10 OMMP
	Project No.: 194-4974

Date: 7-28-14 Time: 1659 Sampled by: [illegible] Checked by: Am

Equipment: Power Grab

Location Description:

Deployment : A Time: 1659 Northing: 702758.66 Easting: 1160598.14

Accepted / Rejected Bio / Chem Water Depth 20.5 Penetration 22 RPD —

Sediment (density, color, type): Dark Gray coarse sand with silt

Sediment Odor (type and magnitude): No

Biological (flora and fauna): shell hash, worm, clam shell, mussel shell

Sheen None Debris

Comments: 0-1 cm (in place) of dark gray sandy silt over coarse sand with silt (~~also~~ dark gray)

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. S-24
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-28-14 Time: 1741 Sampled by: YH Checked by: AM
Equipment: Power Grab
Location Description:

Deployment :	A	Time:	1741	Northing:	702543.25	Easting:	1160503.31
Accepted / Rejected		Bio / Chem		Water Depth	11.2	Penetration	18
RPD	—						

Sediment (density, color, type): dark gray silty coarse sand
Sediment Odor (type and magnitude): Slight Sulphur
Biological (flora and fauna): shell hash
Sheen: None Debris: plant
Comments: 0-1 cm of dark grey silt over coarse sand

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

YH

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	Sample No. RC/WC-Ø4
	Project Name: Thea Foss Yr 10 OMMP
	Project No.: 194-4974

Date: 4-29-14 Time: 955 Sampled by: [illegible] Checked by: [illegible]

Equipment: Power Grab

Location Description:

WC-04
RC-04

Deployment: A Time: 957 Northing: 702223.66 Easting: 1160556.85

Accepted / Rejected Bio / Chem Water Depth 9.0 Penetration 25 RPD 1 mm

Sediment (density, color, type): Olive gray sandy silt over coarse sand

Sediment Odor (type and magnitude): sulphur

Biological (flora and fauna): Worm tubes, clam shell

Sheen 1 spot, 1cm width, (3cm below surface) Debris plant / leaf

Comments: 25 cm of silt ~~over sand cap~~, at 22cm, stiffer clayey sandy silt

Deployment: Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment: Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment: Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. RC/WC-01
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-29-14 Time: 0839 Sampled by: JH Checked by: Am
Equipment: Power Grab
Location Description:

Deployment: 4-29-14 Time: 0839 Northing: 702127.41 Easting: 1160694.32
Accepted / Rejected Bio / Chem Water Depth 11.2 Penetration 26 RPD —
Sediment (density, color, type): Dark Gray Sandy silt
Sediment Odor (type and magnitude): slight sulphur
Biological (flora and fauna): None
Sheen No Debris leaf/plant + garbage
Comments: all silt - No cap material layer reached

WC-02
RC-02

~~RC-02~~

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No.	RC/WC-08
Project Name:	Thea Foss Yr 10 OMMP
Project No.:	194-4974

Date: 4-29-14 Time: 10:40 Sampled by: JH Checked by: AM

Equipment: Power Grab

Location Description:

WC-08
RC-08

Deployment : A Time: 10:44 Northing: proposed 7024345 Easting: 1160586.0

Accepted / Rejected Bio / Chem Water Depth 7.2 Penetration 25 RPD 1mm

Sediment (density, color, type): Dark gray sandy silt over olive gray medium to coarse olive gray silt

Sediment Odor (type and magnitude): Moderate sulphur

Biological (flora and fauna): worm tubes, shells

Sheen None Debris plant / leaves

Comments: 13.5 cm of silt over sand

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

JH

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	**Sample No.** RC/WC-11
	Project Name: Thea Foss Yr 10 OMMP
	Project No.: 194-4974

Date: 4-29-14 Time: 1145 Sampled by: VK Checked by: AM

Equipment: Power Grab

Location Description:

Deployment : A Time: 1149 Northing: 702714.05 Easting: 1160668.21

Accepted / Rejected Bio / Chem Water Depth 6.7 Penetration 26 RPD –

Sediment (density, color, type): olive gray fine sandy silt

Sediment Odor (type and magnitude): ~~No~~ slight sulphur odor upon homogenization

Biological (flora and fauna): shells, live clam, worm tubes

Sheen 1 spot, ~3 cm, at 4 cm below surface Debris

Comments: 15 cm of silt

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

VK

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. RC/WC-09
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-29-14 Time: 1249 Sampled by: VH Checked by: AM
Equipment: Power Grab
Location Description:

Deployment : A Time: 1249 Northing: Proposed 702452.3 Easting: 1160653.5
Accepted / Rejected Bio / Chem Water Depth 9.1 at B4 Penetration 23 RPD

Sediment (density, color, type): Dark gray fine sandy silt over silty fine sand
Sediment Odor (type and magnitude): Moderate sulpher odor
Biological (flora and fauna): worm tubes
Sheen None Debris leaf / plant
Comments: 21 ~~23~~ cm silt over fine sand

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris VH
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	**Sample No.** WC-13 **Project Name:** Thea Foss Yr 10 OMMP **Project No.:** 194-4974

Date: 4-29-13 Time: 1344 Sampled by: VH Checked by: Am

Equipment: Power grab

Location Description:

WC-13
WC-15-SD

Deployment : A Time: 1344 Northing: 702459.5 Easting: 1166603.4

Accepted / Rejected Bio / Chem Water Depth 9.2 Penetration 17 RPD 1 mm

Sediment (density, color, type): Dark gray fine sandy silt over dark gray fine sand over dark gray coarse sand cap.

Sediment Odor (type and magnitude): ~~Dark gray~~ Sulphur - slight

Biological (flora and fauna): Worm tubes

Sheen None Debris

Comments: 13 cm of silt over fine sand + then coarse sand
Duplicate WC-15-SD

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments: VH

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. WC-14
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-29-14 Time: 1435 Sampled by: JW Checked by: AW
Equipment: Power Grab
Location Description:

WC-14

Deployment : A Time: 1436 Northing: 702395.68 Easting: 1160608.85
Accepted / Rejected Bio / Chem Water Depth 11.0 Penetration 15 RPD Lower
Sediment (density, color, type): Dark grey fine sandy silt
Sediment Odor (type and magnitude): moderate sulphur
Biological (flora and fauna): worms, shell,
Sheen None Debris plant material
Comments: 15 cm silt

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

JW

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	**Sample No.** RC/WC-12 **Project Name:** Thea Foss Yr 10 OMMP **Project No.:** 194-4974

Date: 4-29-14 Time: 1523 Sampled by: JH Checked by: AM

Equipment: Power Grab

Location Description:

WC-12
RC-12

Deployment: A Time: 1523 Northing: 702730.14 Easting: 1160501.52

Accepted / Rejected Bio / Chem Water Depth 12.9 Penetration 25 RPD 1mm

Sediment (density, color, type): Dark grey fine sandy silt over coarse sand cap material (dark grey)

Sediment Odor (type and magnitude): ~~st~~ slight sulphur

Biological (flora and fauna): Crabs (6) up to 7cm, worm tubes

Sheen No Debris plant/leaf

Comments: 11 cm silt

Deployment: Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment: Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment: Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

WC/RC-03

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No.: RC/WC -03
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-30-14 Time: 0730 Sampled by: [illegible] Checked by: AM
Equipment: Power Grab
Location Description:

Deployment: A Time: 0732 Northing: 702104.25 Easting: 1160511.35
Accepted / Rejected Bio / Chem Water Depth 14.1 Penetration 21.5 RPD —
Sediment (density, color, type): Dk gray, fine sandy SILT over dk gray silty fine medium SAND
Sediment Odor (type and magnitude): None Bottom 6cm coarse sand cap material.
Biological (flora and fauna): Few shells, worm tube
Sheen: none Debris: leaf/plant debris
Comments: 9cm SILT,

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment: Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. RC/WC-06
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4/30/14 Time: 0818 Sampled by: JH Checked by: AM
Equipment: Power Grab
Location Description:

WC-06
RC-06

Deployment : A Time: 0818 Northing: 702251.52 Easting: 1160427.68
Accepted / Rejected Bio / Chem Water Depth 15.2' Penetration 25cm RPD none
Sediment (density, color, type): ~~dk~~ olive gray, fine sandy SILT
Sediment Odor (type and magnitude): Moderate sulfur odor
Biological (flora and fauna): Shells (few), live crab, worm tubes, ~~numerous~~ several bivalves, ~~trash (wrapper)~~
Sheen none Debris trash (wrapper)
Comments: 18cm SILT ; ~~Fine sandy silt w/ clay @ bottom of grab (>18cm)~~
>18cm dk gray fine SAND w/ pockets of fine sandy SILT w/clay

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

JH

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	**Sample No.** ~~TFO~~ RC/WC-07 **Project Name:** Thea Foss Yr 10 OMMP **Project No.:** 194-4974

Date: 4/30/14 Time: 0901 Sampled by: JH Checked by: AM

Equipment: Power Grab

Location Description:

~~Retest~~ RC-07 RC-07 WC-07

Deployment : A Time: 0901 Northing: 702388.50 Easting: 1160459.61

Accepted / Rejected Bio / Chem Water Depth 8.9' Penetration 25cm RPD none

Sediment (density, color, type): Dk gray fine sandy SILT

Sediment Odor (type and magnitude): ~~Dk fine sandy SILT~~ Moderate sulfur smell

Biological (flora and fauna): Plant debris - leaves/twigs, live crab, few shells

Sheen none Debris plant debris

Comments: 12-23cm SILT, >12cm pockets of fine med sand in SILT

0-12- SILT @23cm fine SAND 23cm of SILT

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude): JH

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. RC/WC-05
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4/30/14 Time: 0946 Sampled by: JH Checked by: AM
Equipment: Power Grab
Location Description:

RC-05
WC-05

Deployment : A Time: 0946 Northing: 702361.56 Easting: 1160643.43
Accepted / Rejected Bio / Chem Water Depth 11.5 Penetration 25 RPD none
Sediment (density, color, type): dk gray fine sandy SILT
Sediment Odor (type and magnitude): ~~dk gray fine san~~ Slight sulfur odor
Biological (flora and fauna): Lots of plant material, bivalves/shells
Sheen none Debris Piece of Fabric/trash
Comments: Silt through to bottom of sample.

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

Deployment : Time: Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth Penetration RPD
Sediment (density, color, type):
Sediment Odor (type and magnitude):
Biological (flora and fauna):
Sheen Debris
Comments:

RC-10
WC-10

SURFACE SEDIMENT SAMPLE COLLECTION FORM	Sample No. RC/WC 10 Project Name: Thea Foss Yr 10 OMMP Project No.: 194-4974

Date: 4/30/14 Time: 1039 Sampled by: JH Checked by: AM

Equipment: Power Grab

Location Description:

Deployment : A Time: 1039 Northing: 702583.64 Easting: 1160561.96

Accepted / Rejected Bio / Chem Water Depth 9.1' Penetration 24cm RPD ~1mm lt. brown

Sediment (density, color, type): Dark ~~gravel~~ gray sandy SILT

Sediment Odor (type and magnitude): none

Biological (flora and fauna): ~~abundant~~ some plant material, tube worms

Sheen None Debris

Comments: 2-3cm SILT over cap material, med-coarse gravel
>3cm med-coarse gravel cap material

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

JH

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	Sample No. SC-01
	Project Name: Thea Foss Yr 10 OMMP
	Project No.: 194-4974

Date: 4-30-13 Time: 1306 Sampled by: OH Checked by:

Equipment: Bowl + Spoon

Location Description:

Deployment : A Time: 1306 Northing: Easting:

Accepted / ~~Rejected~~ Bio / Chem Water Depth 0 Penetration 10 RPD —

Sediment (density, color, type): Fine to medium sand, brown with layers of black,

Sediment Odor (type and magnitude): None

Biological (flora and fauna): shell

Sheen None Debris None

Comments: Black medium sand below 10 cm

Deployment : B Time: 1306 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1 mm

Sediment (density, color, type): Brown silt layer 1 mm over ~~brown~~ dark gray coarse sand, over brown coarse sand with patches of black organics

Sediment Odor (type and magnitude): None - Organic-y

Biological (flora and fauna): shells

Sheen None Debris plant debris

Comments: areas of black organics at water line

Deployment : C Time: 1306 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1 mm

Sediment (density, color, type): Brown ~~coarse sand~~ fine silty sand over dark gray coarse sand over brown coarse sand.

Sediment Odor (type and magnitude): organic-y

Biological (flora and fauna): Shells

Sheen None Debris plant debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

OH

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. SC-02
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-30-14 Time: 1245 Sampled by: [illegible] Checked by:

Equipment: Bowl & Spoon

Location Description: photo 122

Deployment: A Time: 1245 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1 mm

Sediment (density, color, type): Brown fine sandy silt over black gray silty sand over brown coarse sand cap

Sediment Odor (type and magnitude): None

Biological (flora and fauna): Shells

Sheen None Debris plant

Comments: ~~photo~~

Deployment: B Time: 1245 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1 mm

Sediment (density, color, type): Brown silt over 2 cm layer of black sandy silt

Sediment Odor (type and magnitude): slight petroleum odor

Biological (flora and fauna): shells

Sheen None Debris plant debris

Comments: Signs of black silt on surface, gas bubbles below water line

Deployment: C Time: 1245 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD

Sediment (density, color, type): Brown fine sand over layer of dark gray fine sand over brown medium sand

Sediment Odor (type and magnitude): None

Biological (flora and fauna): None

Sheen None Debris plant

Comments: Petroleum odor in vicinity of outfall

~~Deployment: Time: Northing: Easting:~~

~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~

~~Sediment (density, color, type):~~

~~Sediment Odor (type and magnitude):~~ [illegible]

~~Biological (flora and fauna):~~

~~Sheen Debris~~

~~Comments:~~

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. SC-04
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-30-14 Time: 1045 Sampled by: TJT Checked by:
Equipment: Bowl + Spoon
Location Description:

Deployment : A Time: 1045 Northing: Easting:
Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1mm
Sediment (density, color, type): Brown silty Sand on top of dark gray silty sand on top of brown silty Sand
Sediment Odor (type and magnitude): petroleum odor in black layer
Biological (flora and fauna): shell hash (Barnacles + muscle shells)
Sheen None Debris styrofoam
Comments: photo 116

~~Deployment : Time: Northing: Easting:~~
~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~
~~Sediment (density, color, type):~~
~~Sediment Odor (type and magnitude):~~
~~Biological (flora and fauna):~~
~~Sheen Debris~~
~~Comments:~~

~~Deployment : Time: Northing: Easting:~~
~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~
~~Sediment (density, color, type):~~
~~Sediment Odor (type and magnitude):~~ TJT
~~Biological (flora and fauna):~~
~~Sheen Debris~~
~~Comments:~~

~~Deployment : Time: Northing: Easting:~~
~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~
~~Sediment (density, color, type):~~
~~Sediment Odor (type and magnitude):~~
~~Biological (flora and fauna):~~
~~Sheen Debris~~
~~Comments:~~

SURFACE SEDIMENT SAMPLE COLLECTION FORM	
Sample No.	SC-03
Project Name:	Thea Foss Yr 10 OMMP
Project No.:	194-4974

Date: 4-30 Time: 11 10 Sampled by: JCt Checked by:

Equipment: Bowl + Spoon

Location Description:

Deployment : A Time: 11 10 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1 mm

Sediment (density, color, type): Brown ~~silty sand~~ Sandy (RPD), ? over dark gray silty sand over brown silty sand

Sediment Odor (type and magnitude): Petroleum odor in dark gray layer ~~over brown silty sand~~

Biological (flora and fauna): Shell (muscles + barnacles)

Sheen None Debris —

Comments: 0-10 cm

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris JCt

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM

Sample No. RC-14
Project Name: Thea Foss Yr 10 OMMP
Project No.: 194-4974

Date: 4-30-14 Time: 1130 Sampled by: [illegible] Checked by:

Equipment: Bowl + Spoon

Location Description:

RC-14
RC-15

Deployment : A Time: 1130 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration [illegible] RPD 1 mm

Sediment (density, color, type): Fine sandy silt (brown) over dark gray fine sandy silt

Sediment Odor (type and magnitude): slight petroleum in dark gray layer

Biological (flora and fauna): dead crab (3 cm)

Sheen 1 spot near bay Debris plant / needles / leaves / twigs

Comments: photo 118 Duplicate collected - RC-15

~~Deployment : Time: Northing: Easting:~~

~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~

~~Sediment (density, color, type):~~

~~Sediment Odor (type and magnitude):~~

~~Biological (flora and fauna):~~

~~Sheen Debris~~

~~Comments:~~

~~Deployment : Time: Northing: Easting:~~

~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~

~~Sediment (density, color, type):~~

~~Sediment Odor (type and magnitude):~~

~~Biological (flora and fauna):~~

~~Sheen Debris~~

~~Comments:~~

~~Deployment : Time: Northing: Easting:~~

~~Accepted / Rejected Bio / Chem Water Depth Penetration RPD~~

~~Sediment (density, color, type):~~

~~Sediment Odor (type and magnitude):~~

~~Biological (flora and fauna):~~

~~Sheen Debris~~

~~Comments:~~

SURFACE SEDIMENT SAMPLE COLLECTION FORM	**Sample No.** RC-13 **Project Name:** Thea Foss Yr 10 OMMP **Project No.:** 194-4974

Date: 4-30-14 Time: 1200 Sampled by: [illegible] Checked by:

Equipment: Bard & Spon

Location Description:

Deployment : A Time: 1200 Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 8 RPD 1

Sediment (density, color, type): Brown fine sandy silt over dark gray sandy silt over gray sandy silt

Sediment Odor (type and magnitude): Slight sewer odor

Biological (flora and fauna): shells, barnacles, muscles

Sheen 3 sheen spots Debris plant

Comments: photo 119

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

Deployment : Time: Northing: Easting:

Accepted / Rejected Bio / Chem Water Depth Penetration RPD

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen Debris

Comments:

SURFACE SEDIMENT SAMPLE COLLECTION FORM	**Sample No.** RC-AWC-01 **Project Name:** Thea Foss Yr 10 OMMP **Project No.:** 194-4974

Date: 4-30-14 Time: ______ Sampled by: AH Checked by: AH

Equipment: Bowl + Spoon

Location Description:

RC-01

Deployment : A Time: 12:23 Northing: ______ Easting: ______

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 2 RPD 1 mm

Sediment (density, color, type): Brown silty sand over dark gray silty sand

Sediment Odor (type and magnitude): None

Biological (flora and fauna): shell hash

Sheen None Debris lots of plant debris

Comments: photo 120

WC-01

Deployment : B Time: 12:23 Northing: ______ Easting: ______

Accepted / Rejected Bio / Chem Water Depth 0 Penetration 10 RPD 1 mm

Sediment (density, color, type): Brown silty sand over dark gray silty sand

Sediment Odor (type and magnitude): Very slight petroleum odor

Biological (flora and fauna): shell hash

Sheen None Debris lots of plant debris

Comments: photo 121

Deployment : ______ Time: ______ Northing: ______ Easting: ______

Accepted / Rejected Bio / Chem Water Depth ______ Penetration ______ RPD ______

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen ______ Debris ______

Comments:

Deployment : ______ Time: ______ Northing: ______ Easting: ______

Accepted / Rejected Bio / Chem Water Depth ______ Penetration ______ RPD ______

Sediment (density, color, type):

Sediment Odor (type and magnitude):

Biological (flora and fauna):

Sheen ______ Debris ______

Comments:

AH

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14	SHEET 1 OF 1
CLIENT: PacifiCorp	LOCATION ID: WC-04b
PROJECT LOCATION: Thru Fen	CORING CONTRACTOR: Tetra Tech, Inc.
VESSEL: Duck	PROJECT #: 194-4977
SEDIMENT CORING METHOD: Vibracore	LOGGED BY: Jen Hawkins

CORING SYSTEM:	P3	TOTAL PENETRATION: 5.5 ~~4~~ 6.5 5.'	6 ft
LINER TYPE:	Poly	TOTAL RECOVERY: 3	3.6 total 2.9-3.6 in CC
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	13.9 9.39	N: 702 215.23	E: 1160573.07

COMMENTS: photos 148-151

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
1	0	0.7	Dark gray, no odor, no sheen	Y10-WC04-Cb1
1	0.7	0.9	Dark gray silty fine sand, sulfur odor	"
2	0.9	1.0	~~olive~~ Dark olive gray fine sand	Y10-WC04-Cb2
2	1.0	1.9	Olive coarse sand cap material, no odor, no sheen	Y10-WC04-Cb2
Dup WC-15 3	1.9	2.9	olive coarse sand cap material, no odor, 2.3 - lense of fine sand + wood debris at 2.8 - Dark gray staining on sand - no sheen	Y10-WC04-Cb3 + Dup
Na	2.9	3.5	olive coarse sand cap material, ~~no~~ with lenses of dark gray sand. no odor, no sheen	in CC
NA	3.5	3.6	Dark gray medium sand/lense in olive ~~coarse~~ coarse sand cap material, no odor, no sheen	in CC
			Duplicate collected of WC04-Cb3	

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14		SHEET 1 OF 1	
CLIENT: Pacif. Corps		LOCATION ID: WC-12 b	
PROJECT LOCATION: The Foss		CORING CONTRACTOR: Tetra Tech, Inc.	
VESSEL: Duck		PROJECT #: 194-4974	
SEDIMENT CORING METHOD:	Vibracore	LOGGED BY:	
CORING SYSTEM:	P3	TOTAL PENETRATION: 5.2	5.2
LINER TYPE:	Poly	TOTAL RECOVERY: 3.1	3.0 total
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	9 ft 11:25	N: 702734.69	E: 1160504.78

COMMENTS: photo 144-147

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
1	0	0.6	Dark gray silt, no odor, no sheen, plant debris	Y10-WC12-Cb1
2	0.6	1.0	Olive gray fine to ~~medium~~ coarse sand cap material, no odor, no sheen	Y10-WC12-Cb2
2	1.0	1.6	Olive gray coarse sand cap material with some medium gravel, rounded	Y10-WC12-Cb2
3	1.6	2.4		Y10-WC12-Cb3
NA	2.4	2.9	Coarse sand in core catcher, olive gray	NA
NA	2.9	3.0	Dark gray medium sand, sulfur odor some plant debris	NA

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14		SHEET 1 OF 1	
CLIENT: Pacific Corps		LOCATION ID: WC-01B	
PROJECT LOCATION: Thea Foss		CORING CONTRACTOR: Tetra Tech, Inc.	
VESSEL: Duck		PROJECT #: 194-4974	
SEDIMENT CORING METHOD: VC	Vibracore	LOGGED BY:	
CORING SYSTEM: P3	PC	TOTAL PENETRATION: ~8.5	6.5
LINER TYPE: Poly	Poly	TOTAL RECOVERY: ~5.5	3.9 total, 3.4-3.9 is in CC
CORE DIAMETER 4	4	CORE COORDINATES:	
WATER DEPTH (ft):	17 at 8:15	N: 702 085.34	E: 1160588.47

COMMENTS: Photos 131-134

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
NA	0	0.4	V. dark gray fine sandy silt Very loose + wet, no sheen, organic odor	Not sampled
NA	0.4	0.7 ~~1.1~~	V. dark gray fine sand silt ~~Fine +~~ soft, wet, no sheen, slight sulphur odor	Not sampled ~~410-WC01B-Ca1~~
1	0.7	1.0	V. dark gray silty fine sand Slight sulphur odor in 0.7-0.9 layer	#1 410-WC01B-Ca1
1	1.0	1.2	Dark gray medium sand	"
1	1.2	1.4	Brown silt	"
~~2~~ 1	1.4	1.6	Brown silt with lenses of Black silt	410-WC01B-Ca1
2	1.6	2.4	olive sand cap - Coarse to fine layers of sand	410-WC01B-Ca2
3	2.4	3.4	Olive sand cap - coarse to fine layers of sand (2.4-2.6 Dark gray coarse sand, no odor, no sheen)	410-WC01B-Ca2
NA	3.4	3.9	Olive sand cap material, coarse to fine sand, no odor, no sheen (2.8-3 Dark gray coarse sand, no odor, no sheen)	in core catcher

Ca1 = 0.7-1.6

TW

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-19		SHEET 1 OF 1 WC-06	
CLIENT: Pacific Corps		LOCATION ID: WC-06	
PROJECT LOCATION:		CORING CONTRACTOR: **Tetra Tech, Inc.**	
VESSEL: Dutch		PROJECT #: 194-4974	
SEDIMENT CORING METHOD:	Vibracore	LOGGED BY:	
CORING SYSTEM:	B	TOTAL PENETRATION: 5-6.5	6 ft
LINER TYPE:	Poly	TOTAL RECOVERY: 3	3 ft total 2.6-3 in CC
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	12 ft 10:03	N: 732265.20	E: 5160435.19

COMMENTS: photos 135-138

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
1	0	~~8~~ 0.4	Dark gray silt, no odor, no sheen 1 shell	Y10-WC06-Ca1
1	0.4	0.6	Dark gray fine sand with silt	"
2	0.6	1.0	medium to coarse olive sand cap material	Y10-WC06-Ca2
2	1.0	1.1	lense of brown silt, no odor, no sheen	"
2	1.1	1.6	medium to coarse sand cap material, olive no odor, no sheen	Y10-WC06-Ca2
3	1.6	2.6	medium to coarse sand cap material, olive no odor no sheen 1 piece of gravel at 2.5	Y10-WC06-Ca3
NA	2.6	3.0	Medium to coarse sand, ~~[illegible]~~ olive, Cap material no odor, no sheen	NA Core Catch

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14	SHEET 1 OF 1
CLIENT: Pacific Corp	LOCATION ID: WC-05
PROJECT LOCATION: Theafors	CORING CONTRACTOR: Tetra Tech, Inc.
VESSEL: Duck	PROJECT #: 194-4974
SEDIMENT CORING METHOD: Vibracore	LOGGED BY:

CORING SYSTEM:	P3	TOTAL PENETRATION: 6-7	6.5
LINER TYPE:	Poly	TOTAL RECOVERY: ~3	4.4 ft total 3.7 - 4.4 ft in CC
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	11.4 1030	N: 202360.38	E: 1160629.50

COMMENTS: photos 152 - top, 153 - 155 sample, 156 - 158 CC

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
NA	0	0.7	Dark gray fine sandy silt, some plant debris, no odor, no sheen	
1	0.7	1.0	Dark gray fine sandy silt	Y10-WC05-Ca1
1	1.0	1.3	Dark gray fine sand	"
1	1.3	1.7	Olive, Coarse sand cap material medium to	"
2	1.7	2.7	Olive medium to coarse sand cap material, no sheen slight petroleum odor at 2.3, dark gray spot of sand	Y10-WC05-Ca2
3	2.7	3.7	Olive medium ~~to~~ too coarse sand cap material, no sheen Dispersed areas of dark gray sand, no odor.	Y10-WC05-Ca3
NA	3.7	4.1 ~~4.4~~	Olive medium sand grading to fine sand with brown silt lens	In core catcher
NA	4.1	4.3	Black silty fine sand ~~with lots of muscle shells at bottom 4.4~~ petroleum odor, no sheen	In core catcher
NA	4.3	4.4	Black clayey silt with lots of muscles shells no strong odor, no sheen	In very bottom of core catcher

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14		SHEET 1 OF 1	
CLIENT: PacifiCorp		LOCATION ID: WC-10b	
PROJECT LOCATION: Thea Foss		CORING CONTRACTOR: **Tetra Tech, Inc.**	
VESSEL: Duck		PROJECT #: 194-4974	
SEDIMENT CORING METHOD:	Vibracore	LOGGED BY: Jen Hawkins	
CORING SYSTEM:	P3	TOTAL PENETRATION: 6-6.8	6.8
LINER TYPE:	Poly	TOTAL RECOVERY: ~5	4.1 total, 3.4-4.1 in core catcher
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	8.3 1210	N: 702602.02	E: 1160582.95

COMMENTS: photo 159 - Surface, 160 - 162 - samples, 163 - CC

DEPTH (cm)	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
NA	0	0.4	Dark gray silty fine to medium sand no odor, no sheen	NA
1	0.4	1.4	Olive medium to coarse sand cap material no odor, no sheen	Y10-WC10-CB1
2	1.4	2.4	Olive medium to coarse sand cap material no odor, no sheen	Y10-WC10-CB2
3	2.4	3.1	Olive medium to coarse sand cap material no odor, no sheen	Y10-WC10-CB3
3	3.1	3.4	Dark gray fine to medium sand no odor, no sheen	Y10-WC10-CB3
NA	3.4	4.1	Black medium sand, no odor, no sheen	in core catcher

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14		SHEET 1 OF 1	
CLIENT: PacifiCorps		LOCATION ID: WC-04a	
PROJECT LOCATION: Then Fos		CORING CONTRACTOR: Tetra Tech, Inc.	
VESSEL: Duck		PROJECT #: 194-4974	
SEDIMENT CORING METHOD:	Vibracore	LOGGED BY:	
CORING SYSTEM:	P3	TOTAL PENETRATION: 4-6	
LINER TYPE:	Poly	TOTAL RECOVERY: 1	
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	14.2 0919	N:	E:

COMMENTS:

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
			Rejected	

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14		SHEET 1 OF 1	
CLIENT: Pacifi Corps		LOCATION ID: WC-12 a	
PROJECT LOCATION: Thea Foss		CORING CONTRACTOR: **Tetra Tech, Inc.**	
VESSEL: Duck		PROJECT #: 194-4974	
SEDIMENT CORING METHOD:	Vibracore	LOGGED BY: Jen Hawkins	
CORING SYSTEM:	P3	TOTAL PENETRATION: 4.2-4.5	4.2
LINER TYPE:	Poly	TOTAL RECOVERY: 2	1.5
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	10 ft 11:07	N: 702 733.80	E: 1160506.40
COMMENTS:			

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
			Rejected	

SEDIMENT CORE LOG

TETRA TECH

DATE: 5-1-14	SHEET 1 OF 1
CLIENT: Pacific Corps	LOCATION ID: WC-10a
PROJECT LOCATION: Thea Foss	CORING CONTRACTOR: **Tetra Tech, Inc.**
VESSEL: Dutch	PROJECT #: 194-4974
SEDIMENT CORING METHOD: Vibracore	LOGGED BY:

CORING SYSTEM:	P3	TOTAL PENETRATION:	6.2
LINER TYPE:	Poly	TOTAL RECOVERY:	~2 – lost most upon Retrieval
CORE DIAMETER	4	CORE COORDINATES:	
WATER DEPTH (ft):	9 ft 11:41	N: 702601.00	E: 1160568.78

COMMENTS:

Increment	Top	Bottom	SEDIMENT DESCRIPTION (material type/color/density or consistency)	Notes/Sample ID:
			Rejected	

APPENDIX C.2

SAMPLE PHOTOS

(ON CD)

Appendix C.2 Field Photos

Photo ID	Description	Date
P4280001	SPI	4/28/2014
P4280002	SPI	4/28/2014
P4280003	SPI	4/28/2014
P4280004	SPI	4/28/2014
P4280005	SPI	4/28/2014
P4280006	SPI	4/28/2014
P4280007	SPI	4/28/2014
P4280008	SPI	4/28/2014
P4280009	SPI	4/28/2014
P4280010	SPI	4/28/2014
P4280011	SPI	4/28/2014
P4280012	SPI	4/28/2014
P4280013	SPI	4/28/2014
P4280014	SPI	4/28/2014
P4280015	SPI	4/28/2014
P4280016	SPI	4/28/2014
P4280017	Mobilization	4/28/2014
P4280018	Mobilization	4/28/2014
P4280019	Mobilization	4/28/2014
P4280020	Mobilization	4/28/2014
P4280021	Mobilization	4/28/2014
P4280022	Mobilization	4/28/2014
P4280023	S-17	4/28/2014
P4280024	S-17	4/28/2014
P4280025	S-17	4/28/2014
P4280026	S-17	4/28/2014
P4280027	S-17	4/28/2014
P4280028	S-17	4/28/2014
P4280029	S-19	4/28/2014
P4280030	S-19	4/28/2014
P4280031	S-15	4/28/2014
P4280032	S-15	4/28/2014
P4280033	S-24	4/28/2014
P4280034	S-24	4/28/2014
P4280035	S-24	4/28/2014
P4290036	Benthos sampling crew	4/29/2014
P4290037	WC-02	4/29/2014
P4290038	WC-02	4/29/2014
P4290039	WC-02	4/29/2014
P4290040	RC-02	4/29/2014
P4290041	Benthos sampling operations	4/29/2014
P4290042	SR 509 Bridge	4/29/2014
P4290043	Benthos sampling operations	4/29/2014
P4290044	Benthos sampling operations	4/29/2014
P4290045	Benthos sampling operations	4/29/2014
P4290046	Benthos sampling operations	4/29/2014
P4290047	Benthos sampling operations	4/29/2014
P4290048	WC-04	4/29/2014
P4290049	RC-04	4/29/2014
P4290050	Benthic sampling operations	4/29/2014
P4290051	Benthic sampling operations	4/29/2014

Photo ID	Description	Date
P4290052	Benthic sampling operations	4/29/2014
P4290053	Benthic sampling operations	4/29/2014
P4290054	Grab sampling operations	4/29/2014
P4290055	WC-08	4/29/2014
P4290056	RC-08	4/29/2014
P4290057	RC-08	4/29/2014
P4290058	WC-11	4/29/2014
P4290059	WC-11	4/29/2014
P4290060	RC-11	4/29/2014
P4290061	WC-09	4/29/2014
P4290062	RC-09	4/29/2014
P4290063	WC-13	4/29/2014
P4290064	WC-13	4/29/2014
P4290065	WC-13	4/29/2014
P4290066	WC-13	4/29/2014
P4290067	WC-14	4/29/2014
P4290068	WC-12	4/29/2014
P4290069	RC-12	4/29/2014
P4290070	RC-12	4/29/2014
P4300072	RC-03	4/30/2014
P4300073	RC-03	4/30/2014
P4300074	RC-03	4/30/2014
P4300075	WC-06	4/30/2014
P4300076	RC-06	4/30/2014
P4300077	RC-06	4/30/2014
P4300078	RC-06	4/30/2014
P4300079	RC-07	4/30/2014
P4300080	RC-07	4/30/2014
P4300081	RC-07	4/30/2014
P4300082	RC-07	4/30/2014
P4300083	RC-07	4/30/2014
P4300084	WC-07	4/30/2014
P4300085	WC-07	4/30/2014
P4300086	WC-07	4/30/2014
P4300087	WC-07	4/30/2014
P4300088	WC-07	4/30/2014
P4300089	WC-07	4/30/2014
P4300090	WC-07	4/30/2014
P4300091	WC-07	4/30/2014
P4300092	RC-05	4/30/2014
P4300093	RC-05	4/30/2014
P4300094	RC-05	4/30/2014
P4300095	RC-05	4/30/2014
P4300096	RC-05	4/30/2014
P4300097	RC-05	4/30/2014
P4300098	WC-05	4/30/2014
P4300099	WC-05	4/30/2014
P4300100	WC-05	4/30/2014
P4300101	WC-05	4/30/2014
P4300102	WC-05	4/30/2014
P4300103	WC-05	4/30/2014
P4300104	RC-10	4/30/2014

Photo ID	Description	Date
P4300105	RC-10	4/30/2014
P4300106	RC-10	4/30/2014
P4300107	RC-10	4/30/2014
P4300108	RC-10	4/30/2014
P4300109	RC-10	4/30/2014
P4300110	WC-10	4/30/2014
P4300111	WC-10	4/30/2014
P4300112	WC-10	4/30/2014
P4300113	WC-10	4/30/2014
P4300114	WC-10	4/30/2014
P4300115	WC-10	4/30/2014
P4300116	SC-04	4/30/2014
P4300117	SC-03	4/30/2014
P4300118	RC-14	4/30/2014
P4300119	RC-13	4/30/2014
P4300120	RC-01	4/30/2014
P4300121	WC-01	4/30/2014
P4300122	SC-02	4/30/2014
P4300123	SC-01	4/30/2014
P4300124	Slope Cap sample processing	4/30/2014
P5010125	Vibracore operations	5/1/2014
P5010126	Vibracore operations	5/1/2014
P5010127	Vibracore operations	5/1/2014
P5010128	Vibracore operations	5/1/2014
P5010129	Vibracore operations	5/1/2014
P5010130	Vibracore operations	5/1/2014
P5020131	WC-01B	5/2/2014
P5020132	WC-01B	5/2/2014
P5020133	WC-01B	5/2/2014
P5020134	WC-01B	5/2/2014
P5020135	WC-06	5/2/2014
P5020136	WC-06	5/2/2014
P5020137	WC-06	5/2/2014
P5020138	WC-06	5/2/2014
P5020139	Sample processing	5/2/2014
P5020140	Sample processing	5/2/2014
P5020141	Sample processing	5/2/2014
P5020142	Sample processing	5/2/2014
P5020143	Sample processing	5/2/2014
P5020144	WC-12	5/2/2014
P5020145	WC-12	5/2/2014
P5020146	WC-12	5/2/2014
P5020147	WC-12	5/2/2014
P5020148	WC-04	5/2/2014
P5020149	WC-04	5/2/2014
P5020150	WC-04	5/2/2014
P5020151	WC-04	5/2/2014
P5020152	WC-05	5/2/2014
P5020153	WC-05	5/2/2014
P5020154	WC-05	5/2/2014
P5020155	WC-05	5/2/2014
P5020156	WC-05	5/2/2014

Photo ID	Description	Date
P5020157	WC-05	5/2/2014
P5020158	WC-05	5/2/2014
P5020159	WC-10	5/2/2014
P5020160	WC-10	5/2/2014
P5020161	WC-10	5/2/2014
P5020162	WC-10	5/2/2014
P5020163	WC-10	5/2/2014

APPENDIX D

SAMPLE LOCATIONS AND DESCRIPTIONS

Appendix D Sediment Sampling Locations and Descriptions

Location	Easting	Northing	Sample Time	Sample Date	Sample ID	Compacted Sample depth	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Compacted Interval and Lithologic Description
Surface Grab Samples									
RC/WC-01	1160586.1	702002.6	1223	4/30/2014	Y10-RC01-S Y10-WC01-S	0-2 cm 0-10 cm	0	10+	Surficial brown silty SAND with organic debris over dark gray silty SAND with organic debris. No distinct layer of cap material observed. Slight petroleum odor at depth (in 0-10 sample). Organic debris included shell hash and plant material. No sheen.
RC/WC-02	1160694.3	702127.4	0839	4/29/2014	Y10-RC02-S Y10-WC02-S	0-2 cm 0-10 cm	26+	26+	Dark gray sandy SILT with organic debris with a slight sulfur odor. Organic debris included plant material. Inorganic garbage/trash also found. Penetration to 26 cm, no distinct layer of sand cap material detected. No sheen.
RC/WC-03	1160511.4	702104.3	0732	4/30/2014	Y10-RC03-S Y10-WC03-S	0-2 cm 0-10 cm	9	15.5	Dark gray fine sandy SILT over dark gray silty fine to medium SAND. Organic debris: plant material, a few shells, worm tube, crab ~ 8 cm. Very slight sulfur odor. Coarse sand cap material in bottom 6cm. No sheen. Penetration to 21.5 cm.
RC/WC-04	1160556.9	702223.7	0957	4/29/2014	Y10-RC04-S Y10-WC04-S	0-2 cm 0-10 cm	25+	25+	Olive gray sandy SILT, becoming stiffer dark gray clayey sandy SILT at 22 cm. No distinct layer of cap material observed. Organic debris: plant material, clam shells, worm tubes. Slight Sulfur smell. One sheen spot, 1 cm in width, at 3 cm below surface. Penetration to 25 cm.
RC/WC-05	1160643.4	702361.6	0946	4/30/2014	Y10-RC05-S Y10-WC05-S	0-2 cm 0-10 cm	25+	25+	Dark gray fine sandy SILT. No distinct layer of cap material observed. Slight sulfur odor. Organic Debris: plant material and shells. No sheen. Penetration to 25 cm.
RC/WC-06	1160427.7	702251.5	0818	4/30/2014	Y10-RC06-S Y10-WC06-S	0-2 cm 0-10 cm	18	18	Dark gray fine sandy SILT over dark gray fine SAND with pockets of fine sandy SILT with clay. Fine sand layer at 18 cm assumed to be associated with sand cap placement, although no well defined layer of coarse sand observed. Live crab, worm tubes, and several bivalves. Organic debris: few shells. A candy wrapper was also found. Moderate sulfur odor. No sheen. Penetration to 25 cm.
RC/WC-07	1160459.6	702388.5	0901	4/30/2014	Y10-RC07-S Y10-WC07-S	0-2 cm 0-10 cm	23	23	Dark gray fine sandy SILT from 0-12 cm, 12-23 cm SILT with pockets of fine to medium sand in the SILT, at 23 cm dark grey fine SAND. Layer of fine SAND at 23 cm assumed to be associated with sand cap placement, although no well defined layer of coarse sand observed. A live crab and organic debris including shells and plant material. Moderate sulfur odor, no sheen. Penetration to 25 cm.
RC/WC-08	1160586.0	702434.5	1044	4/29/2014	Y10-RC08-S Y10-WC08-S	0-2 cm 0-10 cm	13.5	13.5	Surficial layer of brown SILT over dark gray sandy SILT over olive gray silty medium to coarse SAND. Organic debris: worm tubes, shells, plant material. Moderate sulfur odor, no sheen. Penetration to 25 cm.
RC/WC-09	1160653.5	702452.3	1249	4/29/2014	Y10-RC09-S Y10-WC09-S	0-2 cm 0-10 cm	21	21	Surficial layer of brown SILT over dark gray fine sandy SILT over silty fine SAND. Fine sand layer assumed to be associated with sand cap placement although no distinct layer of coarse sand observed. Organic debris: worm tubes and plant material. Moderate sulfur odor, no sheen. Penetration to 23 cm.
RC/WC-10	1160562.0	702583.6	1039	4/30/2014	Y10-RC10-S Y10-WC10-S	0-2 cm 0-10 cm	3	3	Surficial layer of brown SILT over dark gray sandy SILT over medium to coarse gravel cap material at 3 cm. Organic debris: worm tubes and plant material. No odor, no sheen. Penetration to 24 cm.
RC/WC-11	1160668.2	702714.1	1149	4/29/2014	Y10-RC11-S Y10-WC11-S	0-2 cm 0-10 cm	15	15	Olive gray fine sandy SILT. Transition to coarse sand cap material at 15 cm. Live clam. Organic debris: shells, plant material, worm tubes. Slight sulfur odor upon homogenization. 1 sheen spot, approximately 3 cm in diamater, at 4 cm below the surface. Penetration to 26 cm.
RC/WC-12	1160501.5	702730.1	1523	4/29/2014	Y10-RC12-S Y10-WC12-S	0-2 cm 0-10 cm	11	11	Surficial layer of brown SILT over dark gray fine sandy SILT over dark gray coarse SAND cap material at 11 cm depth. Live crabs (6) and worm tubes with plant material. Slight sulfur odor, no sheen. Penetration to 25 cm.
RC-13	1160565.9	701876.1	1200	4/30/2014	Y10-RC13-S	0-2 cm	2	2	Brown fine sandy SILT over dark gray sandy SILT over gray sandy SILT with organic debris, including shells, barnacles, muscles, and plant material. Slight sulfur odor and 3 sheen spots on surface.
RC-14	1160718.7	701872.7	1130	4/30/2014	Y10-RC14-S (Y10-RC15-SD)	0-2 cm (0-2 cm)	2	2	Brown fine sandy SILT over dark gray fine sandy SILT, with 1 dead crab (~ 3 cm), plant material. Slight petroleum odor in dark gray layer and 1 sheen spot on surface.
WC-13	1160603.4	702459.5	1344	4/29/2014	Y10-WC13-S (Y10-WC-15-SD)	0-10 cm (0-10 cm)	13	13	Surficial layer of brown SILT over dark gray fine sandy SILT. Transition to dark gray fine silty SAND at 13 cm over dark gray coarse sand cap material at 14 cm. Worm tubes. Slight sulfur odor, no sheen. Penetration to 17 cm.
WC-14	1160608.8	702395.7	1436	4/29/2014	Y10-WC14-S	0-10 cm	15+	15+	Surficial layer of brown SILT over dark gray fine sandy SILT. Organic debris: plant material, shells, and worms. Moderate sulfur odor, no sheen. Penetration to 15 cm.
S-15	1160598.1	702758.7	1659	4/28/2014	Y10-S15-S	0-10 cm	1	1	0 - 1 cm of dark gray sandy SILT over dark gray coarse SAND with silt. Organic debris: shell hash, clam and mussel shells, worms. No odor and no sheen. Penetration to 22 cm.
S-17	1160672.3	702546.9	1526	4/28/2014	Y10-S17-S	0-10 cm	12	12	Dark gray SILT with sand to 12 cm. Transition to dark gray coarse SAND cap with silt at 12 cm. Live crab. Organic debris: shell hash and worm tubes. Slight sulfur odor, no sheen. Penetration to 22 cm.
S-19	1160601.2	702664.8	1616	4/28/2014	Y10-S19-S	0-10 cm	9	9	Surficial layer of brown SILT over dark gray sandy SILT over silty coarse SAND cap material. Worm tubes. Very slight sulfur odor, no sheen. Penetration to 27 cm.

Appendix D Sediment Sampling Locations and Descriptions

Location	Easting	Northing	Sample Time	Sample Date	Sample ID	Compacted Sample depth	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Compacted Interval and Lithologic Description
S-24	1160503.3	702543.3	1741	4/28/2014	Y10-S24-S	0-10 cm	1	1	0-1 cm dark gray SILT over dark gray silty coarse SAND cap material. Organic debris: shell hash, plant material. Slight sulphur odor, no sheen. Penetration to 18 cm.
SC-01	1160442.4	702476.1	1306	4/30/2014	Y10-SC01-S	0-10 cm	<1	<1	Brown silty fine to medium SAND over dark gray coarse SAND. Plant debris, shells. No odor and no sheen.
SC-02	1160392.9	702150.4	1245	4/30/2014	Y10-SC02-S	0-10 cm	0-10	0-10	Brown fine sandy SILT over dark gray silty SAND over brown coarse SAND cap material at SC-02a. Brown SILT over black SILT at SC-02b with slight petroleum odor, signs of black SILT on surface in the vicinity with gas bubbles below the water line. Brown fine SAND over dark gray fine SAND over brown medium SAND at SC-02c. Petroleum odor in vicinity of outfall. Plant debris. No sheen.
SC-03	1160766.6	701879.6	1110	4/30/2014	Y10-SC03-S	0-10 cm	1	1	Surficial brown sandy SILT over dark gray silty SAND over brown silty SAND. Mussel and barnacle shells. Petroleum odor in dark gray silty sand layer. No sheen.
SC-04	1160749.1	702362.9	1045	4/30/2014	Y10-SC-04-S	0-10 cm	0	0	Surficial brown silty SAND over dark gray silty SAND over brown silty SAND. Petroleum odor in black sand lense. No sheen. Mussel and barnacle shells.
Environmental QC Samples									
Rinsate Blank (Compliance)	N/A	N/A	0808	4/29/2014	Y10-RB-01	N/A	N/A	N/A	N/A
Rinsate Blank (Slope Cap)	N/A	N/A	1500	4/30/2014	Y10-RB-02	N/A	N/A	N/A	N/A
Rinsate Blank (Core)	N/A	N/A	1535	5/2/2014	Y10-RB-03	N/A	N/A	N/A	N/A
Sediment Cores									
WC-01B	1160588.5	702085.3	815	5/1/2014	Y10-WC01B-Ca1	0.7-1.6 ft	N/A	N/A	0-0.4 ft very dark gray fine sandy SILT, very loose and wet, no sheen, organic odor. 0.4-0.7 ft very dark gray fine sandy SILT, soft, wet, no sheen, slight sulfur odor. 0.7-1.0 ft very dark gray silty fine SAND, slight sulfur odor in 0.7-0.9 layer. 1.0-1.2 ft dark gray medium SAND. 1.2-1.4 ft brown SILT with trace sand. 1.4-1.6 ft brown SILT with lenses of black SILT. 1.6-2.4 ft olive fine to coarse SAND layers (cap material). 2.4-2.6 dark gray coarse SAND, no odor, no sheen. 2.6-2.8 ft olive fine to coarse SAND (cap material). 2.8-3.0 ft dark gray coarse sand, no odor, no sheen. 3.0-3.4 ft olive fine to coarse SAND (cap material). 3.4-3.9 ft (in core catcher) olive fine to coarse SAND (cap material).
					Y10-WC01B-Ca2	1.6-2.4 ft			
					Y10-WC01B-Ca3	2.4-3.4 ft			
WC-04	1160573.1	702215.2	934	5/1/2014	Y10-WC04-Cb1	0-0.9 ft	N/A	N/A	0-0.7 ft dark gray fine sandy SILT, no odor, no sheen. 0.7-0.9 ft dark gray silty fine SAND, slight sulfur odor. 0.9-1.0 ft dark olive gray fine SAND. 1.0-1.9 ft olive coarse SAND (cap material), no odor, no sheen. 1.9-2.9 ft olive coarse SAND (cap material), no odor, no sheen, with lense of fine sand and wood debris at 2.3 ft, and at 2.8 ft a dark gray staining in the sand with no sheen. 2.9-3.5 ft olive coarse SAND (cap material) with lenses of dark gray sand, no odor, no sheen. 3.5-3.6 ft (in core catcher) coarse SAND (cap material) with dark gray medium SAND lense, no odor, no sheen.
					Y10-WC04-Cb2	0.9-1.9 ft			
					Y10-WC04-Cb3 (Y10-WC15-CD)	1.9-2.9 ft			
WC-05	1160629.5	702360.4	1030	5/1/2014	Y10-WC05-Ca1	0.7-1.7 ft	N/A	N/A	0-0.7 ft dark gray fine sandy SILT, some plant debris, no odor, no sheen. 0.7-1.0 ft dark gray fine sandy SILT. 1.0-1.3 ft dark gray fine SAND. 1.3-1.7 ft olive medium to coarse SAND (cap material). 1.7-2.7 ft olive medium to coarse SAND (cap material), no sheen, slight petroleum odor at 2.1 ft, dark gray spot of sand. 2.7-3.7 ft olive medium to coarse SAND (cap material), dispersed areas of dark gray sand, no sheen, no odor. 3.7-4.1 ft (in core catcher) olive medium SAND grading to fine SAND with brown silt lense. 4.1-4.3 ft (in core catcher) black silty fine SAND, moderate petroleum odor, no sheen. 4.3-4.4 ft (in core catcher) black clayey SILT with lots of mussel shells, no odor, no sheen.
					Y10-WC05-Ca2	1.7-2.7 ft			
					Y10-WC05-Ca3	2.7-3.7 ft			
WC-06	1160435.2	702265.2	1003	5/1/2014	Y10-WC06-Ca1	0-0.6 ft	N/A	N/A	0-0.4 ft dark gray SILT, no odor, no sheen, with 1 shell. 0.4-0.6 ft dark gray fine SAND with silt, no odor, no sheen. 0.6-2.6 ft olive medium to coarse SAND (cap material) with lense of brown SILT at 1.0-1.1 ft and 1 piece of gravel at 2.5 ft. Dark gray medium to coarse sand lense at 1.1-1.3 ft. 2.6-3.0 ft (in core catcher) olive medium to coarse SAND (cap material), no odor, no sheen.
					Y10-WC06-Ca2	0.6-1.6 ft			
					Y10-WC06-Ca3	1.6-2.6 ft			
WC-10	1160583.0	702602.0	1210	5/1/2014	Y10-WC10-Cb1	0.8-2.1 ft	N/A	N/A	0-0.4 ft dark gray silty fine to medium SAND, no odor, no sheen. 0.4-3.1 ft olive medium to coarse SAND (cap material), no odor, no sheen. 3.1-3.4 ft dark gray fine to medium SAND, no odor, no sheen. 3.4-4.1 ft (in core catcher) black medium SAND, no odor, no sheen.
					Y10-WC10-Cb2	2.1-2.9 ft			
					Y10-WC10-Cb3	2.9-3.8 ft			
WC-12	1160504.8	702734.7	1125	5/1/2014	Y10-WC12-Cb1	0-0.6 ft	N/A	N/A	0-0.6 ft dark gray SILT, no odor, no sheen, with plant debris. 0.6-1.0 ft olive gray fine to coarse SAND (cap material), no odor, no sheen. 1.0-1.6 ft olive gray medium to coarse SAND (cap material) with some medium rounded gravel. 1.6-2.4 ft olive gray medium to coarse SAND (cap material), no odor, no sheen. 2.4-2.9 ft (in core catcher) olive gray coarse SAND (cap material). 2.9-3.0 ft (in core catcher) dark gray medium SAND, some plant debris, sulfur odor.
					Y10-WC12-Cb2	0.6-1.6 ft			
					Y10-WC12-Cb3	1.6-2.4 ft			

Core sample submitted for analysis

Year 1 to Year 10 Depth of Material Deposited Over the Cap (2004-2014)

Location	Year 10	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 7	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description
RC/WC-01	4/30/2014	0	10+	Surficial brown silty SAND with organic debris over dark gray silty SAND with organic debris. No distinct layer of sand cap material observed. Slight petroleum odor at depth (in 0-10 sample). Organic debris included shell hash and plant material. No sheen.	4/18/2011	2	2	0.5 cm Brown SILT with organic debris over black SILT over coarse SAND at 2 cm. Slight sulfur odor on surface layer. A copepod type organism was observed. Organic debris included mussel shells, tree needles, leaf litter, and barnacles on cobbles. A piece of plastic was also observed. No sheen.
RC/WC-02	4/29/2014	26+	26+	Dark gray sandy SILT with organic debris with a slight sulfur odor. Organic debris included plant material. Inorganic garbage/trash also found. Penetration to 26 cm, no distinct layer of sand cap material detected. No sheen.	4/19/2011	36+	36+	Dark gray to black SILT with organic debris transitioning to very slightly sandy dark gray to black SILT with a sulfur odor. Organic debris included plant material, twigs, pine needles, and leaves. A rubber glove was collected in the grab sampler. Penetration to 36 cm, distinct sand cap material not detected. No sheen.
RC/WC-03	4/30/2014	9	15.5	Dark gray fine sandy SILT over dark gray silty fine to medium SAND. Organic debris: plant material, a few shells, worm tube, crab ~ 8 cm. Very slight sulfur odor. Coarse sand cap material in bottom 6cm. No sheen. Penetration to 21.5 cm.	4/19/2011	30+	30+	Surficial layer of brown SILT and organic debris over dark gray to black sandy SILT with a slight sulfur odor. Organic debris: plant material, twigs, leaves, white shell fragments, mussel shells. No distinct cap material observed in sample. No sheen. Penetration to 30 cm.
RC/WC-04	4/29/2014	25+	25+	Olive gray sandy SILT, becoming stiffer dark gray clayey sandy SILT at 22 cm. No distinct layer of cap material observed. Organic debris: plant material, clam shells, worm tubes. Slight Sulfur smell. One sheen spot, 1 cm in width, at 3 cm below surface. Penetration to 25 cm.	4/19/2011	27	32+	Surficial brown SILT and organic debris over dark gray to black slightly sandy SILT, becoming sandier with depth. Transition at 27 cm to silty SAND but no distinct cap material observed. Organic debris: plant material, twigs, leaves, clam shells, piece of wood (10 cm). Moderate sulfur smell at 10 cm depth. No sheen. Penetration to 32 cm.
RC/WC-05	4/30/2014	25+	25+	Dark gray fine sandy SILT. No distinct layer of cap material observed. Slight sulfur odor. Organic Debris: plant material and shells. No sheen. Penetration to 25 cm.	4/19/2011	19	31+	Dark gray to black, slightly sandy SILT and debris at surface becoming sandier with depth. Transition at 19 cm from SILT to dark gray to black silty SAND but no distinct cap material observed. Slight sulfur odor at surface, becoming moderate at 10 cm depth. Live crabs and bivalves were found on the surface. Organic Debris: plant material, twigs, leaves. No sheen. Penetration to 30 cm.
RC/WC-06	4/30/2014	18	18	Dark gray fine sandy SILT over dark gray fine SAND with pockets of fine sandy SILT with clay. Fine sand layer at 18 cm assumed to be associated with sand cap placement, although no well defined layer of coarse sand observed. Live crab, worm tubes, and several bivalves. Organic debris: few shells. A candy wrapper was also found. Moderate sulfur odor. No sheen. Penetration to 25 cm.	4/19/2011	26+	26+	Surficial, brown SILT and debris over dark gray to black slightly sandy SILT, becoming sandier with depth but no distinct cap material observed. Organic debris: few twigs, mussels and whole shells. Shells found at depth. A candy wrapper was also found. Slight to moderate sulfur odor. No sheen. Penetration to 26 cm.
RC/WC-07	4/30/2014	23	23	Dark gray fine sandy SILT from 0-12 cm, 12-23 cm SILT with pockets of fine to medium sand in the SILT, at 23 cm dark grey fine SAND. Layer of fine SAND at 23 cm assumed to be associated with sand cap placement, although no well defined layer of coarse sand observed. A live crab and organic debris including shells and plant material. Moderate sulfur odor, no sheen. Penetration to 25 cm.	4/20/2011	15	22+	Dark gray to black sandy SILT becoming sandier with depth but no distinct cap material observed. Transition at 15 cm depth from SILT to silty SAND. Several live crabs were found on the surface. Surficial organic debris included shells, plant material, leaves and twigs. Slight sulfur odor at 10 cm depth, no sheen. Penetration to 22 cm.
RC/WC-08	4/29/2014	13.5	13.5	Surficial layer of brown SILT over dark gray sandy SILT over olive gray silty medium to coarse SAND. Organic debris: worm tubes, shells, plant material. Moderate sulfur odor, no sheen. Penetration to 25 cm.	4/20/2011	3	9	Surficial, brown SILT and debris over dark gray to black SILT. Transition to silty SAND at 3 cm depth and to silty, medium to coarse cap material at 9 cm depth. Organic debris: shells, plant material, marine algae. No distinct odor and no sheen. Penetration to 28 cm.
RC/WC-09	4/29/2014	21	21	Surficial layer of brown SILT over dark gray fine sandy SILT over silty fine SAND. Fine sand layer assumed to be associated with sand cap placement although no distinct layer of coarse sand observed. Organic debris: worm tubes and plant material. Moderate sulfur odor, no sheen. Penetration to 23 cm.	4/20/2011	10	17	Surficial brown SILT and organic debris over dark gray to black, slightly sandy SILT. Between 10 and 17 cm depth sand content increases. Transition to slightly silty, medium SAND cap material at 17 cm depth. Organic debris: shells, few twigs. Slight sulfur odor at surface, no sheen. Penetration to 29 cm.
RC/WC-10	4/30/2014	3	3	Surficial layer of brown SILT over dark gray sandy SILT over medium to coarse gravel cap material at 3 cm. Organic debris: worm tubes and plant material. No odor, no sheen. Penetration to 24 cm.	4/20/2011	7	7	Brown, surficial SILT and organic debris over dark gray to black sandy SILT. Transition to slightly silty, medium to coarse cap SAND at 7 cm depth. A 4 cm cobble was found in the sample. Slight sulfur odor. A hermit crab was observed near the surface of the sample. Organic debris: shells, plant material, and clam shells. No sheen. Penetration to 26 cm.
RC/WC-11	4/29/2014	15	15	Olive gray fine sandy SILT. Transition to coarse sand cap material at 15 cm. Live clam. Organic debris: shells, plant material, worm tubes. Slight sulfur odor upon homogenization. 1 sheen spot, approximately 3 cm in diamater, at 4 cm below the surface. Penetration to 26 cm.	4/20/2011	6	6	Surficial, brown SILT and sparse organic debris over dark gray to black SILT. Transition at 6 cm depth to slightly silty, medium to coarse cap SAND. Organic debris: plant material. Slight sulfur odor, no sheen. Penetration to 23 cm.
RC/WC-12	4/29/2014	11	11	Surficial layer of brown SILT over dark gray fine sandy SILT over dark gray coarse SAND cap material at 11 cm depth. Live crabs (6) and worm tubes with plant material. Slight sulfur odor, no sheen. Penetration to 25 cm.	4/20/2011	6	6	Surficial, brown SILT and organic debris over dark gray to black slightly sandy SILT. Transition to very slightly silty medium to coarse SAND cap material at 6 cm depth. Organic debris: plant material, leaves and shells. A piece of rubber (5 cm) was also found. No odor or sheen. Penetration to 25 cm.
RC-13	4/30/2014	2	2	Brown fine sandy SILT over dark gray sandy SILT over gray sandy SILT with organic debris, including shells, barnacles, muscles, and plant material. Slight sulfur odor and 3 sheen spots on surface.	4/18/2011	2	2	Brown SILT over black SILT with organic debris, including mussel shells, barnacles and tree matter. Slight sulfur odor, no sheen.
RC-14	4/30/2014	2	2	Brown fine sandy SILT over dark gray fine sandy SILT, with 1 dead crab (~ 3 cm), plant material. Slight petroleum odor in dark gray layer and 1 sheen spot on surface.	4/18/2011	2	2	Brown, fine SILT over black SILT, with some gravel, mussel shells, barnacles and pine needles. Mild sulfur odor, no sheen.

Location	Year 5	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 4	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description
RC/WC-01	5/26/2009	3	3	1 mm brown RPD layer over black SILT to 3 cm then medium to coarse SAND, mussels, clam shells, organic debris. Hand sample collected from intertidal area.	5/7/2008	NA	NA	<1 mm RPD layer over dark gray to black SILT, intermixed brown silty SAND, cobbles, organics, mussel shells, leaf litter, plastic fragment, barnacles on rocks. Silt thickness difficult to assess due to abundance of rocks/mussels.
RC/WC-02	5/26/2009	23+	23+	Dark gray to black SILT with trace SAND to 23 cm, faint H_2S odor, clam shell, abundant organic debris, leaf litter, pine needles.	5/6/2008	7	12*	7 cm Black SILT over sandy SILT with depth, worms, platey fuel sheen on water, organic debris, twigs, pine needles, leaves. Power grab penetrated 24 cm, distinct sand cap not visible with Power grab. Piston Core shows sand cap at 12 cm.
RC/WC-03	5/26/2009	16	16	1-2 cm dark gray to black fine to medium SILT, slightly sandy SILT, sand increases with depth, at 16 cm intermixing of SAND and SILT with possible cap material, faint H2S odor at 5 cm, mussels, shells, small sheen spot on homogenized sample, organic debri	5/6/2008	6	13*	1 mm RPD layer over 6 cm black SILT with areas of fine SAND intermixed, clam. Power grab penetrated 24 cm, distinct sand cap not visible. Piston corer shows sand cap at 13 cm.
RC/WC-04	5/26/2009	21	21	Dark gray to black sandy SILT, at 21 cm intermixed clay and medium to coarse SAND, faint H2S odor, 4 cm live *macoma* clam, some organic debris, pine needles.	5/6/2008	8	12*	1 mm RPD layer over 8 cm black SILT over sandy SILT to silty SAND with depth, faint H_2S odor, worms, organic debris. Power grab penetrated 23 cm, distinct sand cap not visible. Piston corer shows sand cap at 12 cm.
RC/WC-05	5/26/2009	21+	21+	Dar gray to black SILT with some fine SAND, faint H2S odor, broken clam shells, kelp, 3 live shrimp (one containing eggs), iridesent sheen spot on sediment surface of grab, abundant leaf litter and organic debris, piece of plastic.	5/6/2008	13	13	1mm RPD layer over 13 cm black SILT over bottom layer of distinct brown SAND cap material (sand cap at 13 cm), H_2S odor, worm (2-ft long), small shrimp, platey fuel sheen on water and small spot on sample, shell debris, ribbon debris, PVC pipe fragment.
RC/WC-06	5/26/2009	20+	20+	Dark gray to black SILT with trace SAND to 20 cm, fine gray SAND near bottom of grab, faint odor below surface, 6 live crabs, kelp, bivalve, shells, pine needles. Crabs disturbed sediment surface.	5/6/2008	7	16	1 mm RPD layer over 7 cm black soft SILT over gray fine SAND over sand cap material, sand cap at 16 cm, slight H_2S odor, worm, shell.
RC/WC-07	5/26/2009	20	20	1 cm RPD layer over 20 cm of dark gray to black slightly sandy SILT with organic fragments, cap material observed at very bottom of grab, H2S odor, larval flat fish, mussel shells, shrimp, surface kelp, piece of plastic debris.	5/6/2008	8	18*	1 mm RPD layer over 8 cm dark gray-black SILT over mixed silty SAND, strong H_2S odor, organic debris, wood, shell fragments, piece of plastic. Power grab penetrated 22 cm, grab discarded before below sediment below 10 cm examined. Piston corer shows sand cap at 18 cm.
RC/WC-08	5/26/2009	18	18	1 cm RPD layer dark olive gray to green over dark gray to black SILT with fine SAND to 18 cm grades into top of cap material, kelp, worm tubes, brown clam shells, iradescent sheen on surface sediment of grab, organic debris, leaf litter.	5/6/2008	8	8	1 mm RPD layer over 8 cm black SILT over medium brown SAND cap material, moderate H_2S odor, kelp, algae, tiny shrimp, worms, shell fragments.
RC/WC-09	5/26/2009	10	10	1 cm RPD layer dark olive gray underlying black SILT with some fine SAND to 10 cm then cap material below, H2S odor, trace worm tubes, worms, organic debris, pine needles.	5/6/2008	8	13	1 mm RPD layer over 8 cm black SILT over black silty SAND to 13 cm, color change to brown medium coarse SAND, sand cap at 13 cm, worm, shell debris, trace organic debris.
RC/WC-10	5/26/2009	3	3	1 cm RPD layer dark brown over dark gray to black sandy SILT to 3 cm grade into sand cap material, shell fragments, worm tubes, some organic debris, leaf litter.	5/6/2008	1	1	1 mm RPD layer over 1 cm dark gray SILT over medium SAND cap material, worm, shell fragments.
RC/WC-11	5/26/2009	5	10	1 cm RPD layer dark olive gray over black SILT with some SAND to 5 cm then grades into black medium sand cap material at 10 cm, faint H2S odor, mussel shells, worm tubes, some organic debris.	5/6/2008	7	7	1 mm RPD layer over 7 cm black SILT with shell fragments over fine SAND cap material, H_2S odor, slight platey fuel sheen on water, mussel shells.
RC/WC-12	5/26/2009	9	9	1 cm brown sandy SILT on surface, dark gray sandy SILT grades into fine to medium SAND over 1" rock grades into clayey SILT with medium to coarse SAND, cap material at 9 cm, snail, broken clam shell, kelp, some organic debris.	5/6/2008	4	4	1 mm RPD layer over 4 cm black SILT over SAND cap material, seaweed.
RC-13	5/26/2009	10	10	1 cm light brown to brown SILT over black SILT grades into dark gray to black with depth, mussels, barnacles, abundant organic debris. Hand sample collected from intertidal area.	5/7/2008	2	2	1 mm RPD layer over <1cm dark brown SILT over dark gray to black SILT intermixed brown/gray SAND with large rocks, mussels/barnacles intermixed, mussel shells, worm, organic leafy debris, slight platey fuel sheen spot on sample.
RC-14	5/26/2009	5.5-8	7 (avg)	Dark brown SILT with SAND and cobbles on surface over dark gray to brown SILT with depth, mussels, barnacles, shells, dead crab, abundant organic debris, grass fibers. Hand sample collected from intertidal area.	5/7/2008	8	8	1 mm RPD layer over 8 cm dark brown SILT over dark gray to black SILT, mussel shells, organic debris, leaf litter.

Location	Year 3	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 2	Depth of Fine Material Over Cap (cm)	Year 1	Depth of Fine Material over Cap (cm)
RC/WC-01	5/16/2007	NA	NA	1 mm RPD layer over dark gray to black SILT, SAND, and organics. Some organic sheen. Crab shell, twigs, leaves, cigarette butts. Barnacles on rocks.	5/16/2006	NA	5/12/2005	1-2
RC/WC-02	5/16/2007	13+	13+	Dark gray to black soft SILT with lots of organic debris. Twigs and leaves. Penetration of 13 cm did not encounter sand cap.	5/12/2006	15.5-17	5/12/2005	8.5-9
RC/WC-03	5/16/2007	13	15+	1 mm RPD layer over 13 cm dark gray SILT over sandy SILT (15 cm pen). Shell fragments.	5/15/2006	9.5-12	5/12/2005	10
RC/WC-04	5/17/2007	13	17+	1 mm RPD layer over 13 cm dark gray soft SILT over sandy SILT- fine grained sand cap material.(17 cm pen). H_2S odor upon homogenizing. Worms, shells.	5/12/2006	9-17	5/12/2005	9+-13
RC/WC-05	5/16/2007	14	14-16	1 mm RPD over 14 cm dark gray SILT over bottom layer of SAND (17 cm pen). Slight H_2S odor. Mussel shell, worms, worm tubes. Plant roots.	5/15/2006	12-13	5/12/2005	10
RC/WC-06	5/17/2007	12	12	1 mm RPD layer over 12 cm dark gray SILT over sandy SILT. 4 cm sand cap on side (13 cm pen). Slight H_2S odor. Worms, crabs(2).	5/15/2006	1-10	5/12/2005	4.5
RC/WC-07	5/16/2007	12+	12+	1 mm RPD layer over 11-12 cm dark gray SILT with pockets of gray medium SAND. H_2S odor upon homogenizing. Crab, cockle. Clam shells, piece of plastic. Penetration of 12 cm did not encounter stratified sand layer.	5/16/2006	4.5- 7	5/11/2005	2-4
RC/WC-08	5/16/2007	7	7	1 mm RPD layer over 7 cm dark gray SILT over medium to fine gray SAND (13 cm pen). Slight sheen spot. Worm, worm tubes.	5/12/2006	7-8	5/11/2005	4
RC/WC-09	5/16/2007	9	9	9 cm dark gray SILT over gray fine SAND. Worms.	5/15/2008	6.5-8	5/11/2005	5.5
RC/WC-10	5/16/2007	1	1	1 mm RPD layer over 1 cm dark gray SILT over coarse SAND cap material. Worms, worm tubes.	5/16/2006	0.3-0.6	5/11/2005	5
RC/WC-11	5/16/2007	3	3	1 mm RPD layer over 2-3 cm dark gray SILT over coarse SAND cap material. Small sheen spot.	5/12/2006	1	5/11/2005	10.5
RC/WC-12	5/17/2007	3	3	1 mm RPD over 2-3 cm dark gray SILT over coarse SAND cap material. 3-in crab, worm tubes, kelp, clam.	5/16/2006	0.5-1	5/11/2005	5
RC-13	5/16/2007	NA	NA	1 mm RPD layer over dark gray to black SILT and organic debris. Some organic sheen in areas of disturbance (footprints). No sheen in sample. Leaves, twigs. Mussels on rebar and surrounding rocks.	5/16/2006	NA	5/12/2005	1
RC-14	5/16/2007	NA	NA	1 mm RPD layer over SILT, SAND, and GRAVEL mix. Mussels. Nearby garbage, leaves, twigs. Mussels present on rocks.	5/16/2006	NA	5/12/2005	1-2

Location	Year 10	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 7	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 5	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 4	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 3	Depth of Fines (cm)	Depth of Material Over Cap (cm)	Description	Year 2	Depth of Fine Material Over Cap (cm)	Year 1	Depth of Fine Material over Cap (cm)
WC-13	4/29/2014	13	13	Surficial layer of brown SILT over dark gray fine sandy SILT. Transition to dark gray fine silty SAND at 13 cm over dark gray coarse sand cap material at 14 cm. Worm tubes. Slight sulfur odor, no sheen. Penetration to 17 cm.	4/20/2011	15	18	Surficial, brown SILT over dark gray to black SILT. Transition to silty SAND at 15 cm and to silty medium cap SAND at 18 cm depth. Debris: scattered leaves, plant material. Strong sulfur odor, no sheen. Penetration to 23 cm.	5/26/2009	7	7	Dark olive gray to black SILT with trace fine SAND to 7 cm over cap material, worms, worm tubes, piece of plastic.	5/6/2008	3	3	1 mm RPD layer over 3 cm black SILT over SAND cap material, some organic debris.	5/16/2007	8	8	8 cm dark gray/black SILT over dark gray/black gravelly well graded SAND (13 cm pen). Worms. Garbage on surface.	5/15/2006	6	NA	NA
WC-14	4/29/2014	15+	15+	Surficial layer of brown SILT over dark gray fine sandy SILT. Organic debris: plant material, shells, and worms. Moderate sulfur odor, no sheen. Penetration to 15 cm.	4/20/2011	9	14	Surficial brown SILT and scattered debris over dark gray to black slightly sandy SILT. Transition to silty SAND at 9 cm depth and to SAND cap material at 14 cm depth. Organic debris: plant material, few clam and mussel shells. Light sheen on water in the sampler, no odor. Penetration to 22 cm.	5/26/2009	11	11	1 cm RPD layer dark olive gray over black SILT with some fine SAND grades to dark gray fine sandy SILT for 11-12 cm over cap material, 4" crab, worm tubes, small sheen spot overlying water of grab sample, some leaf litter.	5/7/2008	13	18	1 mm RPD layer over 13 cm black SILT over fine grained sandy SILT over brown SAND cap at 18 cm organics, rocks.	5/16/2007	13+	13+	1 mm RPD layer over 13 cm dark gray to black soft SILT. Slight H_2S odor upon disturbance. Worms and plant fibers. Penetration of 13 cm did not encounter sand cap.	5/15/2006	13 -15	NA	NA
S-15	4/28/2014	1	1	0 - 1 cm of dark gray sandy SILT over dark gray coarse SAND with silt. Organic debris: shell hash, clam and mussel shells, worms. No odor and no sheen. Penetration to 22 cm.	4/20/2011	1	2	Surficial brown SILT and organic debris over 1 cm of dark gray to black SILT that transitions to dark gray to black silty SAND over cap sand at 2 cm depth. Organic debris: plant material. No odor and no sheen. Penetration to 24 cm.	5/26/2009	2	4	1 cm RPD layer dark brown over dark gray to black SILT to 4 cm, over medium to coarse SAND to coarse cap material, shrimp, kelp on surface.	5/6/2008	4	4	1 mm RPD layer over 4 cm dark gray to black SILT over SAND cap material, platey fuel sheen on water mussels on surface.	5/16/2007	3	3	1 mm RPD layer over 3 cm dark gray SILT over coarse SAND cap material. Shell fragments.	5/15/2006	2	5/10/2005	11.5
S-17	4/28/2014	12	12	Dark gray SILT with sand to 12 cm. Transition to dark gray coarse SAND cap with silt at 12 cm. Live crab. Organic debris: shell hash and worm tubes. Slight sulfur odor, no sheen. Penetration to 22 cm.	4/20/2011	9	10	Surficial brown SILT and debris over dark gray to black sandy SILT to 9 cm depth. Transition to silty SAND at 9 cm and to cap SAND at 10 cm depth. Organic debris: mussel shell fragments and scattered plant material. Moderate sulfur odor, no sheen. Penetration to 25 cm.	5/26/2009	14	14	Dark olive gray to black SILT to 14 cm, H2S odor, shell fragments, some organic debris.	5/6/2008	4	4	1 mm RPD layer over 4 cm black SILT over SAND cap material, slight H_2S odor, worms, slight platey fuel sheen on water.	5/16/2007	2	2	1 mm RPD layer over 2 cm dark gray SILT over coarse SAND cap material.	5/12/2006	0.5	5/11/2005	6
S-19	4/28/2014	9	9	Surficial layer of brown SILT over dark gray sandy SILT over silty coarse SAND cap material. Worm tubes. Very slight sulfur odor, no sheen. Penetration to 27 cm.	4/20/2011	3	3	Surficial brown SILT over 3 cm of dark gray to black sandy SILT over medium to coarse cap SAND. Few scattered shells and plant material. No odor and no sheen. Penetration to 27 cm.	5/26/2009	8	8	1 cm RPD layer dark olive gray over black SILT with some fine SAND to 8 cm grades into coarse sand cap material, faint H2S odor when homogenized, worm tubes, organic debris.	5/6/2008	3	3	1 mm RPD layer over 3 cm dark gray to black SILT over SAND cap material, slight H_2S odor, worm, slight gray platey fuel sheen on water, bottle cap, organic debris.	5/16/2007	4	4	4 cm dark gray SILT over coarse SAND cap material. Live crab.	5/15/2006	2	5/10/2005	8
S-24	4/28/2014	1	1	0-1 cm dark gray SILT over dark gray silty coarse SAND cap material. Organic debris: shell hash, plant material. Slight sulphur odor, no sheen. Penetration to 18 cm.	4/20/2011	2	2	Surficial brown SILT over 2 cm of dark gray to black sandy SILT and sparse debris over medium to coarse SAND cap material. Organic debris: clam shells, algae and plant material (leaves). No odor and no sheen. Penetration to 26 cm.	5/26/2009	5-8	7 (avg)	Dark gray, olive green to black surface SILT with fine SAND to 5-8 cm over cap material, faint H2S, shell fragments, worm tubes, organic debris.	5/6/2008	2	2	1 mm RPD layer over 2 cm dark gray SILT over SAND cap material, organic debris.	5/16/2007	1	1	1 mm RPD layer over 1 cm dark gray SILT over coarse SAND cap material. Ghost shrimp, worm tubes.	5/12/2006	0.5	5/11/2005	6

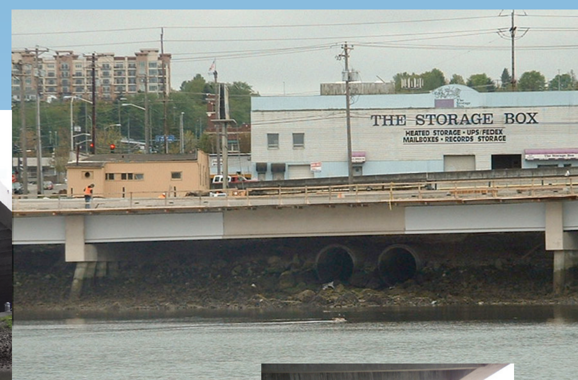
*Piston Core

APPENDIX E

SEDIMENT PROFILE IMAGING REPORT (PHOTOS ON CD)

August 2014

Thea Foss OMMP Year 10 Monitoring:
Sediment Profile Imaging Survey



Prepared for:

Tetra Tech EC, Inc.
19803 North Creek Parkway
Bothell, WA 98011

Contract Order Number 1105099

Prepared by:

Germano & Associates, Inc.
12100 SE 46th Place
Bellevue, WA 98006

Sediment Profile Imaging Report

THEA FOSS OMMP YEAR 10 MONITORING: SEDIMENT PROFILE IMAGING SURVEY

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August, 2014

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1.0 INTRODUCTION

As part of the post-construction monitoring required as part of the OMMP Year 10 Monitoring event at the Head of the Thea Foss Waterway, Germano & Associates, Inc. (G&A) performed a Sediment Profile Imaging (SPI) survey at 18 stations on April 28, 2014. The purpose of the SPI survey was to document recolonization of benthic infauna on the constructed cap as well as compare results from the 2014 SPI survey with three previous surveys performed in 2006, 2008, and 2011.

2.0
MATERIALS AND METHODS

On April 28, 2014, scientists from G&A collected sediment profile images at a total of 18 stations under the direction of Tetra Tech EC, Inc. aboard a Tetra Tech EC sampling vessel. An Ocean Imaging Systems Model 3731 sediment profile camera was used for this survey; a total of 54 sediment profile images were collected at 18 stations (Figure 1) during the course of the field operations.

SPI was developed almost two decades ago as a rapid reconnaissance tool for characterizing physical, chemical, and biological seafloor processes and has been used in numerous seafloor surveys throughout the United States, Pacific Rim, and Europe (Rhoads and Germano 1982, 1986, 1990; Revelas et al. 1987; Valente et al. 1992; Germano et al. 2011). The sediment profile camera works like an inverted periscope. A Nikon D7000 16.2-megapixel SLR camera with an 8-gigabyte SD card is mounted horizontally inside a watertight housing on top of a wedge-shaped prism. The prism has a Plexiglas® faceplate at the front with a mirror placed at a 45° angle at the back. The camera lens looks down at the mirror, which is reflecting the image from the faceplate. The prism has an internal strobe mounted inside at the back of the wedge to provide illumination for the image; this chamber is filled with distilled water, so the camera always has an optically clear path. This wedge assembly is mounted on a moveable carriage within a stainless steel frame. The frame is lowered to the seafloor on a winch wire, and the tension on the wire keeps the prism in its "up" position. When the frame comes to rest on the seafloor, the winch wire goes slack and the camera prism descends into the sediment at a slow, controlled rate by the dampening action of a hydraulic piston so as not to disturb the sediment-water interface. On the way down, it trips a trigger that activates a time-delay circuit of variable length (operator-selected) to allow the camera to penetrate the seafloor before any image is taken. The knife-sharp edge of the prism transects the sediment, and the prism penetrates the bottom. The strobe is discharged after an appropriate time delay to obtain a cross-sectional image of the upper 20 cm of the sediment column (Figure 2). The resulting images give the viewer the same perspective as looking through the side of an aquarium half-filled with sediment. After the first image is obtained at the first location, the camera is then raised up about 2 to 3 meters off the bottom to allow the strobe to recharge; a wiper blade mounted on the frame removes any mud adhering to the faceplate. The strobe recharges within 5 seconds, and the camera is ready to be lowered again for a replicate image. Surveys can be accomplished rapidly by "pogo-sticking" the camera across an area of seafloor while recording positional fixes on the surface vessel.

Two types of adjustments to the SPI system are typically made in the field: physical adjustments to the chassis stop collars or adding/subtracting lead weights to the chassis to control penetration in harder or softer sediments, and electronic software adjustments to the Nikon D7000 to control camera settings. Camera settings (f-stop, shutter speed, ISO equivalents, digital file format, color balance, etc.) are selectable through a water-tight USB port on the camera housing and Nikon Capture® software. At the beginning of the survey, the time on the sediment profile camera's internal data logger was synchronized with the internal clock on the computerized navigation system to local time. Details of the camera settings for each digital image are available in the associated parameters file embedded in the electronic image file. Three replicate images were taken at each station; each SPI replicate is identified by the time recorded on the digital file and on disk along with vessel position. Multiple images were taken at each location, and each image was assigned a unique time stamp in the digital file attributes by the data logger and cross-checked with the time stamp in the navigational system's computer data file. The field crew kept redundant written sample logs. Images were downloaded periodically (sometimes after each station) to verify successful sample acquisition or to assess what type of sediment/depositional layer was present at a particular station. Digital image files were re-named with the appropriate station name immediately after downloading on deck as a further quality assurance step.

Test exposures of the Kodak® Color Separation Guide (Publication No. Q-13) were made on deck at the beginning of the survey to verify that all internal electronic systems were working to design specifications and to provide a color standard against which final images could be checked for proper color balance. A spare camera and charged battery were carried in the field at all times to insure uninterrupted sample acquisition. After deployment of the camera at each station, the frame counter was checked to make sure that the requisite number of replicates had been taken. In addition, a prism penetration depth indicator on the camera frame was checked to verify that the optical prism had actually penetrated the bottom to a sufficient depth. If images were missed (frame counter indicator or verification from digital download) or the penetration depth was insufficient (penetration indicator), chassis stops were adjusted and/or weights were added or removed, and additional replicate images were taken. Changes in prism weight amounts, the presence or absence of mud doors, and chassis stop positions were recorded for each replicate image. Images were inspected in the field to determine whether any stations needed re-sampling with different stop collar or weight settings.

Following completion of field operations, the digital images were analyzed from this survey using Sigma Scan® software (Aspire Software International). Calibration information was determined by measuring 1-cm gradations from the Kodak® Color Separation Guide. This calibration information was applied to all SPI images analyzed. Linear and area measurements were recorded as number of pixels and converted to scientific units using the calibration information.

Measured parameters were recorded on a Microsoft® Excel© spreadsheet. G&A's senior scientist (Dr. J. Germano) subsequently checked all these data as an independent quality assurance/quality control review of the measurements before final interpretation was performed.

2.1 MEASURING, INTERPRETING, AND MAPPING SPI PARAMETERS

2.1.1 Sediment Type

The sediment grain-size major mode and range were visually estimated from the color images by overlaying a grain-size comparator that was at the same scale. This comparator was prepared by photographing a series of Udden-Wentworth size classes (equal to or less than coarse silt up to granule and larger sizes) with the SPI camera. Seven grain-size classes were on this comparator: >4 ϕ (silt-clay), 4 - 3 ϕ (very fine sand), 3-2 ϕ (fine sand), 2 - 1 ϕ (medium sand), 1-0 ϕ (coarse sand), 0 - (-)1 ϕ (very coarse sand), < -1 ϕ (granule and larger). The lower limit of optical resolution of the photographic system was about 62 microns, allowing recognition of grain sizes equal to or greater than coarse silt ($\geq$ 4 ϕ). The accuracy of this method has been documented by comparing SPI estimates with grain-size statistics determined from laboratory sieve analyses (Germano et al. 2011).

The comparison of the SPI images with Udden-Wentworth sediment standards photographed through the SPI optical system was also used to map near-surface stratigraphy such as sand-over-mud and mud-over-sand. When mapped on a local scale, this stratigraphy can provide information on relative transport magnitude and frequency.

2.1.2 Prism Penetration Depth

The SPI prism penetration depth was measured from the bottom of the image to the sediment-water interface. The area of the entire cross-sectional sedimentary portion of the image was digitized, and this number was divided by the calibrated linear width of the image to determine the average penetration depth. Linear maximum and minimum depths of penetration were also measured. All three measurements (maximum, minimum, and average penetration depths) were recorded in the data file.

Prism penetration is a noteworthy parameter; if the number of weights used in the camera is held constant throughout a survey, the camera functions as a static-load penetrometer. Comparative penetration values from sites of similar grain size give an indication of the relative water content of the sediment. Highly bioturbated sediments and rapidly accumulating sediments tend to have the highest water contents and greatest prism penetration depths.

The depth of penetration also reflects the bearing capacity and shear strength of the sediments. Overconsolidated or relic sediments and shell-bearing sands resist camera penetration. Highly bioturbated, sulfitic, or methanogenic muds are the least consolidated, and deep penetration is typical. Seasonal changes in camera prism penetration have been observed at the same station in other studies and are related to the control of sediment geotechnical properties by bioturbation (Rhoads and Boyer 1982). The effect of water temperature on bioturbation rates appears to be important in controlling both biogenic surface relief and prism penetration depth (Rhoads and Germano 1982).

2.1.3 Small-Scale Surface Boundary Roughness

Surface boundary roughness was determined by measuring the vertical distance between the highest and lowest points of the sediment-water interface. The surface boundary roughness (sediment surface relief) measured over the width of sediment profile images typically ranges from 0.02 to 3.8 cm, and may be related to either physical structures (ripples, rip-up structures, mud clasts) or biogenic features (burrow openings, fecal mounds, foraging depressions). Biogenic roughness typically changes seasonally and is related to the interaction of bottom turbulence and bioturbational activities.

The camera must be level in order to take accurate boundary roughness measurements. In sandy sediments, boundary roughness can be a measure of sand wave height. On silt-clay bottoms, boundary roughness values often reflect biogenic features such as fecal mounds or surface burrows. The size and scale of boundary roughness values can have dramatic effects on both sediment erodibility and localized oxygen penetration into the bottom (Huettel et al., 1996).

2.1.4 Thickness of Depositional Layers

Because of the camera's unique design, SPI can be used to detect the thickness of depositional and dredged material layers. SPI is effective in measuring layers ranging in thickness from 1 mm to 20 cm (the height of the SPI optical window). During image analysis, the thickness of the newly deposited sedimentary layers can be determined by measuring the distance between the pre- and post-disposal sediment-water interface. Recently deposited material is usually evident because of its unique optical reflectance and/or color relative to the underlying material representing the pre-disposal surface. Also, in most cases, the point of contact between the two layers is clearly visible as a textural change in sediment composition, facilitating measurement of the thickness of the newly deposited layer.

2.1.5 Mud Clasts

When fine-grained, cohesive sediments are disturbed, either by physical bottom scour or faunal activity, e.g., decapod foraging, intact clumps of sediment are often scattered about the seafloor. These mud clasts can be seen at the sediment-water interface in SPI images. During analysis, the number of clasts was counted, the diameter of a typical clast was measured, and their oxidation state was assessed. The abundance, distribution, oxidation state, and angularity of mud clasts can be used to make inferences about the recent pattern of seafloor disturbance in an area.

Depending on their place of origin and the depth of disturbance of the sediment column, mud clasts can be reduced or oxidized. In SPI images, the oxidation state is apparent from the reflectance; see Section 2.1.6. Also, once at the sediment-water interface, these mud clasts are subject to bottom-water oxygen concentrations and currents. Evidence from laboratory microcosm observations of reduced sediments placed within an aerobic environment indicates that oxidation of reduced surface layers by diffusion alone is quite rapid, occurring within 6 to 12 hours (Germano 1983). Consequently, the detection of reduced mud clasts in an obviously aerobic setting suggests a recent origin. The size and shape of the mud clasts are also revealing; some clasts seen in the profile images are artifacts caused by the camera deployment (mud clots falling off the back of the prism or the wiper blade). Naturally-occurring mud clasts may be moved and broken by bottom currents and animals (macro- or meiofauna; Germano 1983). Over time, these naturally-occurring, large angular clasts become small and rounded.

2.1.6 Apparent Redox Potential Discontinuity Depth

Aerobic near-surface marine sediments typically have higher reflectance relative to underlying hypoxic or anoxic sediments. Surface sands washed free of mud also have higher optical reflectance than underlying muddy sands. These differences in optical reflectance are readily apparent in SPI images; the oxidized surface sediment contains particles coated with ferric hydroxide (an olive or tan color when associated with particles), while reduced and muddy sediments below this oxygenated layer are darker, generally gray to black. The boundary between the colored ferric hydroxide surface sediment and underlying gray to black sediment is called the apparent redox potential discontinuity (RPD).

The depth of the apparent RPD in the sediment column is an important time-integrator of dissolved oxygen conditions within sediment porewaters. In the absence of bioturbating organisms, this high reflectance layer (in muds) will typically reach a thickness of 2 mm below the sediment-water interface (Rhoads 1974). This depth is related to the supply rate of molecular oxygen by diffusion into the bottom and the consumption of that oxygen by the sediment and associated microflora. In sediments that have very high sediment oxygen demand (SOD), the sediment may lack a high reflectance layer even when the overlying water column is aerobic.

In the presence of bioturbating macrofauna, the thickness of the high reflectance layer may be several centimeters. The relationship between the thickness of this high reflectance layer and the presence or absence of free molecular oxygen in the associated porewaters must be considered with caution. The actual RPD is the boundary or horizon that separates the positive Eh region of the sediment column from the underlying negative Eh region. The exact location of this Eh = 0 boundary can be determined accurately only with microelectrodes; hence, the relationship between the change in optical reflectance, as imaged with the SPI camera, and the actual RPD can be determined only by making the appropriate *in situ* Eh measurements. For this reason, the optical reflectance boundary, as imaged, was described in this study as the "apparent" RPD and it was mapped as a mean value. In general, the depth of the actual Eh = 0 horizon will be either equal to or slightly shallower than the depth of the optical reflectance boundary. This is because bioturbating organisms can mix ferric hydroxide-coated particles downward into the bottom below the Eh = 0 horizon. As a result, the apparent mean RPD depth can be used as an estimate of the depth of porewater exchange, usually through porewater irrigation (bioturbation). Biogenic particle mixing depths can be estimated by measuring the maximum and minimum depths of imaged feeding voids in the sediment column. This parameter represents the particle mixing depths of head-down feeders, mainly polychaetes.

The rate of depression of the apparent RPD within the sediment is relatively slow in organic-rich muds, on the order of 200 to 300 micrometers per day; therefore this parameter has a long time constant (Germano and Rhoads 1984). The rebound in the apparent RPD is also slow (Germano 1983). Measurable changes in the apparent RPD depth using the SPI optical technique can be detected over periods of 1 or 2 months. This parameter is used effectively to document changes (or gradients) that develop over a seasonal or yearly cycle related to water temperature effects on bioturbation rates, seasonal hypoxia, SOD, and infaunal recruitment. Time-series RPD measurements following a disturbance can be a critical diagnostic element in monitoring the degree of recolonization in an area by the ambient benthos (Rhoads and Germano 1986).

The apparent mean RPD depth also can be affected by local erosion. The peaks of disposal mounds commonly are scoured by divergent flow over the mound. This scouring can wash away fines and shell or gravel lag deposits, and can result in very thin surface oxidized layer. During storm periods, erosion may completely remove any evidence of the apparent RPD (Fredette et al. 1988).

Another important characteristic of the apparent RPD is the contrast in reflectance at this boundary. This contrast is related to the interactions among the degree of organic loading, the bioturbation activity in the sediment, and the concentrations of bottom-water dissolved oxygen in an area. High inputs of labile organic material increase SOD and, subsequently, sulfate reduction rates and the associated abundance of sulfide end products. This results in more highly reduced, lower-reflectance sediments at depth and higher RPD contrasts. In a region of generally low RPD contrasts, images with high RPD contrasts indicate localized sites of relatively large inputs of organic-rich material such as phytoplankton, other naturally-occurring organic detritus, dredged material, or sewage sludge.

Because the determination of the apparent RPD requires discrimination of optical contrast between oxidized and reduced particles, it is difficult, if not impossible, to determine the depth of the apparent RPD in well-sorted sands of any size that have little to no silt or organic matter in them (Painter et al, 2007). When using SPI technology on sand bottoms, little information other than grain-size, prism penetration depth, and boundary roughness values can be measured; while oxygen has no doubt penetrated the sand beneath the sediment-water interface just due to physical forcing factors acting on surface roughness elements (Ziebis et al., 1996; Huettel et al., 1998), estimates of the mean apparent RPD depths in these types of sediments are indeterminate with conventional white light photography.

2.1.7 Organic Loading, Sedimentary Methane, and Thiophilic Bacterial Colonies

If organic loading is extremely high, porewater sulfate is depleted and methanogenesis occurs. The process of methanogenesis is indicated by the appearance of methane bubbles in the sediment column, and the number and total area covered by all methane pockets is measured. These gas-filled voids are readily discernable in SPI images because of their irregular, generally circular aspect and glassy texture (due to the reflection of the strobe off the gas bubble).

A primary diagnostic feature indicating an area is suffering from hypoxic conditions due to organic enrichment is the presence of the *Beggiatoa* or *Beggiatoa*-like colonies (note: while we cannot state with certainty that any bacterial colonies seen in profile or plan view images are indeed the genus *Beggiatoa* without microscopic identification, we can state with certainty that these are definitely in the same family of sulfur-oxidizing bacteria that only appear in hypoxic or anoxic conditions). These colonies have diagnostic morphology that has been documented in numerous other sediment profile imaging surveys (Karakassis et al., 2002; Nilsson & Rosenberg, 1997; Rosenberg et al., 2001). The presence of sulfur-oxidizing bacterial colonies appear when boundary-layer dissolved oxygen concentrations drop into the "hypoxic" range between 0-1 ml/L (Rosenberg and Diaz, 1993).

2.1.8 Infaunal Successional Stage

The mapping of infaunal successional stages is readily accomplished with SPI technology. These stages are recognized in SPI images by the presence of dense assemblages of near-surface polychaetes and/or the presence of subsurface feeding voids; both may be present in the same image. Mapping of successional stages is based on the theory that organism-sediment interactions in fine-grained sediments follow a predictable sequence after a major seafloor perturbation. This theory states that primary succession results in "the predictable appearance of macrobenthic invertebrates belonging to specific functional types following a benthic disturbance. These invertebrates interact with sediment in specific ways. Because functional types are the biological units of interest..., our definition does not demand a sequential appearance of particular invertebrate species or genera" (Rhoads and Boyer 1982). This theory is presented in Pearson and Rosenberg (1978) and further developed in Rhoads and Germano (1982) and Rhoads and Boyer (1982).

This continuum of change in animal communities after a disturbance (primary succession) has been divided subjectively into four stages: Stage 0, indicative of a sediment column that is largely devoid of macrofauna, occurs immediately following a physical disturbance or in close proximity to an organic enrichment source; Stage 1 is the initial community of tiny, densely populated polychaete assemblages; Stage 2 is the start of the transition to head-down deposit feeders; and Stage 3 is the mature, equilibrium community of deep-dwelling, head-down deposit feeders (Figure 3).

After an area of bottom is disturbed by natural or anthropogenic events, the first invertebrate assemblage (Stage 1) appears within days after the disturbance. Stage 1 consists of assemblages of tiny tube-dwelling marine polychaetes that reach population densities of 10^4 to 10^6 individuals per m^2. These animals feed at or near the sediment-water interface and physically stabilize or bind the sediment surface by producing a mucous "glue" that they use to build their tubes. Sometimes deposited dredged material layers contain Stage 1 tubes still attached to mud clasts from their location of origin; these transported individuals are considered as part of the *in situ* fauna in our assignment of successional stages.

If there are no repeated disturbances to the newly colonized area, then these initial tube-dwelling suspension or surface-deposit feeding taxa are followed by burrowing, head-down deposit-feeders that rework the sediment deeper and deeper over time and mix oxygen from the overlying water into the sediment. The animals in these later-appearing communities (Stage 2 or 3) are larger, have lower overall population densities (10 to 100 individuals per m^2), and can rework the sediments to depths of 3 to 20 cm or more. These animals "loosen" the sedimentary fabric, increase the water content in the sediment, thereby lowering the sediment shear strength, and actively recycle nutrients because of the high exchange rate with the overlying waters resulting from their burrowing and feeding activities.

In dynamic estuarine and coastal environments, it is simplistic to assume that benthic communities always progress completely and sequentially through all four stages in accordance with the idealized conceptual model depicted in Figure 3. Various combinations of these basic successional stages are possible. For example, secondary succession can occur (Horn, 1974) in response to additional labile carbon input to surface sediments, with surface-dwelling Stage 1 or 2 organisms co-existing at the same time and place with Stage 3, resulting in the assignment of a "Stage 1 on 3" or "Stage 2 on 3" designation.

While the successional dynamics of invertebrate communities in fine-grained sediments have been well-documented, the successional dynamics of invertebrate communities in sand and coarser sediments are not well-known. Subsequently, the insights gained from sediment profile imaging technology regarding biological community structure and dynamics in sandy and coarse-grained bottoms are fairly limited.

2.1.9 Organism-Sediment Index

The Organism-Sediment Index (OSI) is a summary mapping statistic that is calculated on the basis of four independently measured SPI parameters: apparent mean RPD depth, presence of methane gas, low/no dissolved oxygen at the sediment-water interface, and infaunal successional stage. Table 1 shows how these parameters are summed to derive the OSI.

The highest possible OSI is +11, which reflects a mature benthic community in relatively undisturbed conditions (generally a good yardstick for high benthic habitat quality). These conditions are characterized by deeply oxidized sediment with a low inventory of anaerobic metabolites and low SOD, and by the presence of a climax (Stage III) benthic community. The lowest possible OSI is -10, which indicates that the sediment has a high inventory of anaerobic metabolites, has a high oxygen demand, and is azoic. While past mapping experience has shown that OSI values of 6 or less indicate that the benthic habitat has experienced physical disturbance, organic enrichment, or excessive bioavailable contamination in the recent past, there are a variety of reasons why use of this index is no longer encouraged because of the potential for misinterpretation (Germano et al. 2011). However, because this parameter is part of the regulatory requirements for monitoring and has been presented in the past surveys, we will include these values as part of the 2014 survey results.

2.1.10 Benthic Habitat Classification

A habitat classification strategy for the profile images from the Thea Foss Waterway was developed in 2006 after the initial survey to identify the principal benthic habitats encountered. This strategy focused on sediment characteristics that reflected the kinetic regime of the waterway and likely correlate with the diversity and biomass of benthic infauna.

The original classification was modified slightly in 2008 due to greater homogeneity in habitat types. Three habitat classes and four habitat subclasses were recognized in the 2008 survey (Table 2). The three classes were hard bottom, sandy silt bottoms, and silty

Table 1. Calculation of the SPI Organism-Sediment Index

PARAMETER	INDEX VALUE
A. Mean RPD Depth (choose one)	
0.00 cm	0
> 0-0.75 cm	1
0.76-1.50 cm	2
1.51-2.25 cm	3
2.26-3.00 cm	4
3.01-3.75 cm	5
> 3.75 cm	6
B. Successional Stage (choose one)	
Azoic (Stage 0)	-4
Stage 1	1
Stage 1 → 2	2
Stage 2	3
Stage 2 → 3	4
Stage 3	5
Stage 1 on 3	5
Stage 2 on 3	5
C. Chemical Parameters (choose one or both if appropriate)	
Methane Present	-2
No/Low Dissolved Oxygen[a]	-4
Organism-sediment Index = Total of above subset indices (A+B+C)	
Range: -10 to +11	

[a] This is not based on a Winkler or polarigraphic electrode measurement, but on the imaged evidence of reduced, low reflectance (i.e., high-oxygen-demand) sediment at the sediment-water interface.

Table 2. Classification Scheme for Benthic Habitats in Thea Foss Waterway

Class and Subclass	Description
Hard Bottom	Rocks, cobble, or mussel beds that prevent adequate camera prism penetration
Sandy Silt Bottom	Light gray to black silt/clay with a high percentage of very fine sand present
With Infauna	Sandy silt with obvious tubicolous or burrowing infauna (polychaete or bivalve)
Organic-rich	Sandy, black silt with high amount of organics; may have *Beggiatoa* present
Silty Sand Bottom	Very fine sandy bottom with high percentage of silt present
Over coarse sand/gravel	Very silty, very fine sand depositional layer over tan coarse sandy gravel; fine-grained layer is less than 10 cm thick
With Infauna	Silty very fine sand with obvious tubicolous or burrowing infauna (polychaete or bivalve)

sand bottoms. The subclasses for this revised classification scheme were not designed to be mutually exclusive; some stations could fit into more than one subclass (evidence of infauna was found at all stations, so those stations classified as either “organic rich” or “over coarse sand/gravel” could also have been classified as “with infauna”).

2.2 USING SPI DATA TO ASSESS BENTHIC QUALITY & HABITAT CONDITIONS

While various measurements of water quality such as dissolved oxygen, contaminants, or nutrients are often used to assess regional ecological quality, interpretation is difficult because of the transient nature of water-column phenomena. Measurement of a particular value of any water-column variable represents an instantaneous “snapshot” that can change within minutes after the measurement is taken. By the time an adverse signal in the water column such as a low dissolved oxygen concentration is persistent, the system may have degraded to the point where resource managers can do little but map the spatial extent of the phenomenon while gaining a minimal understanding of factors contributing to the overall degradation.

The seafloor, on the other hand, is a long-term time integrator of sediment and overlying water quality; values for any variable measured are the result of physical, chemical, and biological interactions on time scales much longer than those present in a rapidly moving fluid. The seafloor is thus an excellent indicator of environmental quality, both in terms of historical impacts and of future trends for any particular variable.

Physical measurements made with the SPI system from profile images provide background information about gradients in physical disturbance (caused by dredging, disposal, oil platform cuttings and drilling muds discharge, trawling, or storm resuspension and transport) in the form of maps of sediment grain size, boundary roughness, sediment textural fabrics, and structures. The concentration of organic matter and the SOD can be inferred from the optical reflectance of the sediment column and the apparent RPD depth. Organic matter is an important indicator of the relative value of the sediment as a carbon source for both bacteria and infaunal deposit feeders. SOD is an important measure of ecological quality; oxygen can be depleted quickly in sediment by the accumulation of organic matter and by bacterial respiration, both of which place an oxygen demand on the porewater and compete with animals for a potentially limited oxygen resource (Kennish 1986).

The apparent RPD depth is useful in assessing the quality of a habitat for epifauna and infauna from both physical and biological points of view. The apparent RPD depth in profile images has been shown to be directly correlated to the quality of the benthic habitat in polyhaline and mesohaline estuarine zones (Rhoads and Germano 1986; Revelas et al. 1987; Valente et al. 1992). Controlling for differences in sediment type and physical disturbance factors, apparent RPD depths < 1 cm can indicate chronic benthic environmental stress or recent catastrophic disturbance.

The distribution of successional stages in the context of the mapped disturbance gradients is one of the most sensitive indicators of the ecological quality of the seafloor (Rhoads and Germano 1986). The presence of Stage 3 equilibrium taxa (mapped from subsurface feeding voids as observed in profile images) can be a good indication of high benthic habitat stability and relative quality. A Stage 3 assemblage indicates that the sediment surrounding these organisms has not been disturbed severely in the recent past and that the inventory of bioavailable contaminants is relatively small. These inferences are based on past work, primarily in temperate latitudes, showing that Stage 3 species are relatively intolerant to sediment disturbance, organic enrichment, and sediment contamination. Stage 3 species expend metabolic energy on sediment bioturbation (both particle advection and porewater irrigation) to control sediment properties, including porewater profiles of sulfate, nitrate, and RPD depth in the sedimentary matrix near their burrows or tubes (Aller and Stupakoff 1996; Rice and Rhoads 1989). This bioturbation results in an enhanced rate of decomposition of polymerized organic matter by stimulating microbial decomposition (“microbial gardening”). Stage 3 benthic assemblages are very stable and are also called climax or equilibrium seres.

The metabolic energy expended in bioturbation is rewarded by creating a sedimentary environment where refractory organic matter is converted to usable food. Stage 3 bioturbation has been likened to processes such as stirring and aeration used in tertiary sewage treatment plants to accelerate organic decomposition. These processes can be interpreted as a form of human bioturbation. Physical disturbance, contaminant loading, and/or over-enrichment result in habitat destruction and in local extinction of the climax seres. Loss of Stage 3 species results in the loss of sediment stirring and aeration and may be followed by a buildup of organic matter (sediment eutrophication). Because Stage 3 species tend to have relatively conservative rates of recruitment, intrinsic population increase, and ontogenetic growth, they may not reappear for several years once they are excluded from an area.

The presence of Stage 1 seres (in the absence of Stage 3 seres) can indicate that the bottom is an advanced state of organic enrichment, has received high contaminant loading, or experienced a substantial physical disturbance. Unlike Stage 3 communities, Stage 1 seres have a relatively high tolerance for organic enrichment and contaminants. These opportunistic species have high rates of recruitment, high ontogenetic growth rates, and live and feed near the sediment-water interface, typically in high densities. Stage 1 seres often co-occur with Stage 3 seres in marginally enriched areas. In this case, Stage 1 seres feed on labile organic detritus settling onto the sediment surface, while the subsurface Stage 3 seres tend to specialize on the more refractory buried organic reservoir of detritus.

Stage 1 and 3 seres have dramatically different effects on the geotechnical properties of the sediment (Rhoads and Boyer 1982). With their high population densities and their feeding efforts concentrated at or near the sediment-water interface, Stage 1 communities tend to bind fine-grained sediments physically, making them less susceptible to resuspension and transport. Just as a thick cover of grass will prevent erosion on a terrestrial hillside, so too will these dense assemblages of tiny polychaetes serve to stabilize the sediment surface. Conversely, Stage 3 taxa increase the water content of the sediment and lower its shear strength through their deep burrowing and pumping activities, rendering the bottom more susceptible to erosion and resuspension. In shallow areas of fine-grained sediments that are susceptible to storm-induced or wave orbital energy, it is quite possible for Stage 3 taxa to be carried along in the water column in suspension with fluid muds. When redeposition occurs, these Stage 3 taxa can become quickly re-established in an otherwise physically disturbed surface sedimentary fabric.

SPI has been shown to be a powerful reconnaissance tool that can efficiently map gradients in sediment type, biological communities, or disturbances from physical forces or organic enrichment. The conclusions reached at the end of this report are about dynamic processes that have been deduced from imaged structures; as such, they should be considered hypotheses available for further testing/confirmation. By employing Occam's Razor, we feel reasonably assured that the most parsimonious explanation is usually the one borne out by subsequent data confirmation.

2.3 STATISTICAL METHODS TO COMPARE 2014 RESULTS WITH PREVIOUS SURVEYS

The objective of the SPI surveys in the Thea Foss Waterway was to assess the habitat conditions and benthic recolonization status in the waterway after remediation. Temporal trends across the site were evaluated for each of the three variables of interest (i.e., aRPD, successional stage rank, and OSI) using the regional Kendall test for trend (Helsel and Frans 2006). The results for the site-wide ("regional") trend and the slope and intercept values for the non-parametric trend lines were accessed in R (R Core Team, 2014) using the function *kendallSeasonalTrendTest{EnvStats}* (Millard 2013).

The regional Kendall test for trend (Helsel and Frans 2006) was used to evaluate site-wide trend. In the regional Kendall trend test the data from each station was evaluated separately to determine whether the data increased or decreased over time for that station, then the total number of increases and decreases was summed over all stations to determine whether there was a statistically significant trend overall. The null hypothesis for the trend test is "no trend in all stations." The regional Kendall test for trend uses a Z-statistic (with continuity correction) to determine whether the total number of increases or decreases over time were significantly different from zero. If the Z-test for trend was significant ($\alpha = 0.05$), we conclude that there was a significantly increasing or decreasing trend site-wide and the direction of the trend is indicated by the sign of the Tau value.

The site-wide trend is summarized by Kendall's tau, and the seasonal trend lines shown in the figures have the slope equal to the median of all two-point slopes computed within the season (Millard 2013 after Hirsch et al.'s modification to the Theil-Sen slope), and the intercept derived using the Theil-Sen slope and intersecting the median of the data (Millard 2013 after Hollander and Wolfe 1973 and Conover 1980).

Eighteen distinct stations were surveyed in 2008, 2011, and 2014, and 15 of these stations were also surveyed in 2006. At each of the stations there are results for three replicate drops of the SPI camera. The three replicate observations were combined to get one value per station per year: the average of replicates was used for the station RPD, the maximum among replicates was used as the successional stage rank for the station (Table 3), and the median was used for the station OSI.

Table 3. Successional Stage Rank Values used in SPI Analyses.

Highest Successional Stage	Thea Foss (2006 & 2008)	Thea Foss (2011 & 2014)
Stage 0	0	0
Stage 0 to 1	1	1
1 retrograde	1.5	1.5
Stage 1	2	2
Stage 1 -> 2	3	3
2 retrograde	3.5	3.5
Stage 2	4	4
Stage 2 -> 3	n/a	5
Stage 1 on 3	5	6
Stage 2 on 3	5	6
Stage 3	5	6
ind	ind	ind

3.0 RESULTS

A complete set of all the summary data measured from each image is presented in Appendix A; a DVD with digital files of the sediment profile images in Joint Photographic Experts Group high resolution format (*.jpg) as well as station pop-up maps have been provided under separate cover to the client.

Parameters such as boundary roughness and mud clast data (number, size) provide supplemental information pertaining to the physical regime and bottom sediment transport activity at a site. Even though mud clasts are definitive characteristics whose presence can indicate physical disturbance of some form, the mud clasts noted in the images from this survey were artifacts due to sampling (mud clumps clinging to the frame base) and not indicative of physical disturbance or sediment transport activities. Therefore, mud clast data were not used as individual parameters for interpretation.

3.1 GRAIN SIZE

The sediments throughout the entire area surveyed were either silt-clay or poorly-sorted, silty very fine to fine sands (Figure 4); only one station (Station S24) had coarser sand particles evident at the surface from the recent construction activities near the outfall on the west side of the waterway under the Highway 509 bridge (Figure 5). This was a noticeable distinction from the 2011 survey when there were no distinct surface layers of coarse sand/gravel seen in any of replicate images in the area where the City of Tacoma had historically placed additional cap material. There was only 1 station (S19) where some evidence of the historical capping layer could still be detected (Figure 6). Most of the stations showed the continued accumulation of finer sediments that reach the waterway either through the outfalls or from non-point source runoff.

3.2 SURFACE BOUNDARY ROUGHNESS

Station average surface boundary roughness values ranged from 0.78 to 2.95 cm (Figure 7), with the largest values (above 2 cm) found at Station S15 and caused from biogenic structures in the sediment (Figure 8). The overall station-averaged surface boundary roughness value for the surveyed area was 1.41 cm.

3.3 PRISM PENETRATION DEPTH

Because the camera stop collar and weight settings were changed at five of the eighteen stations because of variation in bottom sediment type (see Appendix A), the range of average station prism penetration depths displayed (Figure 9) was due to differences in relative sediment shear strength (from varying sediment grain-size major mode and range) as well as differences in the camera settings at Stations 01B, 02, 03, 04, and 06 where fewer weights and lower stop collar settings were used. All stations north of Station 06 had the maximum amount of lead weights (an extra 250 lbs of lead added to the camera chassis) and the stop collars set for maximum possible penetration in high bearing strength sediments. The average station prism penetration depth over the entire study area ranged from 6.8 cm to 20.4 cm, with an overall site average of 13.9 cm. The shallowest average prism penetration was found at Station S15; this was the same station in 2011 that had the shallowest penetration, and a layer of coarse sand could be seen at the sediment surface. The distinct layer of sand was still present but not visible due to the continued deposition of fine-grained particles which have been admixed with the sand grains through bioturbational activities of the infauna (Figure 10).

3.4 APPARENT REDOX POTENTIAL DISCONTINUITY DEPTH, SUBSURFACE METHANE, AND THIOPHILIC BACTERIAL COLONIES

The distribution of mean apparent RPD (aRPD) depths ranged from 0 cm (anoxic muds found once again at Station 02 as well at Stations 05 and 14; Figure 11) to 0.6 cm. The overall station-averaged mean aRPD depth for the site was 0.29 cm. Low oxygen conditions were present in replicate images from 11 stations in this year's survey (Figure 11), with additional stations showing hypoxic/anoxic stress (Figure 12) as indicated by the presence of sulfur-oxidizing bacterial colonies (*Beggiatoa* spp.). In the past, these thiophilic bacterial colonies were only seen at Station 2, but their presence has spread as organic loading continues to affect the waterway. These white, filamentous bacterial colonies (Figure 12) only appear at the sediment surface when dissolved oxygen concentrations in the benthic boundary layer drop below 1 mg/L (Rosenberg and Diaz, 1993). No subsurface methane was found in any of the replicate images.

3.5 INFAUNAL SUCCESSIONAL STAGE

The mapped distribution of infaunal successional stages is shown in Figure 13. As has been the case in the previous surveys, lower order successional seres dominated most of the stations outside of the City Recontamination Capping Area (Figure 13). High densities of capitellid polychaetes continued to be present at Station 02 where hypoxic conditions existed (Figure 12); from the details of the tubes, they appear to be

Mediomastus sp., and these same worms are present at all of the locations where Stage 1 assemblages are indicated (Figure 13).

3.6 ORGANISM-SEDIMENT INDEX

The spatial distribution of median OSI values throughout the study area can be seen in Figure 14. An OSI of +6 or less typically indicates that a benthic habitat has experienced physical disturbances, eutrophication, or excessive bioavailable contamination in the recent past. This is the first survey where no station had a value above the +6 threshold (Figure 14), indicating that the entire area is a relatively disturbed habitat; six stations had a median OSI value in the negative range.

3.7 BENTHIC HABITAT CLASSIFICATION

The spatial distribution of mapped benthic habitats in the Thea Foss Waterway can be seen in Figure 15. Evidence of the City of Tacoma's cap material was not really visible in any of the images from 7 stations north of the SR509 bridge within the designated capped boundary.

3.8 COMPARISON WITH PREVIOUS SURVEY RESULTS

A summary of these data over all stations is shown in Table 4 and Figure 16.

Table 4. Mean Values Among All Stations and Mean Differences

Variable	2006 Survey (n=15)	2008 Survey (n=18)	2011 Survey (n=18)	2014 Survey (n=18)
Mean aRPD Depth (cm)	0.90	1.66	0.86	0.29
Highest Successional Stage Rank	5.6	5.8	3.8	4.9
Median OSI	4.9	6.9	2.6	2.1
Mean Penetration Depth (cm)	11.9	11.4	13.6	13.9

A statistical comparison of penetration depth was not done because the camera settings (stop collar position and number of weights used) were not consistent at each location during all four surveys; however, the general trend of greater penetration depth in the 2011 and 2014 surveys is readily apparent (Figure 16) because of the shift in sediment grain size major mode to a finer particle size over the years from natural depositional processes occurring in the waterway.

3.8.1 Comparison of Mean aRPD Depth

On average, the data indicated a slight increase in mean values from 2006 to 2008, and then a steady a decrease from 2006 to 2014 (Table 5, Figure 16). The individual station values are shown in Table 5 and Figure 17.

Table 5. Station average aRPD values by station and year

	Station Average aRPD (cm)				
Station	**2006**	**2008**	**2011**	**2014**	**Theil-Sen Slope[1]**
01B	0.11	2.07	0.30	0.04	-0.05
02	0	0	0	0	0
03	1.03	2.03	1.38	0.60	-0.14
04	1.24	2.08	0.39	0.25	-0.15
05	0.74	1.52	0.45	0	-0.12
06	0.95	0.88	1.13	0.27	-0.06
07	1.11	0.71	0.89	0.06	-0.12
08	0.83	1.46	0.95	0.22	-0.12
09	0.95	1.55	0.94	0.18	-0.15
10	1.09	2.05	1.65	0.51	-0.10
11	1.26	1.89	1.20	0.37	-0.17
12	1.19	2.64	1.71	0.28	-0.21
13	0.58	1.74	0.45	0.53	-0.02
14	1.02	1.06	0.60	0	-0.14
15	n/a[2]	2.08	1.35	0.34	-0.29
17	n/a	2.61	0.25	0.45	-0.36
19	1.45	2.17	0.92	0.62	-0.11
24	n/a	1.40	0.95	0.44	-0.16
Sample size:	15	18	18	18	18
Average:	0.90	1.66	0.86	0.29	-0.14
Std Error:	0.11	0.16	0.12	0.05	--
95LCB	0.72	1.39	0.66	0.20	-0.16
95UCB	1.09	1.94	1.06	0.37	-0.08
Est. Method:[3]	t-interval	t-interval	t-interval	t-interval	Gilbert

[1] Hirsch et al.(1982) modification of the Theil-Sen slope estimate (Millard 2013).
[2] n/a = not available; station was not sampled in 2006.
[3] Estimation method is a t-interval for the confidence limits within each year; confidence limits on the slope based on Gilbert's modification of Theil-Sen Method (Gilbert 1987, as implemented in Millard 2013).

The site-wide trend was negative (average slope = -0.14, Table 5). Every station but one had a negative slope; the exception was Station 2 which had a zero slope (aRPD values were consistently zero in each year). The regional Kendall test for trend indicated that there was a significant site-wide decline in aRPD values (regional Kendall Z-statistic for trend = -4.1, p<<0.001). The 95% upper confidence bound on the slopes was -0.08 (Table 5), indicating a small but consistent negative trend in these values.

3.8.2 Comparison of Successional Stage Ranks

The data indicated very high rank variables for most stations in 2006 and 2008 (rank of 6 indicating Stage 3 or equivalent). There were noticeable declines in 2011 with more locations having Stage 1 successional assemblages than in previous years; less than half the stations were Stage 2 or above. Of the 15 stations that showed successional stage declines in 2011, ten of these increased back to Stage 3 in 2014. The average successional stage rank was 5.6 in 2006, 5.8 in 2008, 3.8 in 2011, and 4.9 in 2014 (Table 1, Figure 1). The individual station values are shown in Table 6 and Figure 18.

The site-wide trend was negative (average slope = -0.13, Table 6). There were six stations with negative slopes (01B, 02, 05, 06, 09, and 14), 11 stations with a zero slope, and one station with a small positive slope (07; see Figure 18). The regional Kendall test for trend indicated that there was a significant site-wide decline in successional stage rank values (regional Kendall Z-statistic for trend = -2.45, p=0.014). Both the upper and lower 95% confidence bounds on the slopes were 0 (Table 6), indicating a dominant neutral trend across the 18 stations at the site. The statistical significance of the regional Kendall test for trend (p = 0.014) is driven by consistent site-wide declines in the successional stage rank values in the more recent survey years, particularly in 2011.

Table 6. Maximum Successional Stage Rank values by station and year

	Station Max SS Rank				
Station	**2006**	**2008**	**2011**	**2014**	**Theil-Sen Slope[1]**
01B	6	6	5	2	-0.42
02	2	6	3	2	-0.17
03	6	6	6	6	0
04	6	6	2	6	0
05	6	6	3	2	-0.55
06	6	3	2	6	-0.17
07	5	6	3	6	0.06
08	6	6	3	6	0
09	5	6	2	2	-0.49
10	6	6	6	6	0
11	6	6	3	6	0
12	6	6	5	6	0
13	6	6	3	6	0
14	6	6	2	2	-0.58
15	n/a[2]	6	5	6	0
17	n/a	6	6	6	0
19	6	6	5	6	0
24	n/a	6	4	6	0
Sample size:	15	18	18	18	18
Average:	5.6	5.8	3.8	4.9	-0.13
Std Error:	0.3	0.2	0.3	0.4	0.05
95LCB	4.2	n/c[4]	3.2	3.9	0
95UCB	5.9	6.0	4.4	5.5	0
Est. Method:[3]	bootstrap	bootstrap	bootstrap	bootstrap	Gilbert

[1] Hirsch et al.(1982) modification of the Theil-Sen slope estimate (Millard 2013).
[2] n/a = not available; station was not sampled in 2006.
[3] Estimation method uses the bootstrap-t for the confidence limits within each year; confidence limits on the slope based on Gilbert's modification of Theil-Sen Method (Gilbert 1987, as implemented in Millard 2013).
[4] n/c = not calculable; there were too many ties in the data to produce a 95% lower confidence bound.

3.8.3 Comparison of Median OSI Values

Overall, the data showed a station average increase 2006 to 2008 of 1.9; station average values declined sharply in 2011 and remained at a low level in 2014 (Table 4 and Figure 16). Most stations showed a decline; the individual stations that showed the most marked and consistent decline in OSI values were stations 05, 09, and 14 (Table 7 and Figure 19).

Table 7. Median OSI values by station and year

	Station Median OSI Values				
Station	2006	2008	2011	2014	Theil-Sen Slope[1]
01B	-1	9	-1	-3	-0.46
02	-3	1	-3	-3	0
03	7	7	5	5	-0.29
04	7	8	-2	4	-0.52
05	6.5	8	2	-3	-1.43
06	5	3	3	3	-0.13
07	3	4	4	-3	-0.38
08	3	7	3	2	-0.23
09	5	6.5	3	-2	-1.02
10	7	8	8	5	-0.13
11	7	8	3	2	-0.71
12	7	10	7	6	-0.23
13	6	8	2	6	-0.17
14	7	5	-1	-3	-1.29
15	n/a[2]	8	6	5	-0.50
17	n/a	8	1	6	-0.33
19	7	9	4	6	-0.31
24	n/a	7	3	5	-0.33
Sample size:	15	18	18	18	18
Average:	4.9	6.9	2.6	2.1	-0.47
Std Error:	0.8	0.5	0.7	0.9	0.09
95LCB	2.4	5.7	1.4	0.4	-0.67
95UCB	6.0	7.7	3.7	3.6	-0.27
Est. Method:[3]	bootstrap	bootstrap	bootstrap	bootstrap	Gilbert

[1] Hirsch et al.(1982) modification of the Theil-Sen slope estimate (Millard 2013).
[2] n/a = not available; station was not sampled in 2006.
[3] Estimation method uses the bootstrap-t for the confidence limits within each year; confidence limits on the slope based on Gilbert's modification of Theil-Sen Method (Gilbert 1987, as implemented in Millard 2013).

The site-wide trend was negative (average slope = -0.47, Table 7). Every station but one had a negative slope; the exception was Station 2 which had a zero slope. The regional Kendall test for trend indicated that there was a significant site-wide decline in OSI values (regional Kendall Z-statistic for trend = -4.1, $p \ll 0.001$). The 95% upper confidence bound on the slopes was -0.27 (Table 7), indicating a small but consistent negative trend in these values across all stations.

4.0 DISCUSSION

The primary objective of this SPI technology survey was to continue documenting benthic habitat status and recolonization of benthic infauna as part of the post-cap environmental monitoring in the Thea Foss Waterway and compare the results of the most recent survey to the two previous surveys. While the overall site benthic habitat status and recolonization was not significantly different between the first two surveys, the results from this most recent survey followed the predictions in our last report of a continued retrograde in both habitat conditions and benthic community assemblages. While there were some indications of stalled recovery in the 2008 survey because conditions were essentially the same as those detected in 2006, the profile images from both 2011 and 2014 were notably different from those collected during the first two surveys because of the increased deposition of reduced, fine-grained sediments throughout the area that erased most visible signatures of the capping layer; this is readily seen in the pop-up map provided under separate cover where representative images from each of the last 3 surveys are displayed with each station selected by the user. As pointed out in our last report, the continued degradation is not that surprising a conclusion given the study area's location and the point sources of input to this system (mainly storm-water outfalls at the head of the waterway as well as on the east and west sides under the SR509 bridge). Unless there is some engineering control or diversion instituted for these source inputs, the supply of organically enriched material to the study area will continue to be a stressor to the benthic community and habitat conditions will continue to degrade; more and more stations will have profile images that look like those found at Station Y10-WC02-I (see Figure 12)

The differences noted among the 2006, 2008, and 2011 survey results in our last report are more exaggerated in the 2014 results for both in the distribution of sediment grain size at the sediment surface and in the cross-sectional matrix of the sediments observed in the camera prism from the continued deposition. The sediment grain-size major mode at the surface continues to evolve to a finer-grained matrix (Figure 20); there is no visible evidence of the original cap at the surface of any of the locations, and only a trace visible at one location (Figure 6). As was noted in our last report, the increase in organic loading is resulting in retrograde successional seres at more and more locations over time, following the classic response of benthic communities to organic enrichment (Figure 3, Pearson and Rosenberg 1978).

The conclusions from our last report have not changed:

1. There continues to be deposition of organically enriched, fine-grained sediment in the area as documented in the last 3 surveys. Unless something is done to control the sources of these fine-grained organics to the system, benthic habitat conditions will continue to degrade.

2. More stations are showing the presence of *Beggiatoa* as well as higher sediment oxygen demand, reflecting the eutrophic nature of the waterway.

Our prediction at the conclusion of the 2011 report still stands: the continued deposition of organically-enriched, fine-grained material has already obliterated any beneficial effects from the initial capping operations, and it will most likely continue to contribute to eutrophic conditions on the seafloor and lead to increased occurrence of *Beggiatoa* colonies at additional locations in the waterway as time goes on. The waterway will continue to degrade until the seafloor looks like it did before any remedial action was undertaken unless something is done in the near future to control source inputs of fine-grained organics.

5.0
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FIGURES

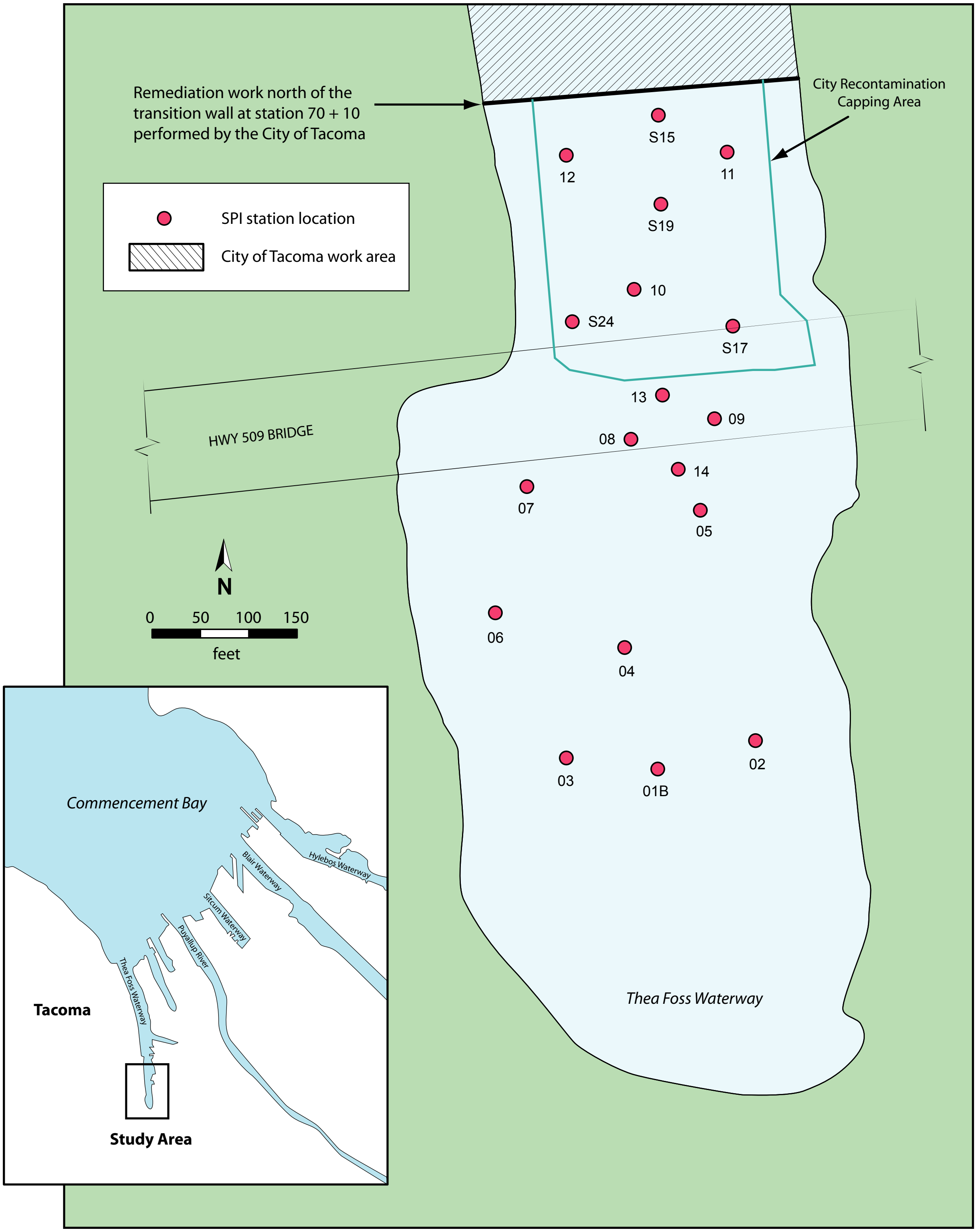


Figure 1: Location of SPI stations sampled in the Thea Foss Waterway in April, 2014.

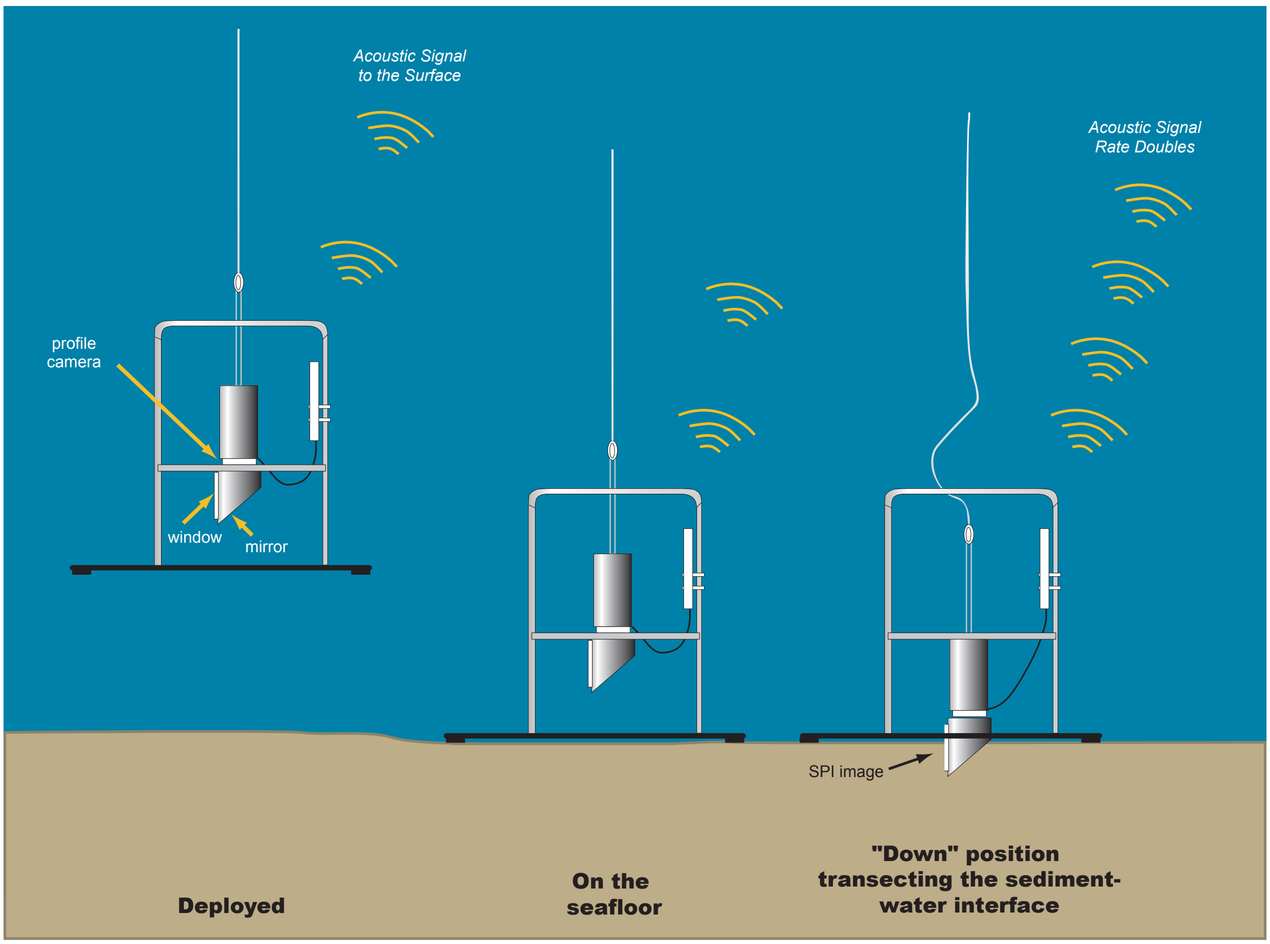


Figure 2: Deployment and operation of the Ocean Imaging Model 3731 Sediment Profile Camera.

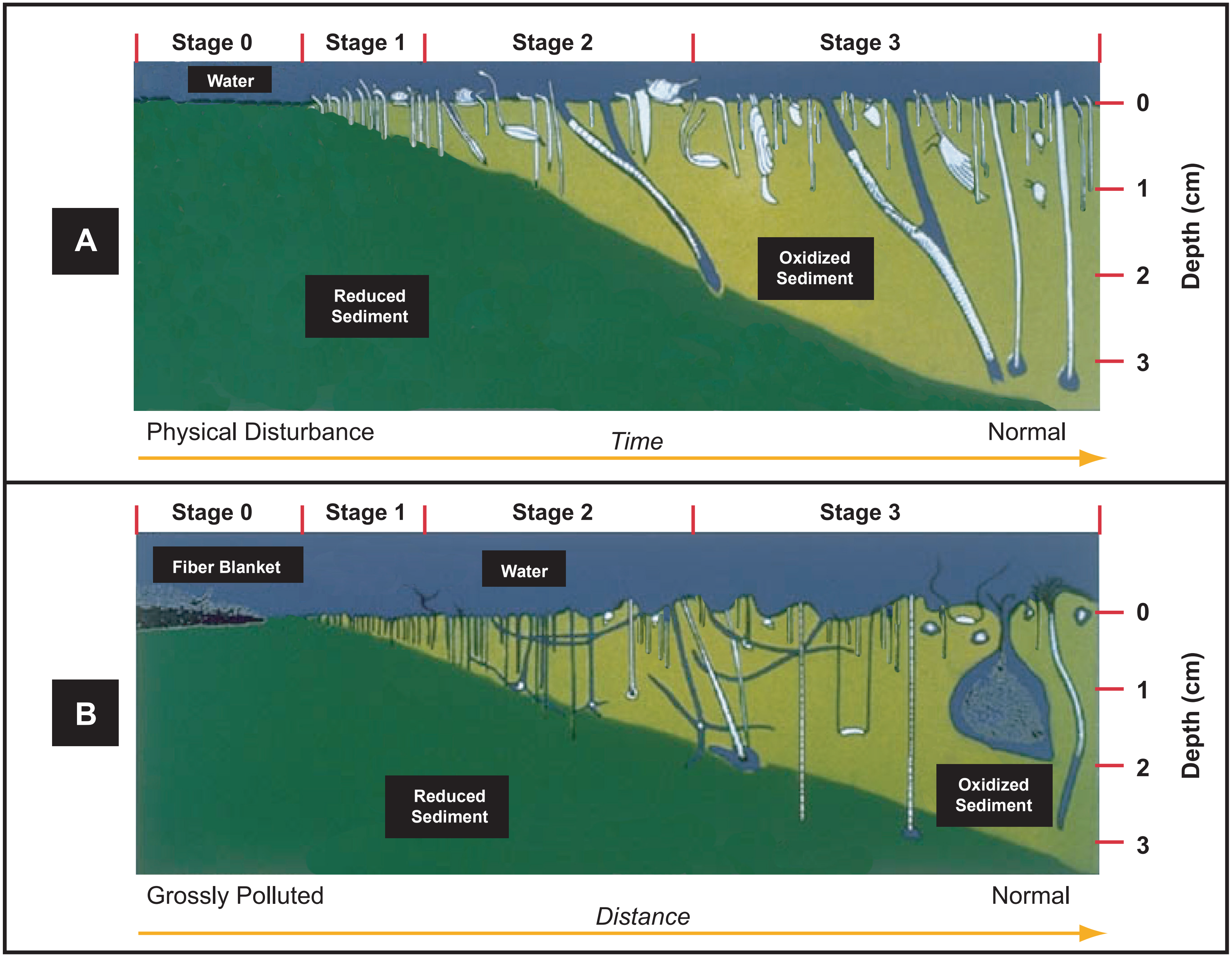


Figure 3: Soft-bottom benthic community response to physical disturbance (top panel) or organic enrichment (bottom panel). From Rhoads and Germano, 1982.

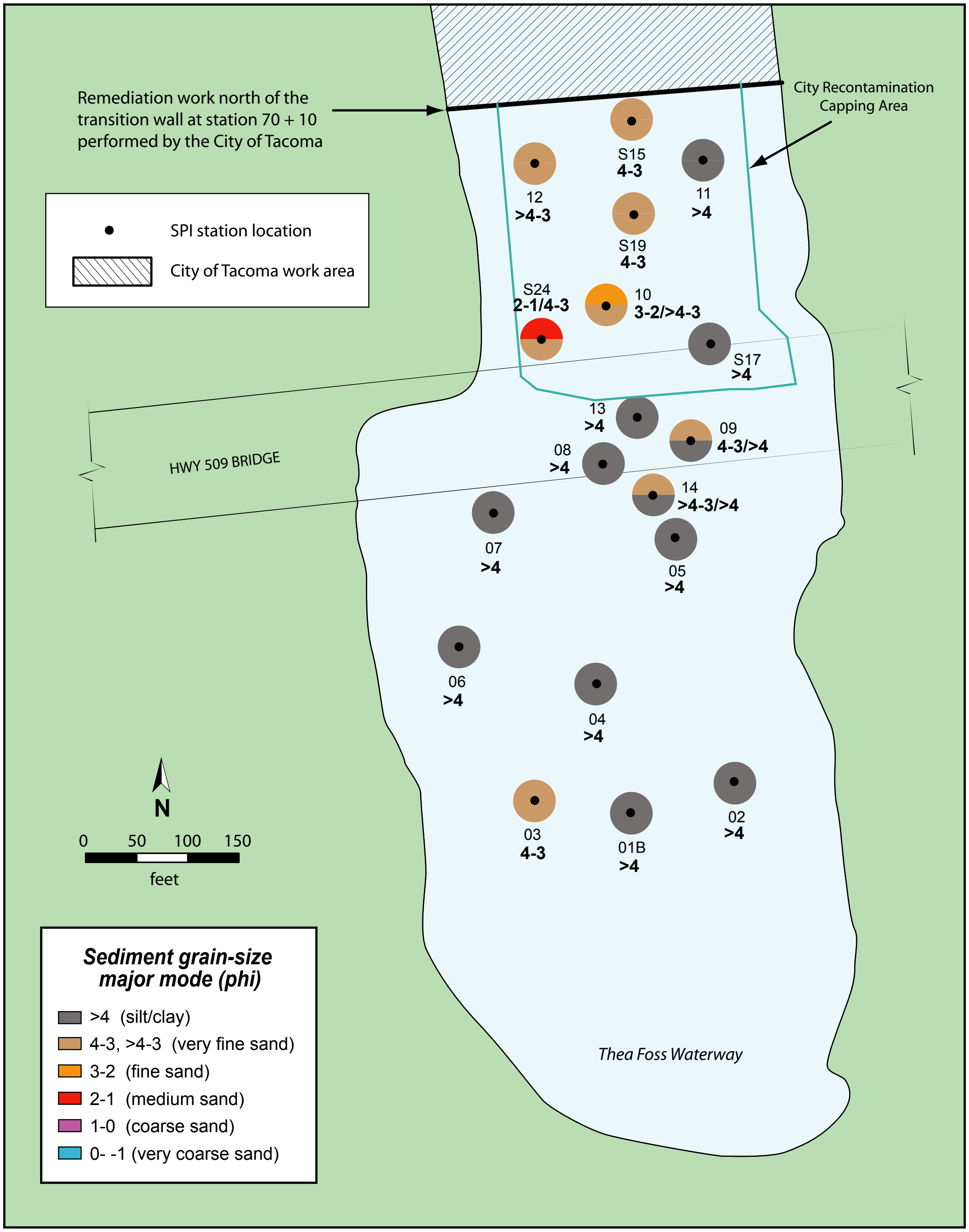


Figure 4: Sediment grain-size major mode (phi units) at the stations surveyed in April, 2014.

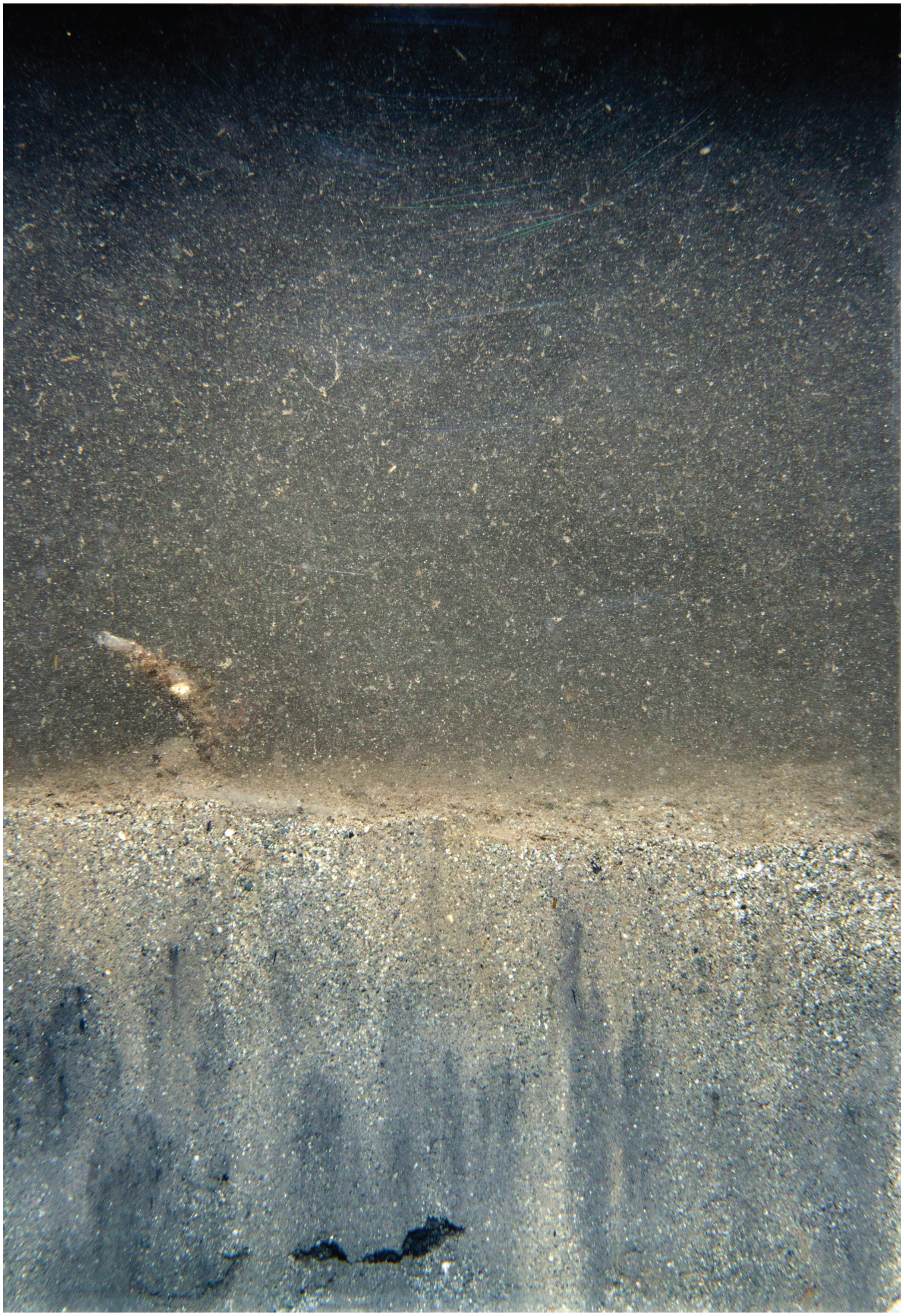


Figure 5: This profile image from Station Y10-S24-I shows a surface layer of recently deposited medium sand is being mixed in with the underlying silt clay from the reworking activities of the resident infauna. Scale: width of profile image =14.5 cm.

Figure 6: This profile image from Station Y10-S19-I shows some traces of the coarser sand from the historical cap at the base of the image. Scale: width of profile image =14.5 cm.

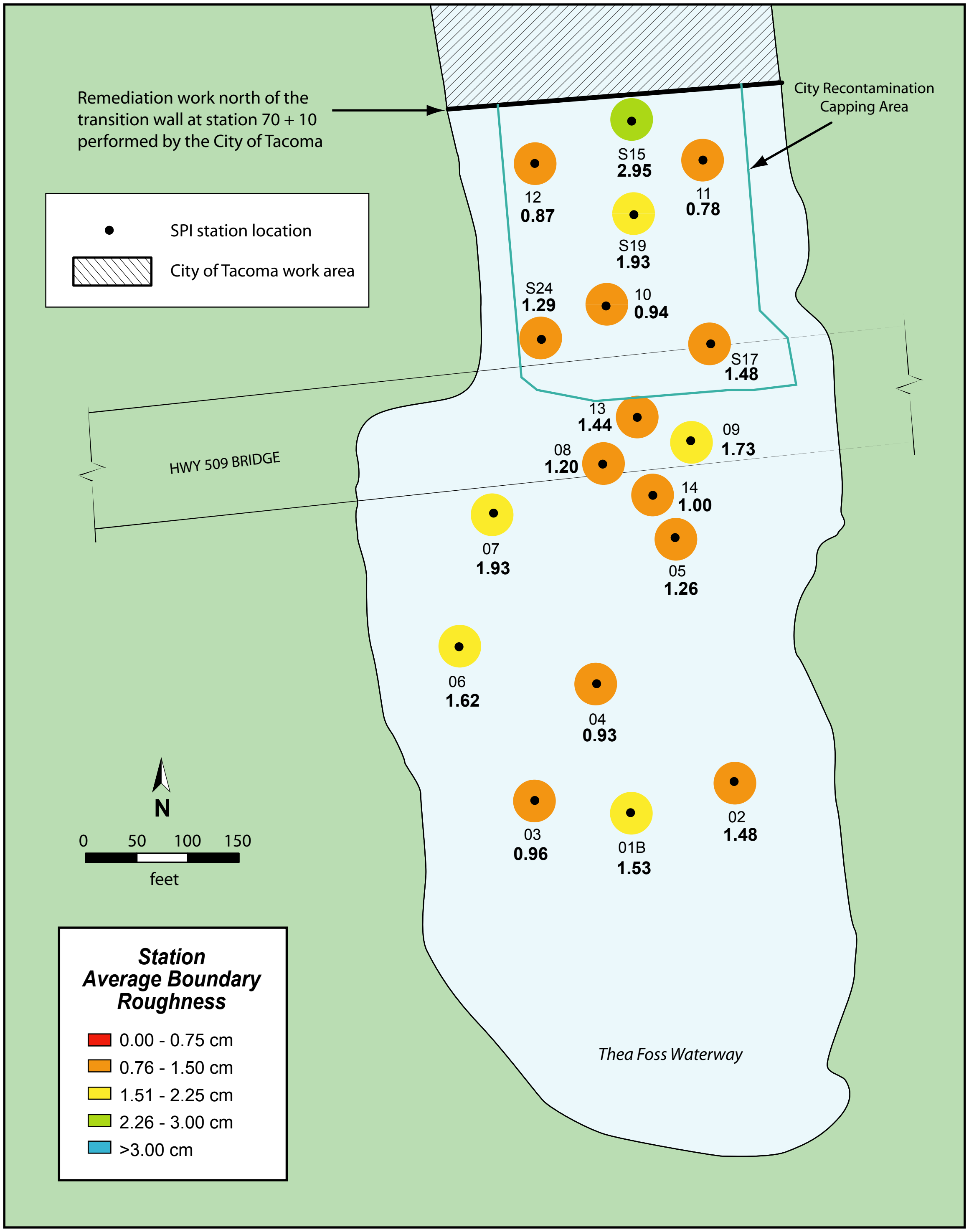


Figure 7: Spatial distribution of average station small-scale surface boundary roughness (cm) in the Thea Foss Waterway in April 2014.

Figure 8: The large surface boundary roughness values measured at Station Y10-S15-I were due to biogenic burrow openings or mounds; note the large polychaete tube sticking above the sediment surface to the left of the burrow opening. Scale: width of profile image =14.5 cm.

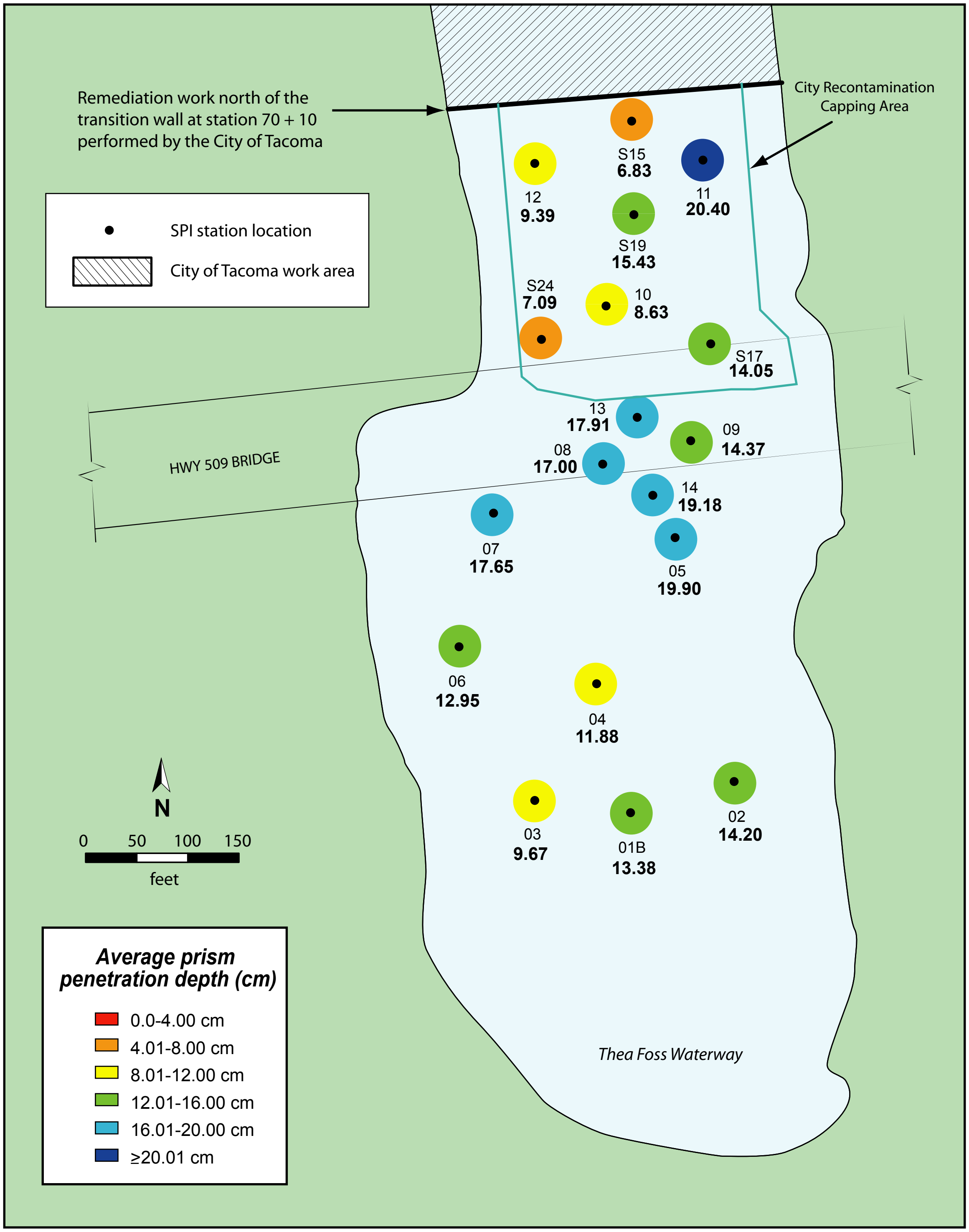
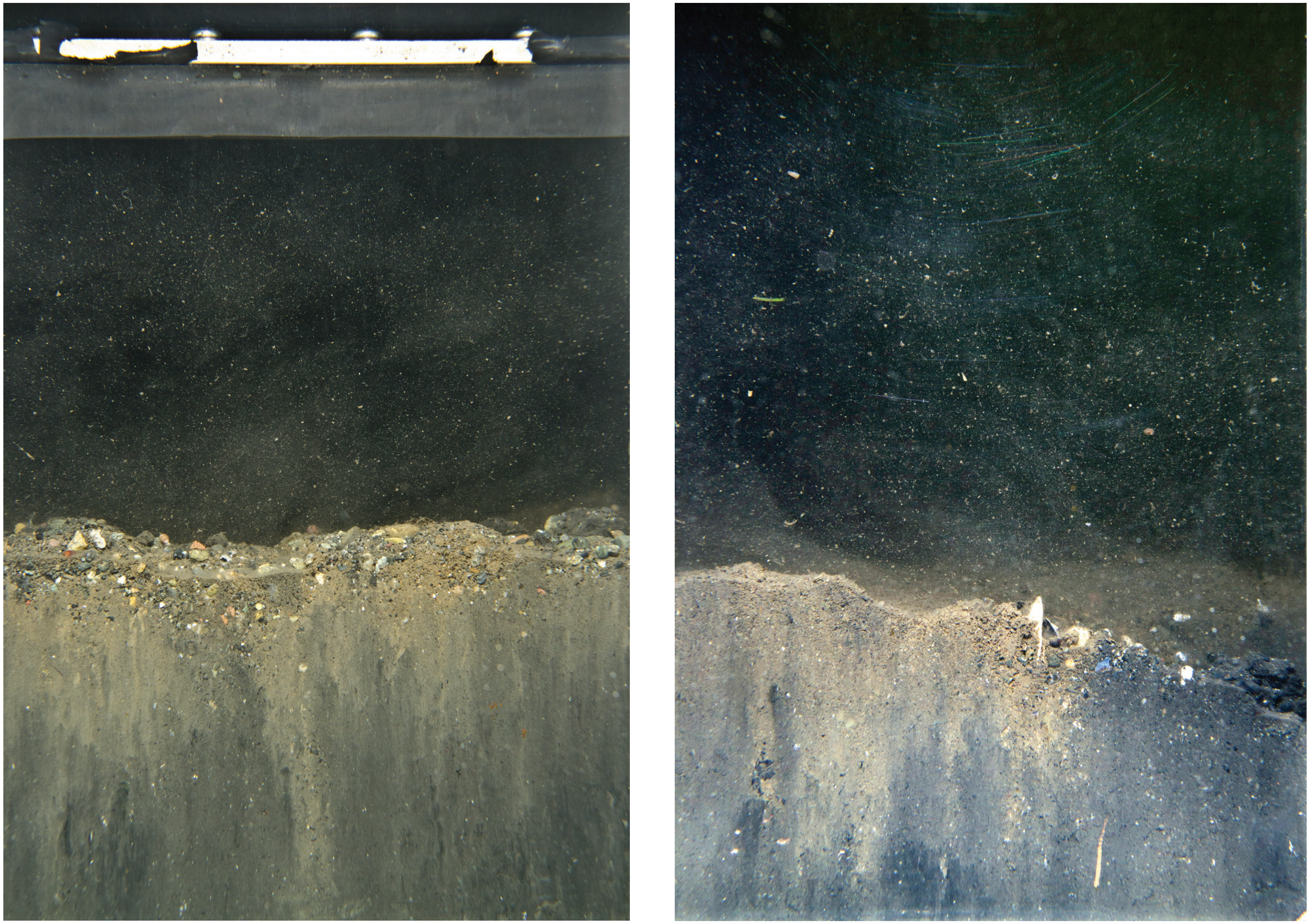


Figure 9: Spatial distribution of average station prism penetration depth (cm) in the Thea Foss Waterway in April 2014.



2011 **2014**

Figure 10: While the surface layer of coarse sand that existed at this location in 2011 (left) is no longer visible, you can still see traces of the coarser particles mixed throughout the sediment column at Station Y10-S15-I in 2014 (right) that is providing the higher bearing strength to these sediments. Scale: width of each profile image = 14.5 cm.

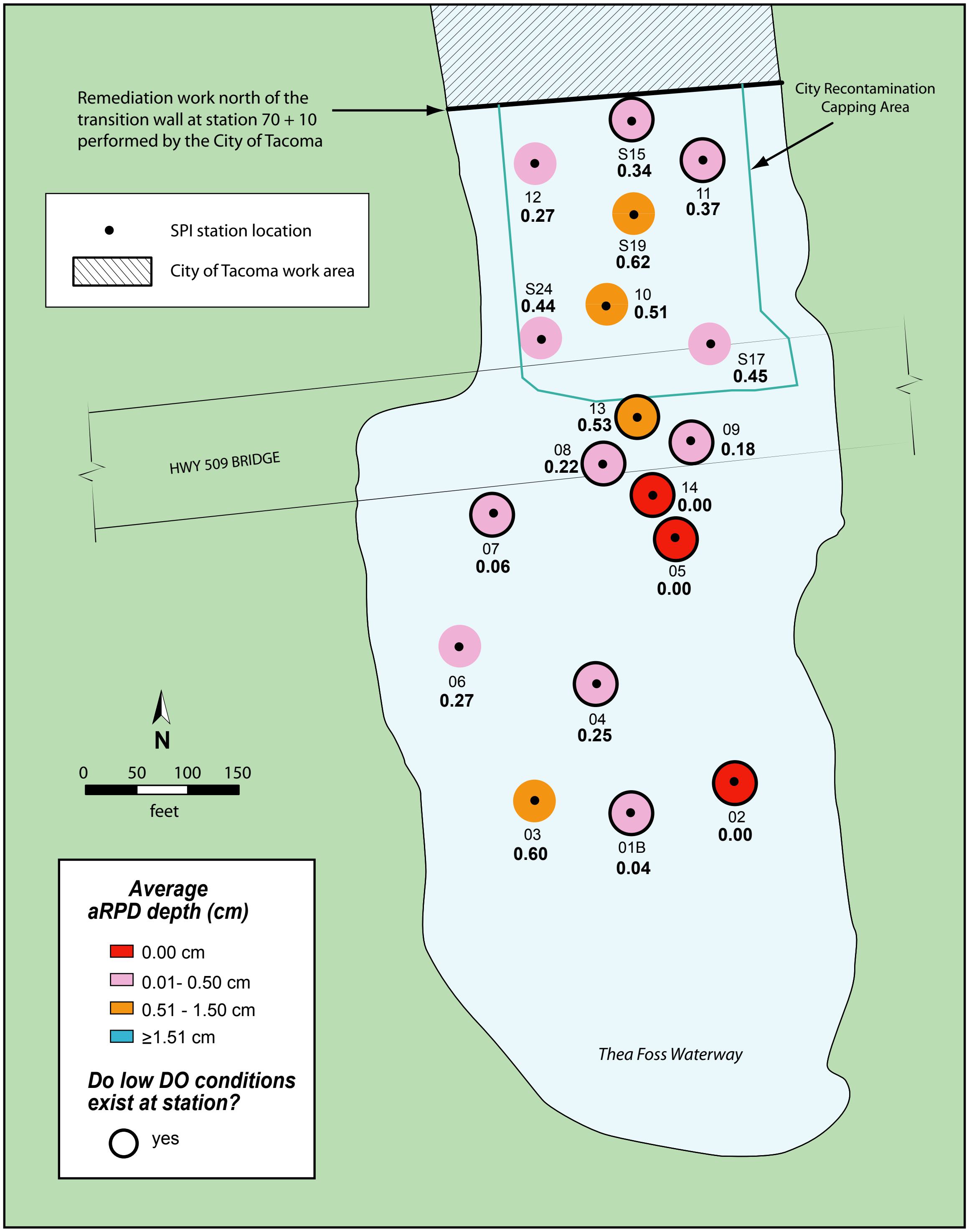


Figure 11: Spatial distribution of average station aRPD depth (cm) and presence of low dissolved oxygen conditions in the Thea Foss Waterway in April 2014.

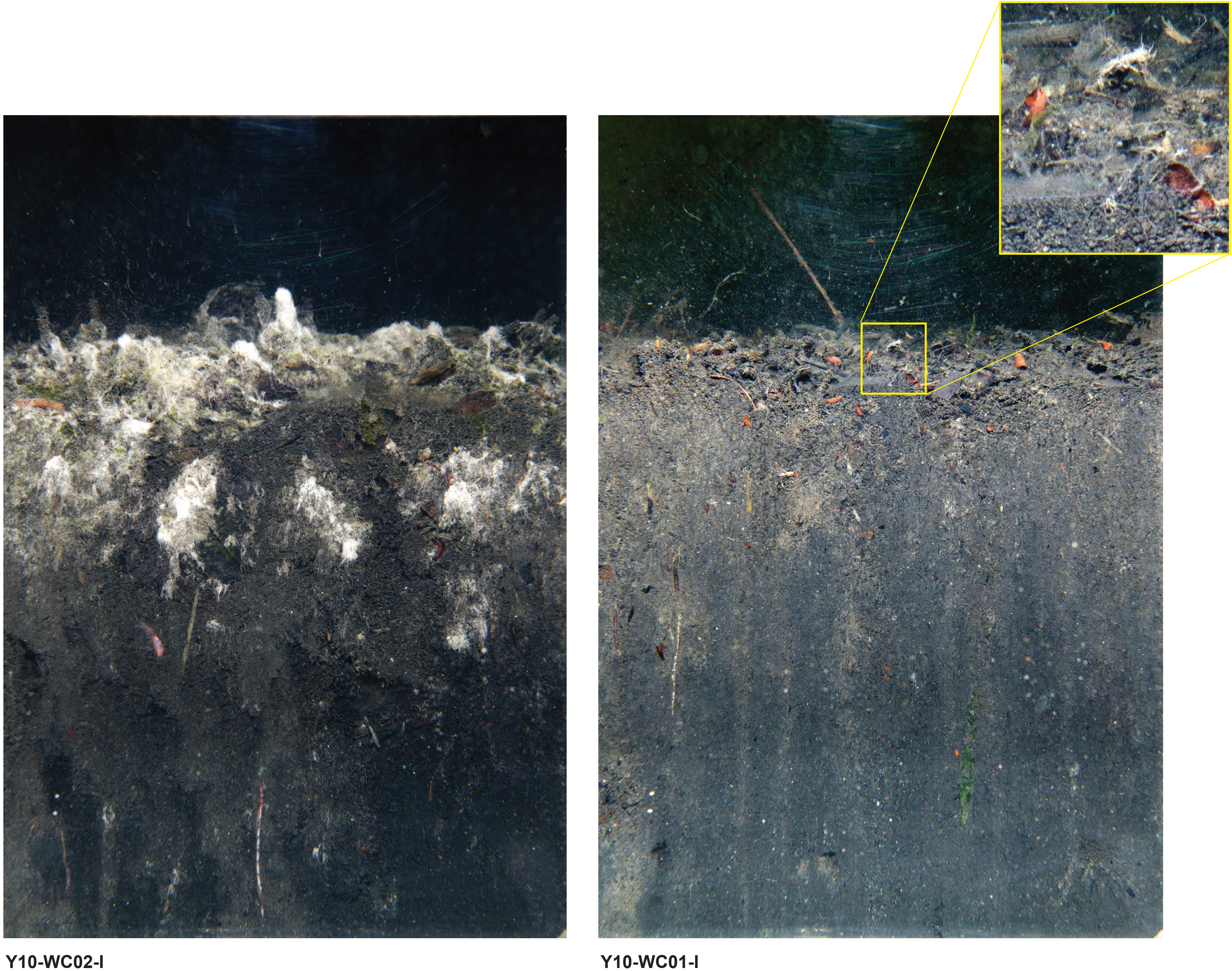


Figure 12: These profile images from Stations Y10-WC02-I (left) and Y10-WC01-I (right) show varying concentrations of thiophilic bacterial colonies; a dense surface mat is visible at Station Y10-WC02-I on the left, while traces of the filamentous colonies are just starting to get established at station Y10-WC01-I (see inset). Scale: width of each profile image = 14.5 cm.

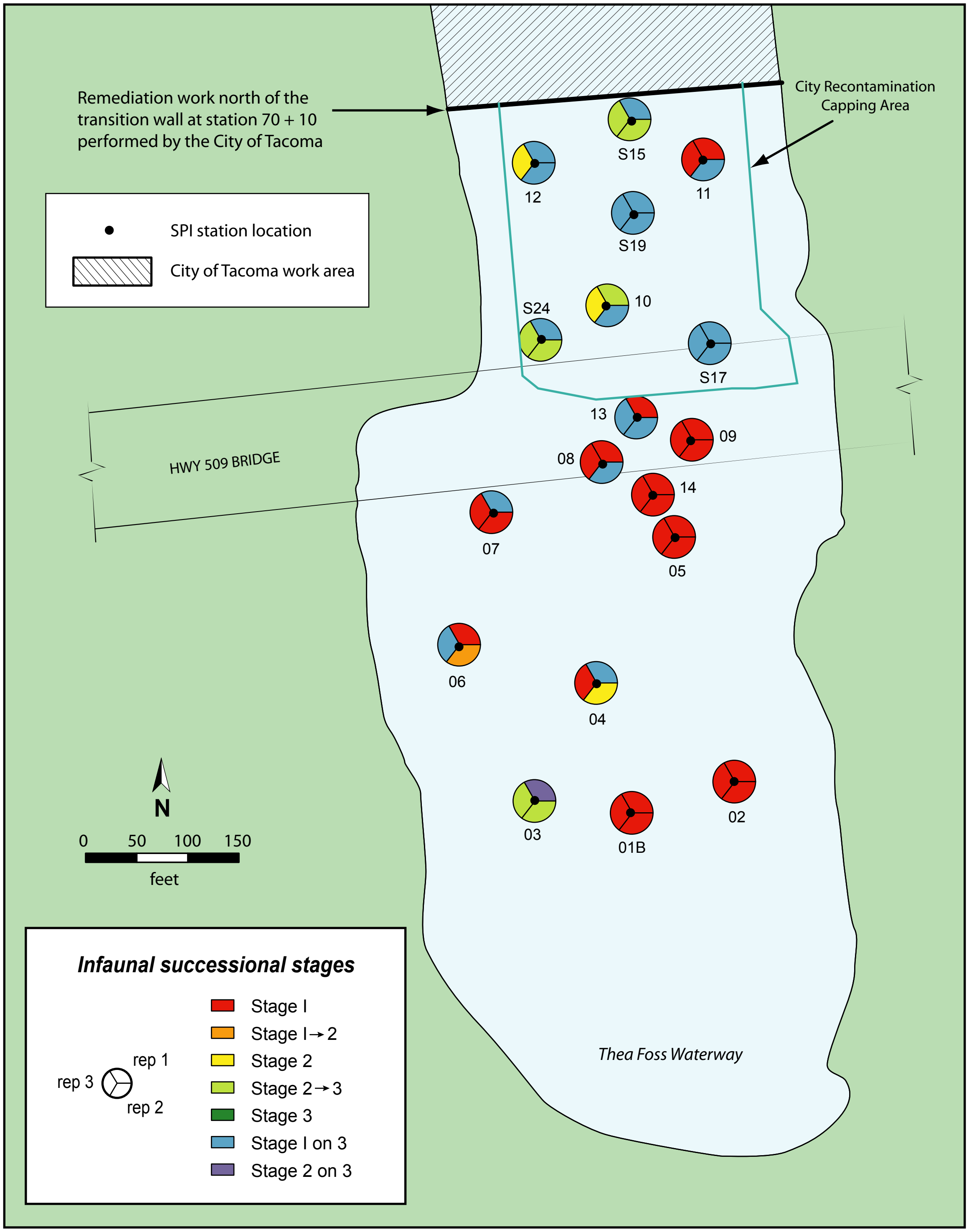


Figure 13: Distribution of infaunal successional stages for all sediment profile images collected in the Thea Foss Waterway in April 2014.

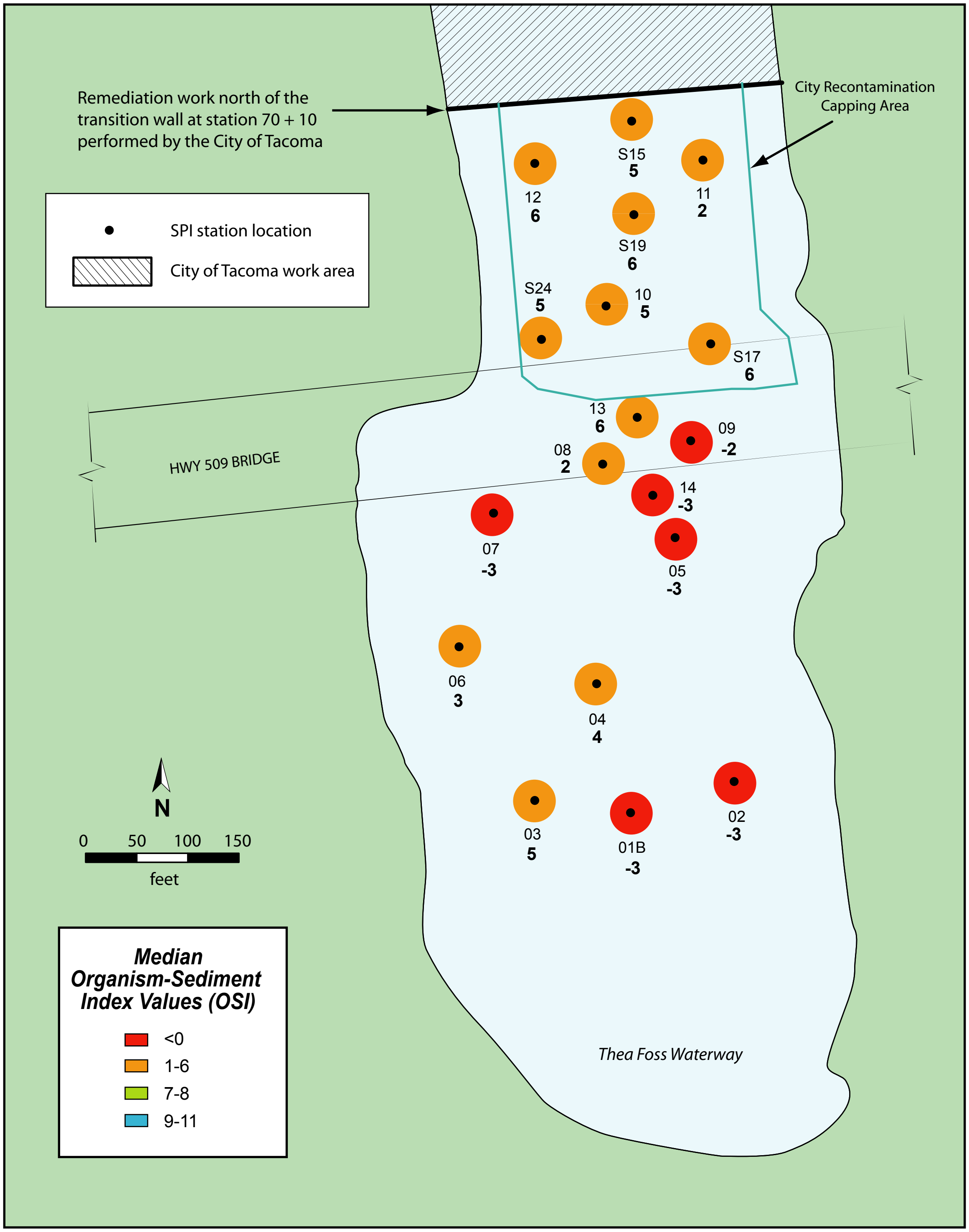


Figure 14: Spatial distribution of median station OSI values in the Thea Foss Waterway in April 2014.

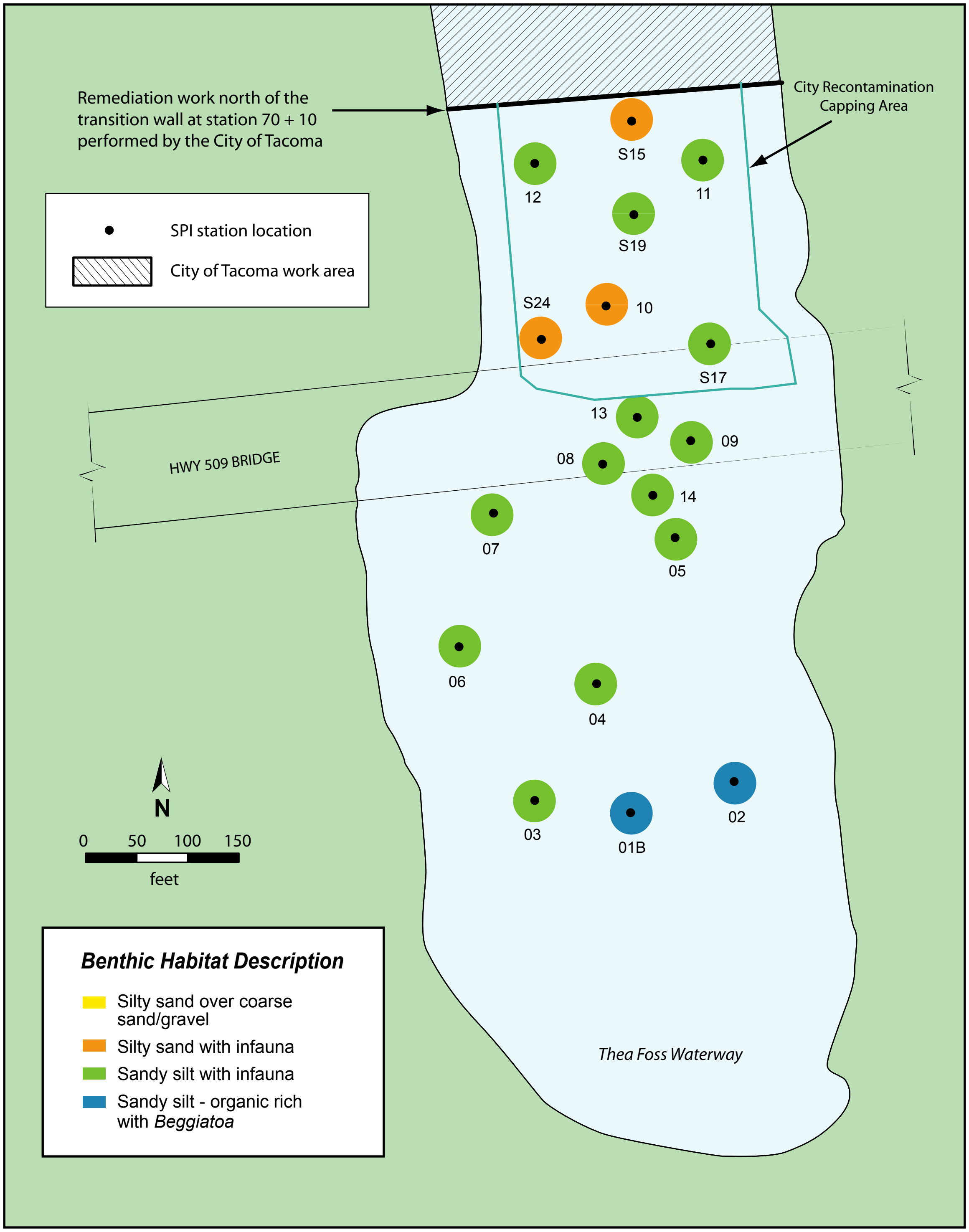


Figure 15: Spatial distribution of benthic habitat based on SPI classification in the Thea Foss Waterway in April 2014.

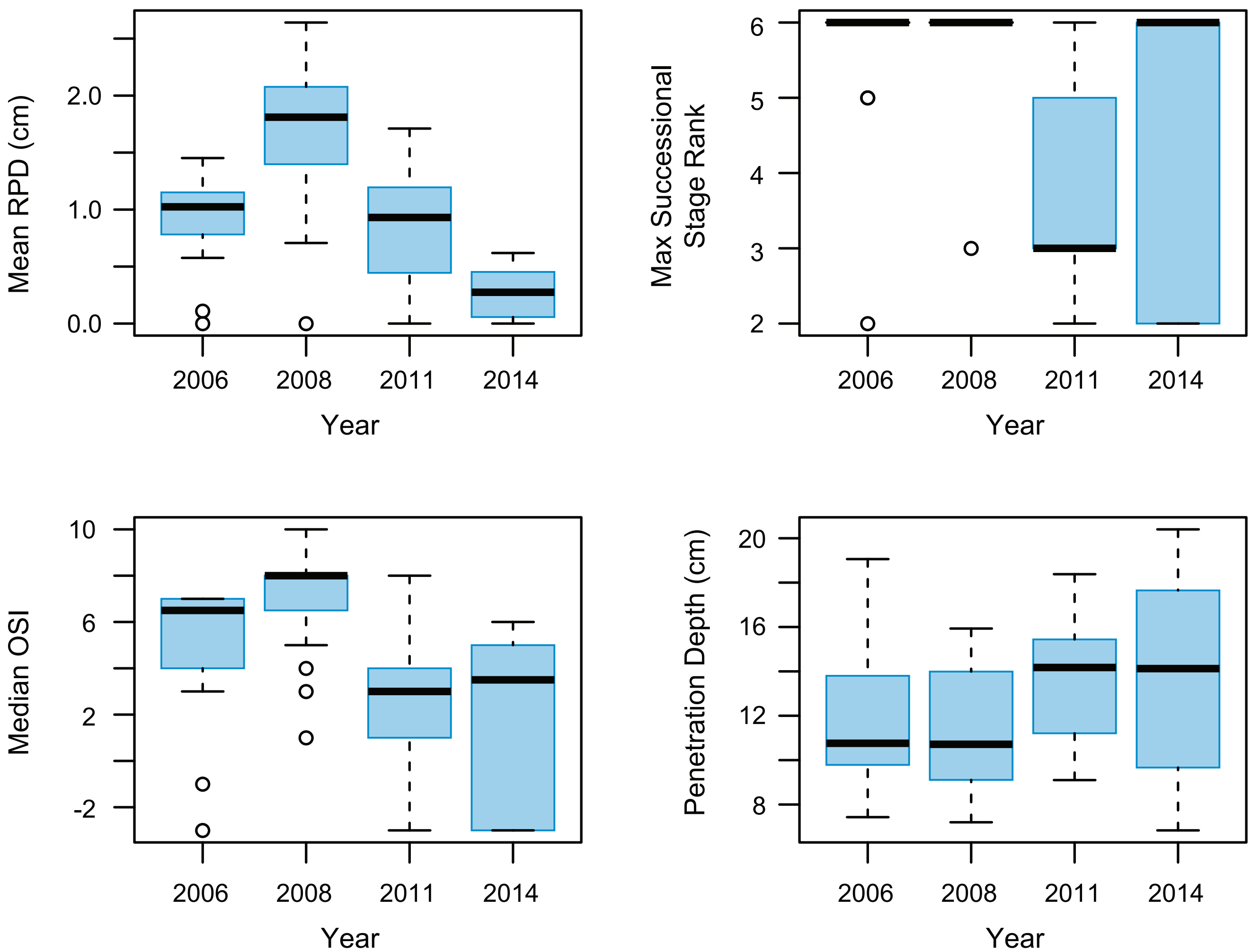


Figure 16: Boxplots showing distribution of station values for selected SPI variables for 2006, 2008, 2011, and 2014 Thea Foss Waterway surveys.

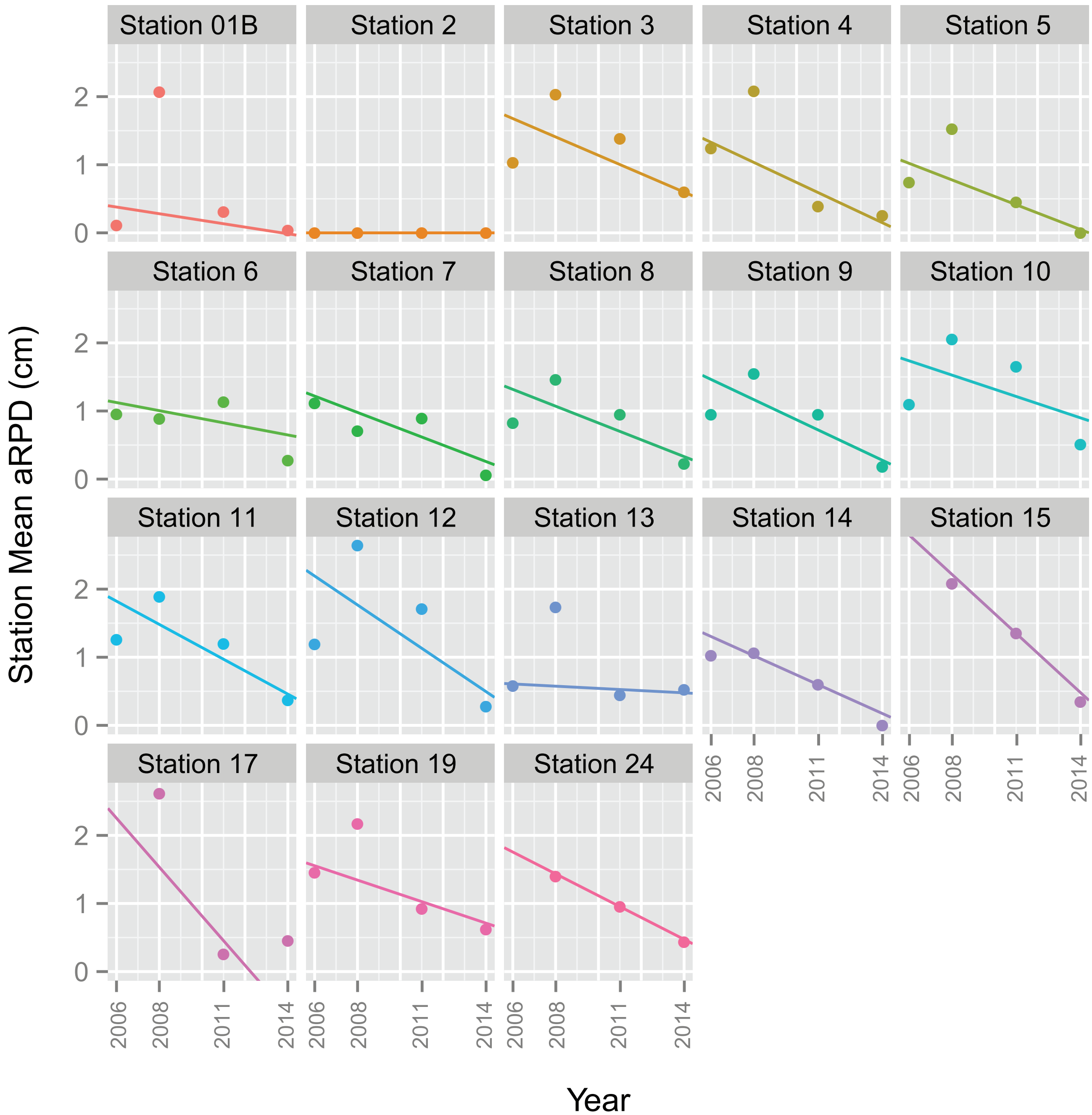


Figure 17: Trend charts showing the mean aRPD values by station in the Thea Foss Waterway for the four survey years.

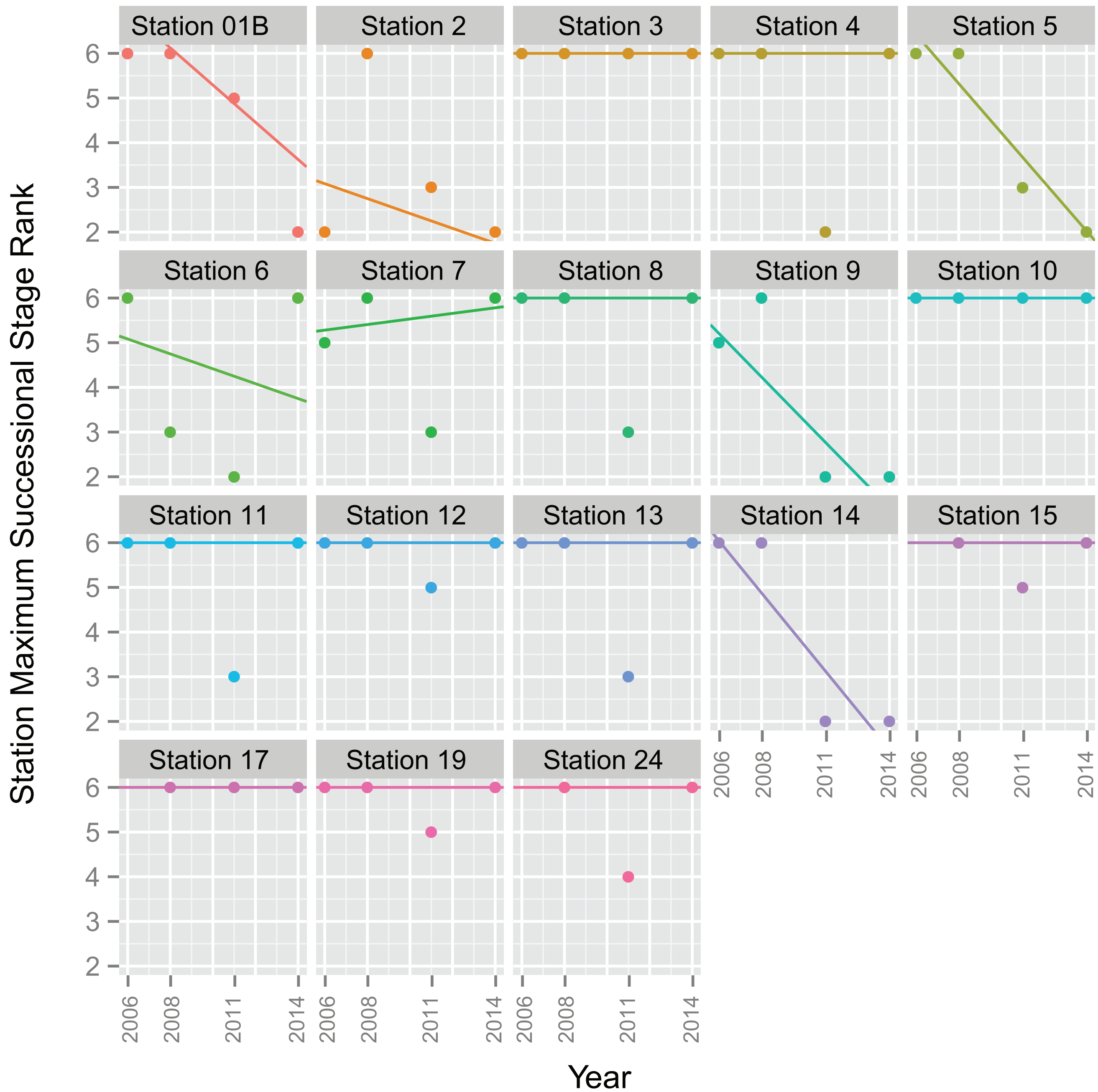


Figure 18: Trend charts showing the maximum Successional Stage rank value by station in the Thea Foss Waterway for the four survey years.

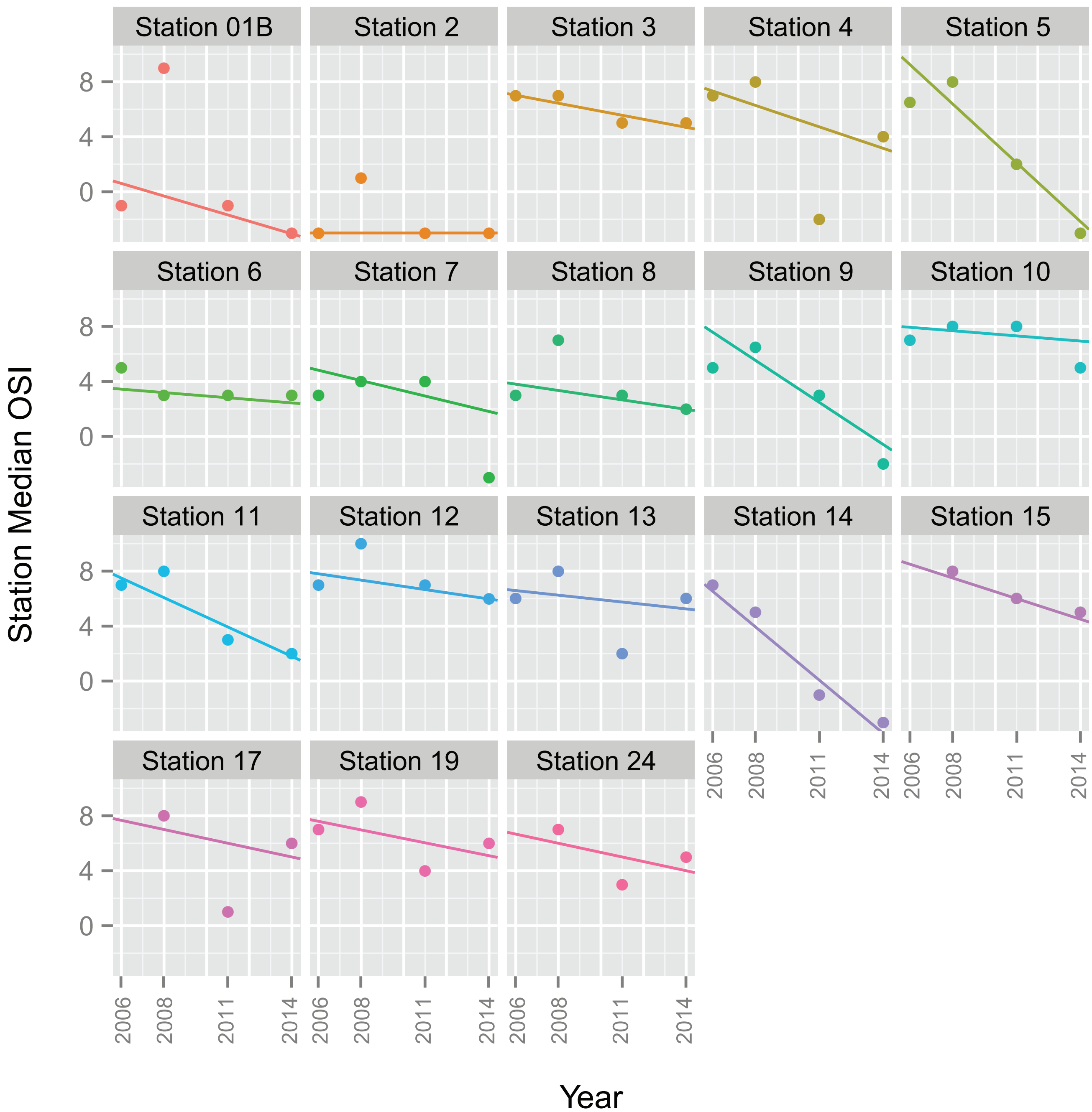
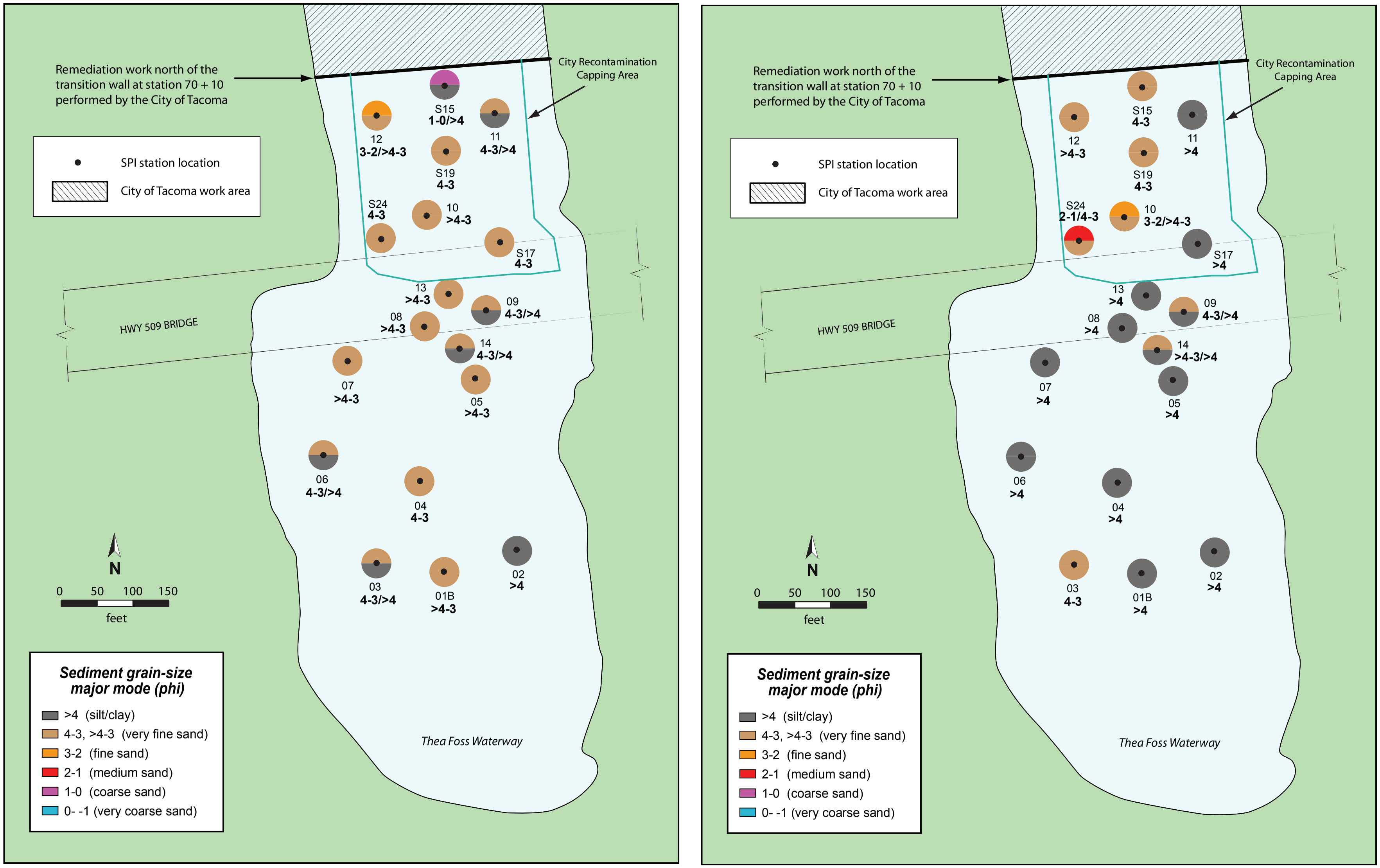


Figure 19: Trend charts showing the median OSI values by station in the Thea Foss Waterway for the four survey years.



2011

2014

Figure 20: These sediment grain size maps from 2011 (left) and 2014 (right) show the continued increase of finer grained sediments in the area from natural depositional processes that was noted in the 2011 survey report.

APPENDIX A

Sediment Profile Image Analysis Results

STATION	Rep	Stop Collar Settings (in.)	# of weights per chassis	DATE	TIME	Water Depth (ft)	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE (phi)	Penetration Area (sq.cm)	Average Penetration (cm)	Minimum Penetration (cm)	Maximum Penetration (cm)	Boundary Roughness (cm)	Origin of Boundary Roughness	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE present?	Low DO?
Y10-S15-I	a	16	5	4/28/2014	12:07:03	9.8	14.492	4-3	1	>4	>4 to 1	87.31	6.02	4.72	6.87	2.15	Biogenic	5.88	0.41	0	-	No	No
Y10-S15-I	b	16	5	4/28/2014	12:08:21	9.8	14.492	4-3	-2	>4	>4 to -2	97.09	6.70	4.45	7.81	3.36	Physical	2.71	0.19	1	Reduced	No	Yes
Y10-S15-I	c	16	5	4/28/2014	12:09:28	9.8	14.492	1-0/>4	0	>4	>4 to 0	112.70	7.78	5.90	9.24	3.34	Physical	6.37	0.44	0	-	No	No
Y10-S17-I	a	16	5	4/28/2014	11:25:16	6.2	14.492	>4	1	>4	>4 to 1	240.15	16.57	15.94	17.32	1.38	Biogenic	4.48	0.31	0	-	No	No
Y10-S17-I	b	16	5	4/28/2014	11:26:43	6.2	14.492	>4	0	>4	>4 to 0	204.46	14.11	13.33	14.56	1.23	Physical	6.22	0.43	0	-	No	No
Y10-S17-I	c	16	5	4/28/2014	11:28:17	6.2	14.492	3-2/>4	-1	>4	>4 to -1	166.28	11.47	10.48	12.29	1.81	Biogenic	8.98	0.62	0	-	No	No
Y10-S19-I	a	16	5	4/28/2014	11:49:54	10	14.492	>4/4-3	-1	>4	>4 to -1	195.40	13.48	12.82	14.13	1.31	Biogenic	10.03	0.69	0	-	No	No
Y10-S19-I	b	16	5	4/28/2014	11:51:04	10	14.492	4-3/>4/4-3	0	>4	>4 to 0	245.58	16.95	16.19	17.98	1.79	Biogenic	10.18	0.70	0	-	No	No
Y10-S19-I	c	16	5	4/28/2014	11:52:12	10	14.492	4-3	0	>4	>4 to 0	229.64	15.85	14.27	16.96	2.69	Biogenic	6.70	0.46	0	-	No	No
Y10-S24-I	a	16	5	4/28/2014	12:27:56	6.2	14.492	2-1/4-3	-1	>4	>4 to -1	113.24	7.81	6.90	8.13	1.23	Biogenic	7.83	0.54	0	-	No	No
Y10-S24-I	b	16	5	4/28/2014	12:29:05	6.2	14.492	2-1/4-3	-1	>4	>4 to -1	100.74	6.95	5.98	7.31	1.33	Physical	7.21	0.50	0	-	No	No
Y10-S24-I	c	16	5	4/28/2014	12:30:04	6.2	14.492	2-1/4-3	-1	>4	>4 to -1	94.36	6.51	5.95	7.26	1.31	Physical	3.93	0.27	0	-	No	No
Y10-WC01B-I	a	14	2	4/28/2014	9:39:09	7.6	14.492	>4	1	>4	>4 to 1	208.66	14.40	13.72	15.27	1.55	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC01B-I	b	14	2	4/28/2014	9:41:03	7.6	14.492	>4	1	>4	>4 to 1	187.23	12.92	12.39	13.43	1.04	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC01B-I	c	14	2	4/28/2014	9:42:13	7.6	14.492	>4	0	>4	>4 to 0	185.73	12.82	11.76	13.77	2.01	Biogenic	1.62	0.11	0	-	No	Yes
Y10-WC02-I	a	14	2	4/28/2014	9:54:28	6.4	14.492	>4	1	>4	>4 to 1	193.94	13.38	12.56	14.35	1.79	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC02-I	b	14	2	4/28/2014	9:55:27	6.4	14.492	>4	1	>4	>4 to 1	213.80	14.75	14.08	15.34	1.26	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC02-I	c	14	2	4/28/2014	9:56:15	6.2	14.492	>4	1	>4	>4 to 1	209.52	14.46	13.79	15.19	1.40	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC03-I	a	14	2	4/28/2014	10:00:01	6.7	14.492	4-3	1	>4	>4 to 1	139.12	9.60	9.22	10.06	0.85	Biogenic	13.20	0.91	0	-	No	No
Y10-WC03-I	b	14	2	4/28/2014	10:01:02	6.7	14.492	4-3	1	>4	>4 to 1	146.96	10.14	9.07	10.45	1.38	Physical	7.04	0.49	1	Reduced	No	No
Y10-WC03-I	c	14	2	4/28/2014	10:02:09	6.7	14.492	2-1/>4	-2	>4	>4 to -2	134.11	9.25	8.95	9.60	0.65	Biogenic	5.67	0.39	0	-	No	No

STATION	Rep	Stop Collar Settings (in.)	# of weights per chassis	DATE	TIME	Water Depth (ft)	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE (phi)	Penetration Area (sq.cm)	Average Penetration (cm)	Minimum Penetration (cm)	Maximum Penetration (cm)	Boundary Roughness (cm)	Origin of Boundary Roughness	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE present?	Low DO?
Y10-WC04-I	a	14	2	4/28/2014	10:07:11	8	14.492	>4	1	>4	>4 to 1	171.34	11.82	11.40	12.10	0.70	Biogenic	4.35	0.30	0	-	No	No
Y10-WC04-I	b	14	2	4/28/2014	10:08:07	8	14.492	>4	1	>4	>4 to 1	174.62	12.05	11.54	12.75	1.21	Biogenic	5.39	0.37	0	-	No	No
Y10-WC04-I	c	14	2	4/28/2014	10:09:09	8	14.492	>4	2	>4	>4 to 2	170.70	11.78	11.32	12.19	0.87	Biogenic	1.19	0.08	0	-	No	Yes
Y10-WC05-I	a	16	5	4/28/2014	10:34:26	7.5	14.492	>4	1	>4	>4 to 1	283.36	19.55	18.48	20.30	1.81	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC05-I	b	16	5	4/28/2014	10:35:43	7.5	14.492	>4	1	>4	>4 to 1	307.23	21.2	21.2	21.2	IND	ind	0.00	0.00	0	-	No	Yes
Y10-WC05-I	c	16	5	4/28/2014	10:36:38	7.5	14.492	>4	2	>4	>4 to 2	274.55	18.94	18.53	19.23	0.70	Biogenic	0	0.00	0	-	No	Yes
Y10-WC06-I	a	14	2	4/28/2014	10:15:25	7.2	14.492	>4	1	>4	>4 to 1	183.07	12.63	11.85	12.92	1.06	Biogenic	3.84	0.26	2	Oxidized	No	No
Y10-WC06-I	b	14	2	4/28/2014	10:16:28	7.2	14.492	>4	1	>4	>4 to 1	202.07	13.94	13.26	14.47	1.21	Biogenic	4.20	0.29	0	-	No	No
Y10-WC06-I	c	14	2	4/28/2014	10:17:29	7.2	14.492	>4	2	>4	>4 to 2	177.93	12.28	10.72	13.31	2.59	Physical	3.88	0.27	0	-	No	No
Y10-WC07-I	a	16	5	4/28/2014	12:34:55	5.7	14.492	>4	2	>4	>4 to 2	256.24	17.68	17.20	18.02	0.82	Physical	2.48	0.17	0	-	No	Yes
Y10-WC07-I	b	16	5	4/28/2014	12:35:53	5.7	14.492	4-3/>4	2	>4	>4 to 2	234.82	16.20	15.53	16.94	1.40	Physical	0.00	0.00	0	-	No	Yes
Y10-WC07-I	c	16	5	4/28/2014	12:36:52	5.7	14.492	>4	2	>4	>4 to 2	276.25	19.06	17.63	21.20	3.57	Physical	0.00	0.00	0	-	No	Yes
Y10-WC08-I	a	16	5	4/28/2014	11:01:32	7.4	14.492	>4	2	>4	>4 to 2	221.25	15.27	14.71	15.70	0.99	Physical	2.36	0.16	0	-	No	Yes
Y10-WC08-I	b	16	5	4/28/2014	11:02:26	7.4	14.492	>4-3/>4	-2	>4	>4 to -2	280.72	19.37	18.51	20.08	1.57	Physical	1.47	0.10	0	-	No	Yes
Y10-WC08-I	c	16	5	4/28/2014	11:03:25	7.4	14.492	>4	2	>4	>4 to 2	236.94	16.35	15.73	16.77	1.04	Biogenic	5.82	0.40	1	Reduced	No	No
Y10-WC09-I	a	16	5	4/28/2014	11:16:44	6.5	14.492	>4-3/>4	1	>4	>4 to 1	197.58	13.63	13.38	13.94	0.56	Biogenic	2.57	0.18	0	-	No	Yes
Y10-WC09-I	b	16	5	4/28/2014	11:17:46	6.5	14.492	4-3/>4	1	>4	>4 to 1	188.59	13.01	12.58	13.33	0.75	Physical	1.90	0.13	0	-	No	Yes
Y10-WC09-I	c	16	5	4/28/2014	11:18:38	6.5	14.492	>4	1	>4	>4 to 1	238.72	16.47	14.27	18.15	3.87	Physical	3.46	0.24	0	-	No	Yes
Y10-WC10-I	a	16	5	4/28/2014	11:58:32	7.9	14.492	3-2/>4-3	-1	>4	>4 to -1	173.66	11.98	11.56	12.27	0.70	Biogenic	8.93	0.62	0	-	No	No
Y10-WC10-I	b	16	5	4/28/2014	11:59:36	7.9	14.492	>4-3	-1	>4	>4 to -1	113.97	7.86	7.23	8.25	1.02	Biogenic	3.76	0.26	0	-	No	No
Y10-WC10-I	c	16	5	4/28/2014	12:00:47	7.9	14.492	3-2/>4-3	0	>4	>4 to 0	87.76	6.06	5.23	6.31	1.09	Physical	9.27	0.64	0	-	No	No
Y10-WC11-I	a	16	5	4/28/2014	11:35:05	6.7	14.492	>4	2	>4	>4 to 2	302.44	20.87	20.69	21.20	0.51	Physical	3.21	0.22	0	-	No	No

STATION	Rep	Stop Collar Settings (in.)	# of weights per chassis	DATE	TIME	Water Depth (ft)	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE (phi)	Penetration Area (sq.cm)	Average Penetration (cm)	Minimum Penetration (cm)	Maximum Penetration (cm)	Boundary Roughness (cm)	Origin of Boundary Roughness	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE present?	Low DO?
Y10-WC11-I	b	16	5	4/28/2014	11:36:18	6.7	14.492	>4	1	>4	>4 to 1	284.58	19.64	19.11	20.30	1.19	Biogenic	12.94	0.89	0	-	No	No
Y10-WC11-I	c	16	5	4/28/2014	11:37:36	6.7	14.492	>4	2	>4	>4 to 2	299.87	20.69	20.56	21.20	0.64	Physical	IND	0.00	0	-	No	Yes
Y10-WC12-I	a	16	5	4/28/2014	12:17:57	8.3	14.492	>4-3	-1	>4	>4 to -1	105.16	7.26	6.48	7.57	1.09	Biogenic	5.17	0.36	0	-	No	No
Y10-WC12-I	b	16	5	4/28/2014	12:18:57	8.3	14.492	3-2/>4-3	-1	>4	>4 to -1	163.38	11.27	10.67	11.64	0.97	Biogenic	3.49	0.24	0	-	No	No
Y10-WC12-I	c	16	5	4/28/2014	12:20:02	8.3	14.492	>4-3	-1	>4	>4 to -1	139.50	9.63	9.31	9.87	0.56	Biogenic	3.30	0.23	0	-	No	No
Y10-WC13-I	a	16	5	4/28/2014	11:08:24	7.6	14.492	>4	2	>4	>4 to 2	262.39	18.11	17.42	18.53	1.11	Physical	1.62	0.11	0	-	No	Yes
Y10-WC13-I	b	16	5	4/28/2014	11:09:29	7.6	14.492	>4	1	>4	>4 to 1	247.41	17.07	16.50	17.95	1.45	Physical	5.09	0.35	0	-	No	No
Y10-WC13-I	c	16	5	4/28/2014	11:10:28	7.6	14.492	>4	2	>4	>4 to 2	269.01	18.56	17.69	19.45	1.77	Physical	16.12	1.11	1	Reduced	No	No
Y10-WC14-I	a	16	5	4/28/2014	10:52:54	7.1	14.492	>4-3/>4	1	>4	>4 to 1	277.46	19.15	18.53	19.69	1.16	Biogenic	0.00	0.00	0	-	No	Yes
Y10-WC14-I	b	16	5	4/28/2014	10:53:49	7.1	14.492	>4-3/>4	1	>4	>4 to 1	IND	21.18	20.96	21.20	IND	Physical	0.00	0.00	0	-	No	Yes
Y10-WC14-I	c	16	5	4/28/2014	10:54:52	7.1	14.492	>4-3/>4	0	>4	>4 to 0	249.26	17.20	16.81	17.66	0.85	Physical	0.00	0.00	0	-	No	Yes

STATION	Rep	COMMENT	Benthic Habitat Classification	# of Feeding Voids	Void Minimum Depth (cm)	Void Maximu m Depth (cm)	Void Average Depth (cm)	Successional Stage	OSI
Y10-S15-I	a	Silty very fine sand. Fecal pellets in oxy sediment at SWI, aRPD discontinuous with a small patch of gray reduced sediment in contact with surface. Long worm tube in center and debris, including shell fragments and crustacean shell at SWI. Worms visible above burrows at left of profile. Two active, sediment-filled FVs at depth. Burrow open to surface and lined with fecal pellets toward right of profile. Bioturbation depth exceeds prism penetration depth.	Silty sand with infauna	2	4.91	6.87	5.89	Stage 1 on 3	6
Y10-S15-I	b	Silty fine sand with a thin layer of coarse sand containing a few pebbles and fecal pellets at surface. aRPD discontinuous, mostly toward right side with gray, reduced sediment in contact with surface. Minor debris in the form of bivalve shell fragments and a possible rock or large reduced mudclast toward right of profile. Small worms toward center of profile and a larger polychaete visible at 4.1 cm. Evidence of small burrows at SWI and deeper burrowing.	Silty sand with infauna	0	-	-	-	Stage 2 -> 3	1
Y10-S15-I	c	Silt with poorly sorted coarse sand and fecal pellets at surface. Organism tubes (one large) and debris, including bivalve shell fragments (and wood debris) visible. A semi-transparent organism (Anthozoan?) toward left of profile and a polychaete at SWI. A number of small worms and a larger subsurface worm visible at 3.6 cm. Evidence of small burrows toward SWI and deeper burrowing. Pit toward center of profile caused by prism pushing down on an object (shell?) formerly on sediment surface.	Sandy silt with infauna	0	-	-	-	Stage 2 -> 3	5
Y10-S17-I	a	Silt intermixed with very fine sand and small shell fragments. Three active FVs, one of which is sediment-filled. Evidence of small burrows toward SWI and deeper burrowing. Bits of sand/coarse sand at depth in patches.	Sandy silt with infauna	3	1.65	14.18	7.91	Stage 1 on 3	6
Y10-S17-I	b	Silt intermixed with very fine sand and small shell fragments. aRPD not continuous with oxidized sediment toward right of profile and grey, reduced sediment in contact with surface; appears disturbed by camera frame from first replicate. An old organism tube and a large piece of bright debris at SWI. At least five worms (two long) visible. Three active FVs . Evidence of small burrows toward SWI and deeper burrowing. Bits of sand at depth.	Sandy silt with infauna	3	0.41	13.33	6.87	Stage 1 on 3	6
Y10-S17-I	c	A layer of silty fine sand, containing fecal pellets over silt intermixed with small shell fragments. aRPD patchy, some grey reduced sediment in contact with surface. A large burrow lined with sand and fecal pellets toward right of profile. Benthic microalgal growth (orange/rust) at SWI, with small denser patches toward right of profile. Three small active FVs, as well as smaller burrows present. Few thin subsurface worms and a large shell fragment toward bottom-right of profile visible.	Sandy silt with infauna	3	1.11	7.31	4.21	Stage 1 on 3	6
Y10-S19-I	a	Silt intermixed with fine sand and fecal pellets at SWI over a layer of silty fine to meduim sand at depth. Organism tubes and small patches of benthic microalgae (orange/rust) at SWI. Two active FV toward left of profile and thin worms visible. Evidence of small burrows toward SWI and deeper burrowing.	Sandy silt with infauna	2	5.47	11.35	8.41	Stage 1 on 3	6
Y10-S19-I	b	Silty very fine sand intermixed fecal pellets at SWI over layer of silt clay over silty sand at depth. Bits of /coarse sand at depth in patches. Patches of benthic microalgae (orange/rust) and two small oxidized mudclasts at SWI. Large colorful worm at 8.0 cm and a large burrow extending down length of right-side of profile. Two active FVs (one sediment-filled).	Sandy silt with infauna	2	7.28	16.95	12.11	Stage 1 on 3	6
Y10-S19-I	c	Silty very fine sand and fecal pellets at SWI. Sand/coarse sand at depth in patches. Some benthic microalgae (orange/rust) at SWI. A number of thin worms visible. Divot toward left of profile, possibly caused by camera. One small active FV near SWI.	Sandy silt with infauna	1	0.70	0.94	0.82	Stage 1 on 3	6
Y10-S24-I	a	Layer of poorly sorted fine to medium sand with interstitial fines over a silt-sand mixture. One large organism tube visible in background. Thin worms and few burrows near SWI visible. One active FV and evidence of a burrow at depth.	Silty sand with infauna	1	6.58	7.21	6.90	Stage 1 on 3	6
Y10-S24-I	b	Layer of poorly sorted fine to medium sand with interstitial fines and fecal pellets over a silt-sand mixture. aRPD is patchy and thin. Debris, including shell fragments and a few oxidized mudclasts present. A number of thin worms and two larger polychaetes visible.	Silty sand with infauna	0	-	-	-	Stage 2 -> 3	5
Y10-S24-I	c	Layer of poorly sorted fine to medium sand with interstitial fines and fecal pellets over a silt-sand mixture. aRPD is thin. A number of thin worms and polychaetes at depth visible. Evidence of burrowing present.	Silty sand with infauna	0	-	-	-	Stage 2 -> 3	5
Y10-WC01B-I	a	Thin layer of fecal pellets over a fine sand-silt mixture. Some oxygenated sediment particles, no aRPD. High density of fecal-pellet encrusted capitellid tubes at the SWI (probably Mediomastus). Small patches and strings of Beggiatoa visible at SWI. Ulva (one piece dragged down by camera); classic Stage 1 assemblage in response to organic over-enrichment.	Sandy silt with infauna - organic rich, beggiatoa	4	10.45	13.31	11.88	Stage 1	-3
Y10-WC01B-I	b	Thin layer of fecal pellets over a fine sand-silt mixture with some oxygenated sediment particles, no aRPD. Medimastus tubes covered in fecal pellets, debris in the form of wood fragments, seaweed, and some Beggiatoa strings visible at SWI. Evidence of burrowing near SWI and at depth. Numerous capitellids throughout profile. Network of active burrows and voids from this Stage 1 assemblage.	Sandy silt with infauna - organic rich, beggiatoa	4	0.75	12.39	6.57	Stage 1	-3
Y10-WC01B-I	c	Thin layer of fecal pellets over a fine sand-silt mixture. aRPD very thin and discontinuous toward right of profile. Medimastus tubes covered in fecal pellets, debris in the form of wood fragments, seaweed, and Beggiatoa strings visible at SWI. Thin worms and a larger polychaete toward center of profile.	Sandy silt with infauna - organic rich, beggiatoa	1	8.78	12.58	10.68	Stage 1	-2
Y10-WC02-I	a	Layer of fecal pellets over a fine sand-silt mixture. No aRPD. Thick patches of Beggiatoa (some dragged down by camera) and large capitellid tubes covered in fecal pellets visible at SWI. Microalgal growth (green) and organic debris in the form of a leaf and kelp? at SWI. A decaying piece of seaweed dragged down by camera toward left of profile. Large capitellids visible throughout profile	Sandy silt with infauna - organic rich, beggiatoa	5	1.94	13.09	7.51	Stage 1	-3
Y10-WC02-I	b	Thin layer of fecal pellets over a fine sand-silt mixture. Some oxygenated sediment particles, no aRPD. Thick patches of Beggiatoa (some dragged down by camera) and large capitellid tubes covered in beggiatoa visible at SWI. Microalgal growth (green), seaweed, and organic debris in the form of a leaves and wood fragments at SWI; very similar to previous image -- classic organic over-enrichment	Sandy silt with infauna - organic rich, beggiatoa	0	-	-	-	Stage 1	-3
Y10-WC02-I	c	similar to previous 2 reps: wood debris, dense thiophilic bacterial mat, huge capitellid worms at relatively high density -- very labile organics in sediment	Sandy silt with infauna - organic rich, beggiatoa	0	-	-	-	Stage 1	-3
Y10-WC03-I	a	Thin layer of medium sand grading down to a fine sand-silt mixture with patches of coarser sand at depth. Benthic macroalgal growth (orange/rust) at SWI. Small, thin, subsurface worms visible near SWI. One active FV at depth and evidence of deeper burrowing visible.	Sandy silt with infauna	1	8.08	9.36	8.72	Stage 2 on 3	7
Y10-WC03-I	b	Thin layer of silty fine to medium sand and fecal pellets over a fine sand-silt mixture. Benthic macroalgal growth (orange/rust), a small organism tube, and reduced sediment toward right of profile at SWI. Long burrow lined with medium sand toward left of profile. Thin worms visible. Pit and void extending from SWI through the bottom of profile caused by an object dragged down by camera prism.	Sandy silt with infauna	0	-	-	-	Stage 2 -> 3	5
Y10-WC03-I	c	Thin layer of poorly sorted, fine to coarse sand mixed with fecal pellets over silt. aRPD thin and patchy. Benthic macroalgal growth (orange/rust) at SWI. Large burrow filled with sand and oxygenated sediment at center of profile with an active FV. Small, thin worms visible at depth.	Sandy silt with infauna	1	2.18	2.93	2.55	Stage 2 -> 3	5

STATION	Rep	COMMENT	Benthic Habitat Classification	# of Feeding Voids	Void Minimum Depth (cm)	Void Maximu m Depth (cm)	Void Average Depth (cm)	Successional Stage	OSI
Y10-WC04-I	a	Fine sand-silt mixture with fecal pellets at surface. aRPD patchy. Benthic macroalgal growth (orange/rust) at SWI. Large rock or debris and a few small (old?) organism tubes in background at SWI. Burrow with oxygenated sediment and two sediment-filled, active FVs toward center of profile. Few large annelids visible. Evidence of smaller burrows near SWI.	Sandy silt with infauna	2	2.47	11.66	7.07	Stage 1 on 3	6
Y10-WC04-I	b	Fine sand-silt mixture with disc-shaped fecal pellets at surface. aRPD patchy. Benthic macroalgal growth (orange/rust) and organism tubes at SWI. Toward center-left of profile a biogenic mound over a large burrow filled with oxygenated sediment and fecal pellets. Small, thin worms visible throughout profile.	Sandy silt with infauna	0	-	-	-	Stage 2	4
Y10-WC04-I	c	Fine sand-silt mixture with fecal pellets at surface. aRPD discontinuous and patchy, some grey, reduced sediment in contact with surface. A number of old Mediomastus tubes covered in fecal pellets (some connecting to subsurface burrows filled with fecal pellets) at SWI. Benthic macroalgal growth (orange/rust) at SWI. Thin worms and a larger polychaete at 4.2 cm visible.	Sandy silt with infauna	1	8.23	8.52	8.37	Stage 1	-2
Y10-WC05-I	a	Fine sand-silt/clay mixture. Some oxygenated sediment particles at burrow openings, no aRPD. visible. At least three large worms (polychaetes) and two active FVs (one sediment-filled) at depth. One large burrow artifact created by prism dragging down wood chip with oxygenated sediment . Thinner burrow with some oxygenated sediment and a polychaete toward left-side of profile. All worms appear to be large capitellids	Sandy silt with infauna	2	13.40	17.03	15.22	Stage 1	-3
Y10-WC05-I	b	Overpenetrated. Fine sand-silt mixture with a layer of fecal pellets at SWI and a small patch of fine to medium sand at depth. Some oxygenated sediment particles, no aRPD. An old organism tube at SWI. Evidence of burrows at SWI and at depth. A number of worms (capitellids) visible, including a polychaete at 3.8 cm. Two active FVs (one sediment-filled at depth).	Sandy silt with infauna	2	IND	15.15	IND	Stage 1	-3
Y10-WC05-I	c	Fine sand-silt mixture with round fecal pellets at surface. No RPD. Grey sed particles, high oxy demand above oxygenated sediment. Mediomastus tubes covered in fecal pellets and other debris at SWI. A number of capitellids visible, including a large one at 4.9 cm. Evidence of burrowing at SWI as well as deeper burrowing. Network of burrows and large active FVs at depth containing organisms.	Sandy silt with infauna	2	11.52	19.23	15.38	Stage 1	-3
Y10-WC06-I	a	Fine to medium sandy silt with fecal pellets grading down to silt. Thin and patchy aRPD, not continuous toward left of profile. Thin worms visible and some burrowing in upper cm. Small patches of benthic microalgal growth (orange/rust) at SWI.	Sandy silt with infauna	0	-	-	-	Stage 1	2
Y10-WC06-I	b	Silt with fine sand and fecal pellets at surface. aRPD patchy toward left of profile, some grey sediment in contact with surface. Dense patches of benthic microalgal growth (orange/rust) at SWI. Semi-large burrow filled with oxidized fecal pellets at right of profile. Few thin worms visible.	Sandy silt with infauna	0	-	-	-	Stage 1 -> 2	3
Y10-WC06-I	c	Thin layer of fecal pellets over silt with some fine sand. aRPD not continuous toward left of profile, grey sed with high oxy demand in contact with surface. Some benthic microalgal growth (orange/rust) at SWI. Two active FVs with oxidized fecal pellets (one connected to a burrow containing oxidized and reduced fecal pellets). Few thin worms visible and a larger polychaete near SWI at left of profile.	Sandy silt with infauna	2	1.89	10.77	6.33	Stage 1 on 3	6
Y10-WC07-I	a	Fine sand-silt mixture with some fecal pellets at surface. aRPD very patchy and not continuous, traces of Beggiatoa visible. Some benthic microalgal growth (orange/rust) on oxygenated sediment at surface. Organism tubes and other debris visible. Thin worms and evidence of burrowing at SWI as well as at depth. Large burrow extending from SWI to bottom of profile with an active FV in center of profile. Possible organism at SWI on left-side of profile.	Sandy silt with infauna	1	7.67	9.24	8.46	Stage 1 on 3	2
Y10-WC07-I	b	Fine sand-silt mixture grading down to silt. aRPD diffusional to non-existent with high oxy demand above oxygenated sediment. Debris and Mediomastus tubes covered in fecal pellets present. Some debris possibly pushed down by camera prism. Evidence of burrowing and at least five large capitellids visible against faceplate.	Sandy silt with infauna	1	10.94	15.12	13.03	Stage 1	-3
Y10-WC07-I	c	Fine sand-silt mixture with some fine to medium sand at depth. A piece of wood debris flipped up @ SWI to give appearance of overpenetration in center. Evidence of burrowing and thin capitellids visible. Organism tubes and a subsurface shell fragment present.	Sandy silt with infauna	0	-	-	-	Stage 1	-3
Y10-WC08-I	a	Fine sand-silt mixture with oxidized fecal pellets at surface. aRPD thin and patchy with some grey sed (high oxy demand) in contact with surface. Benthic microalgal growth (orange/rust) at SWI. Capitellid tubes and other debris (leaf?) visible. Evidence of burrowing toward top of profile, thin worms, and two active FVs present.	Sandy silt with infauna	2	3.99	15.07	9.53	Stage 1	-2
Y10-WC08-I	b	Fine sand-silt mixture with fecal pellets at surface. aRPD very patchy with a layer of reduced sediment particles in contact with the surface. Benthic microalgal growth (orange/rust) at SWI. Network of burrows with coarse sand/pebbles and four active FVs in center of profile. One FV filled with oxidized sediment and the other three FVs are either lined with sand or fecal pellets. Large polychaete at 14 cm, right of large FV. Other thin worms, an active FV, and evidence of burrowing near SWI.	Sandy silt with infauna	5	0.80	14.40	7.60	Stage 1 on 3	2
Y10-WC08-I	c	Fine sand-silt mixture with fecal pellets at surface. aRPD patchy toward right of profile. Reduced mudclast with medium/coarse sand toward left of profile, artifact from camera sled. Dense patches of benthic microalgal growth (orange/rust) at SWI. Three active FVs at depth and evidence of burrows (one with oxidized sediment) visible. Thin capitellids visible throughout profile.	Sandy silt with infauna	3	6.97	16.04	11.50	Stage 1	2
Y10-WC09-I	a	Fine sand-silt mixture with fecal pellets at surface. Very thin aRPD with some grey sed with high oxy demand in contact with surface. Small dense patches of benthic microalgal growth (orange/rust) and a small oxidized mudclast at SWI. Few capitellid tubes in background above SWI and evidence of burrows in upper cms of profile. Thin worms present throughout profile and two larger subsurface polychaetes toward right-side of SWI.	Sandy silt with infauna	0	-	-	-	Stage 1	-2
Y10-WC09-I	b	Thin layer of reduced and oxidized fecal pellets over a fine sand-silt mixture. Very thin aRPD with some grey sed with high oxy demand in contact with surface toward left of profile. Some benthic microalgal growth (orange/rust), a small organism tube, and other debris at SWI. Evidence of burrows in upper cms of profile and thin capitellids present throughout profile.	Sandy silt with infauna	0	-	-	-	Stage 1	-2
Y10-WC09-I	c	Thin layer of reduced and oxidized fecal pellets over a fine sand-silt mixture. Thin aRPD with some grey sed with high oxy demand in contact with surface toward left of profile. Sediment steeply slopes to either side of profile at surface, forming a mound shape. A dense patch of benthic microalgal growth (orange/rust) at SWI. Evidence of burrows filled with oxidized sediment and fecal pellets. Few small worm tubes and capitellids visible.	Sandy silt with infauna	0	-	-	-	Stage 1	-2
Y10-WC10-I	a	Layer of fine to coarse sand over a silt-sand mixture. One large worm tube and a bit of benthic microalgae (orange/rust) at SWI. Two long burrows filled with oxidized sediment and fine sand visible. Thin captiellids present.	Silty sand with infauna	0	-	-	-	Stage 2 -> 3	5
Y10-WC10-I	b	Silt-sand mixture with patches of fine/medium sand at depth. Patchy aRPD. Wood debris, few small shell fragments and seaweed? at SWI. One active FV at depth, evidence of burrowing, and a polychaete at 2.6 cm. Small worm tubes and large burrow opening visible in background.	Silty sand with infauna	1	6.73	6.94	6.83	Stage 1 on 3	6
Y10-WC10-I	c	Shallow penetration. Layer of fine to coarse sand over a silt-sand mixture. aRPD patchy. A bit of benthic microalgae (orange/rust) at SWI and dragged down seaweed pieces. Small organism tubes visible. Evidence of burrowing.	Silty sand with infauna	0	-	-	-	Stage 2	4
Y10-WC11-I	a	Slightly overpenetrated. Silt with some intermixed fine sand and small shell fragments. aRPD thin toward left of profile. Benthic microalgal growth (orange/rust) at SWI. Evidence of burrows with oxidized sediment in top half of profile and thin capitellids present.	Sandy silt with infauna	2	12.19	17.32	14.76	Stage 1	2

STATION	Rep	COMMENT	Benthic Habitat Classification	# of Feeding Voids	Void Minimum Depth (cm)	Void Maximum Depth (cm)	Void Average Depth (cm)	Successional Stage	OSI
Y10-WC11-I	b	Fine sand-silt mixture. aRPD patchy toward right side of profile with a bit of grey sed (high oxy demand) in contact with surface. Dense patches of benthic microalgal growth (orange/rust) at SWI. Thin capitellids and four FVs, including two active (one sediment-filled) FVs and two inactive, sediment/sand-filled FVs present. Evidence of burrowing at depth	Sandy silt with infauna	4	8.06	19.72	13.89	Stage 1 on 3	7
Y10-WC11-I	c	Overpenetrated on left-side of profile. Silt with some intermixed fine sand and small shell fragments. Some oxygenated sediment patches, no aRPD. Large burrow with loose oxygenated sediment toward left of profile, burrowing opening not visible. One active FV at depth toward right of profile. Thin capitellids visible.	Sandy silt with infauna	1	16.77	17.76	17.26	Stage 1	-3
Y10-WC12-I	a	Fine sand-silt mixture with a patch of medium to coarse sand at depth toward right of profile. Some benthic microalgal growth (orange/rust) at SWI. Distinct burrow with an organism at 3.1 cm toward center-left of profile. Another large burrow with very coarse sand toward center-right of profile. Three active FVs. Worm tubes at SWI and thin subsurface worms visible.	Sandy silt with infauna	3	1.74	6.15	3.94	Stage 1 on 3	6
Y10-WC12-I	b	Layer of fine to coarse sand and some round fecal pellets over a sand-silt mixture. Thin aRPD, oxidized sediment particles over sand. Small worm tubes and minor debris visible at SWI. Large (biogenic) mound in background. Two large worms toward left of profile and thin worms visible. One small active FV and evidence of burrowing at depth.	Silty sand with infauna	1	7.45	8.01	7.73	Stage 1 on 3	6
Y10-WC12-I	c	Sand-silt mixture with some medium to coarse sand at the SWI and at depth toward right of profile. Thin aRPD. A small dense patch of benthic microalgae (orange/rust) at SWI. Evidence of burrowing in top few cms and thin capitellids visible.	Sandy silt with infauna	0	-	-	-	Stage 2	4
Y10-WC13-I	a	Fine sand-silt mixture with few fecal pellets at surface. aRPD very thin and patchy, some suspended oxidized sediment particles. Few small capitellid tubes at surface. Organically enriched.	Sandy silt with infauna	0	-	-	-	Stage 1	-2
Y10-WC13-I	b	Fine sand-silt mixture with few fecal pellets at surface and a patch of sand at depth. aRPD patchy and mound of reduced pellets from deposit feeders at depth at SWI on right. Thin capitellids present. Evidence of burrowing and two active FVs near SWI. One inactive, sediment-filled FV at depth.	Sandy silt with infauna	3	0.41	12.12	6.27	Stage 1 on 3	6
Y10-WC13-I	c	Fine sand-silt mixture with fecal pellets at surface. aRPD patchy. Large reduced mudclast at SWIis an artifact from camera. Large organic debris visible at surface. Thin worms and burrows with oxidized sediment visible near SWI and at depth. Two sediment-filled FVs, one active and one inactive present. Llarge burrow sediment at right of profile and worm visible at 7.1 cm near right-side of profile.	Sandy silt with infauna	2	8.27	17.93	13.10	Stage 1 on 3	7
Y10-WC14-I	a	Fine sand-silt mixture with fecal pellets at surface and patches of fine sand at depth. Some oxygenated sediment particles, essentially no aRPD. Mediomastus tubes covered in fecal pellets at surface. Three large polychaetes and a very large subsurface organism present in top half of profile. Two active FVs present and evidence of burrowing.	Sandy silt with infauna	2	2.54	14.66	8.60	Stage 1	-3
Y10-WC14-I	b	Overpenetrated except for center area. Fine sand-silt mixture with few fecal pellets at surface. Some oxygenated sediment particles, essentially no aRPD. Capitellid tubes at surface. Few large polychaetes visible in top half of profile. Evidence of burrowing at depth.	Sandy silt with infauna	2	IND	IND	IND	Stage 1	-3
Y10-WC14-I	c	Fine sand-silt mixture with fecal pellets and fine to medium sand at surface. Some oxygenated sediment particles, no aRPD. Capitellid tubes and some seaweed at surface. Long burrow with opening at SWI toward center-left of profile. A number of large and small capitellids visible throughout profile. Two active FVs (one sediment-filled) at depth.	Sandy silt with infauna	2	14.32	16.65	15.48	Stage 1	-3

APPENDIX F

DATA EVALUATION REPORTS

D.M.D., Inc.
Environmental & Toxicological Services
13706 SW Caster Road, Vashon, WA 98070-7428 (206) 463-6223 fax: (206) 463-4013

MEMORANDUM

TO: Matt Dalton (DOF)

FROM: Raleigh Farlow

DATE: June 17, 2014

SUBJECT: Review of Results of Analyses for Forty-one Sediments and Three Field Rinsate Blanks Collected during April and May 2014 from the Head of Thea Foss Waterway (Year-Ten Post-Construction Monitoring)

Forty-one (surficial, 2 and 10 cm depth, and core horizons) sediments and three field equipment rinsate samples were collected and submitted in four sample delivery groups to Analytical Resources Inc. (ARI) of Tukwila, Washington, for analyses of TOC (Plumb, 1981), TPH-Dx (NWTPHDx), metals (6010C & 7471A), SVOCs (8270D with GPC cleanup), 2,4-dimethylphenol by 8270-SIM, selected pesticides (8081/PSDDA with acid cleanup and S_x removal; includes analytes hexachlorobenzene [HCB] & hexachlorobutadiene [HCBD]), PCBs (8082 with silica gel and acid cleanups and S_x removal) and sediment grain size (PSEP for apparent grain size). Three sets (three pairs) of blind field duplicates were also submitted for analyses (RC-14 / RC-15 [0-2 cm]; WC-13 / WC-15 [0-10 cm] & WC-04-Cb3 / WC-15-CD [1.9-2.9']). Results of analyses (all dry weight normalized for sediments, as required) are attached to this summary. Samples were relinquished by Tetra Tech under chain-of-custody (C-O-C) procedure and "hand" delivered to ARI within 32.5 hours of collection. Samples were received intact at 1.0 – 13.4 °C, with ice present in all coolers. Four samples, WC-05, RC-05, WC-07 and RC-07 were received within 8 hours of collection at 13.4 °C. All other sediments were received at temperatures no more than 5.5 °C. This exception is not expected to adversely affect the integrity of samples due to the short duration in transit time. SVOC analyses were generally analyzed as extract dilutions due to an elevated background of an unresolved complex mixture (UCM) in the lube-range of hydrocarbons. This hydrocarbon background resulted in generally elevated reporting limits for extractable organic analytes, such as pesticides, PCB's, and SVOC analytes. All analyses were completed within the technical holding time requirements identified in the project QAPP (*Quality Assurance Project Plan (QAPP), Utilities Work Area Remediation,* prepared by DOF, DMD & Tetra Tech-FW, July 24, 2003) and/or within the recommended maximum holding times recommended by the U.S. EPA. Sample holding times/conditions are determined to be acceptable or within specification.

Reporting limits are generally sufficiently low for comparison to the project/task SQO's. Dilutions and reruns were frequently required for SVOC extracts due to elevated levels of organic hydrocarbons and to bring detected analyte concentrations within the instrumental linear calibration range. The reporting limit for 2,4-dimethylphenol is based on the method detection limit (MDL) achieved by method 8270-SIM, which is about 10x less than the lower quantitation limit (LOQ) reported for the same analyte by method 8270D. *(In general, analyte MDL's are 0.1 – 0.33x the LOQ's.)* Aroclor 1248 was generally reported with an elevated reporting limit, as nondetected, due to chemical interference. This chemical background also resulted in elevated nondetects (with associated "U" qualifier code) for DDE and DDT, up to as much as 17 µg/kg (ppb). Many extracts could not be concentrated to the normal volumes due to high viscosities and hydrocarbon backgrounds. Some samples exhibited presence of woody debris and/or oily sheen. SVOC parameters show a lower reporting limit of 19 - 1100 µg/kg; with the greatest LOQ associated with benzoic acid. [Normal] lower reporting limits for organics (with the exception of 2,4-dimethylphenol) are based on the lowest calibration point used to establish instrument linearities (the LOQ). Detections of organic analytes at less than the lower verifiable calibration point (LOQ) are qualified as estimates with the "J" qualifier code.

Method blanks were analyzed with each parameter group, with some delivery groups requiring several method blank runs due to multiple analyses of sample extracts. *bis*(2-Ethylhexyl)phthalate and diethylphthalate were frequently detected in method blanks at less than the lower reporting limit. The levels were not sufficiently elevated to affect reported sediment sample results. Diethylphthalate was not detected in sediment samples. Phenol was reported in a single method blank at approximately one-half the LOQ, and zinc was reported in method blanks at just above the MDL (not LOQ). No results required qualification due to sample detects being sufficiently elevated to overwhelm any contributions from analytical blanks. No data required qualification due to method blanks performance.

The three field equipment **rinsate blanks** showed (barely) detectable (less than LOQ's) contamination for a few target analytes. Detectable analytes include zinc, benzyl alcohol, diethylphthalate, *bis*(2-ethylhexyl)phthalate, and benzo(g,h,i)perylene. These levels were sufficiently low to not adversely impact reported results for the respective analytes.

All laboratory control sample (**LCS**) and matrix spike (**MS/MSD**) recoveries were within the QAPP-specified and/or laboratory acceptance ranges for all designated analytes (Aroclors 1016 and 1260 were substituted for the QAPP-specified Aroclor 1242 with the same specified acceptance range), with the following noted exceptions.

Parameter	Deviation (%Recovery)	Affected Group/Sample(s)
DDE, DDD, DDT (MS/MSD)	116 - 210 %	YI42 & YI43
HCBD (LCS_S)	54.5 %	YI42 & YI43
TOC (MS)	147 %	YI60
2,4-Dimethylphenol (MS/MSD)	8.1 %, 10.6 %	YI87

Rinsate blanks LCS and MS/MSD performances were all within acceptable ranges.

The DDT-suite of compounds (4,4'-DDE, 4,4'-DDD and 4,4'-DDT) showed apparent elevated recoveries in the MS/MSD performed on sample WC-14 (YI43F). Associated RPD's for the MS/MSD's ranged from 16% to 21%. Inspection of the raw data indicates the variabilities and elevated recoveries can be attributed to the chemical backgrounds observed on the instrumental chromatograms. This is also manifest in the generally elevated reporting limits for these analytes. Elevated baselines or chemical backgrounds have been a common observation for the chlorinated pesticides (DDT-suite) and some of the Aroclors (PCB's) for sediments from this monitoring program over the years. LCS recoveries for the DDT-suite of compounds are all within acceptable ranges. None of the DDT-suite of compounds is reported as detectable; with note, however, that the lower reporting limits are generally elevated (up to 17 µg/kg in WC-02) due to presence of chemical interferences or background. DDT degradation checks associated with reported results are determined to be within acceptable range. No results for the DDT-suite of compounds required further qualification.

The solid LCS (LCS_S associated with analytical groups YI42 and YI43) recovery for HCBD (hexachlorobutadiene) was reported slightly low, at 54.5%, relative to the acceptance range. The associated MS/MSD recoveries in WC-14 are within the acceptable range. No HCBD was detected in any site sediments, and no associated results required qualification.

The matrix spike (MS) recovery for TOC in sample WC-03 (YI60A) reported slightly high at 147%, with a native (non-spiked sample) RPD of 30%. This suggests some natural variability associated with sample heterogeneity. Batch-associated LCS's and the independent reference material (SRM) reported acceptable recoveries (98-115%). No TOC results required qualification due to recovery performance.

The sediment MS/MSD (WC-06-Ca3) measurement for 2,4-dimethylphenol showed consistently low recoveries by method 8270D (8.3% & 11.4%) and method 8270-SIM (8.1% & 10.6%). The LCS recoveries were acceptable at 68.7% and 64.9%, respectively. Chemical surrogate recoveries for all associated samples were within acceptable limits. No 2,4-dimethylphenol was detected in project sediments. The reported lower reporting limits or nondetects for 2,4-dimethylphenol in analytical group YI87 may be biased low due to lower-than-specified recoveries. It is noted that analytical group YI87 is associated with core horizons showing minimal to no detectable chemical contamination and thus not expected to reveal presence of any phenolic contamination. Results were not further qualified.

All **surrogate compound recoveries** (for organic analytes; SVOC's, pesticides, PCB's and TPHDx) are within the project-specified and/or laboratory acceptance ranges, with the exception of the TCMX (tetrachloro-*m*-xylene) surrogate for PCB's analyses for some samples in analytical groups YI42 and YI43. The deviant values were slightly less than the lower acceptance values, while the second surrogate, DCBP (decachlorobiphenyl), exhibited acceptable recoveries for the affected samples. Detected PCBs' (Aroclors 1254 and 1260) chemical characteristics are more representative of the DCBP surrogate as opposed to the TCMX surrogate. No additional qualification of organic parameter values is required.

Internal standards (**IS**) performance was determined to be within method specifications for reported results of organic analytes. Some extracts were reanalyzed in order to bring IS's performance within specification. Reported results in the attached table are associated with those analyses exhibiting acceptable IS's performances.

Initial and **continuing calibration** (ICAL and CCAL) performances were determined to be within method specifications and less than 20 RPD for all analyses, with the exception of continuing calibrations (CCAL's) associated with detected benzoic acid in WC-02, WC-04, WC-

08, WC-11, WC-13 and WC-15; and fluorene in RC-01, RC-02, RC-04, RC-05, RC-06, RC-07, RC-08, RC-09, RC-11, RC-12, RC-13, RC-14 and RC-15. Concentration values for the above analytes in the associated samples are required to be qualified as estimates with the "J" qualifier code. The CCAL's for total benzofluoranthenes in samples associated with analytical groups YI42 and YI60 exhibited an RPD of 20.5%. All other performance indicators for benzofluoranthenes were within acceptable limits. No qualification of results is required for total benzofluoranthenes. Pentachlorophenol (PCP) exhibited a CCAL RPD greater than (>) 20 in analytical groups YI42, YI43 and YI87, however, PCP was detected in only one project sediment (WC-02 detection at less than the LOQ that is already "J" qualified as an estimate). No additional qualification of PCP results is required. Hexachlorobutadiene (HCBD) typically exhibited out-of-specification CCAL's, however, HCBD was nondetectable at the LOQ; thus, data qualification is not required. DDT degradation checks for all analytical groups were within acceptable limits.

Examination of **TPH-Dx** profiles revealed the presence of principally lubricant-range hydrocarbons, and minimal diesel-range hydrocarbons. The values reported by the analyst/laboratory for diesel-range hydrocarbons are due principally to the chromatographic overlap associated with lubricant hydrocarbons. The lube-range profile exhibits an unresolved complex mixture (UCM) typical of contamination from urban runoff containing motor oil and/or petroleum-based lubricants. All samples exhibited near identical profiles in the lubricant range characterized with centroid at slightly less than SAE 30 weight petroleum-based motor oil. Total hydrocarbons are most represented by the lube-range values, and are thus highlighted in bold in the attached results table.

All chromatograms were inspected to evaluate general chromatographic integrity. Peak shapes are reasonable and acceptable, and no abrupt baseline shifts are noted. Aroclor 1260 result in RC-13 and hexachlorobenzene (HCB) in WC-05 are reported as estimates ("J" qualifier code) due to slightly elevated variability (> 40 percent difference) in responses exhibited between the two gas chromatographic columns. Chlorinated pesticides (DDT-suite) and principally Aroclor 1248 (occasionally Aroclor 1232 and Aroclor 1242) showed chemical interferences and elevated baselines that result in an elevation of the lower reporting limits (LOQ) due to interferences. Benzyl alcohol identification in analytical groups YI42 and YI43 was performed by manual interpretation by the analyst, as opposed to an automated determination, due to interferences. The presence of chemical interferences requires the qualification of benzyl alcohol detections with the "J" qualifier code as estimates for WC-02, WC-04, WC-09, WC-11, WC-12, WC-13, WC-14 and WC-15.

Monitoring variability determined by comparison of results reported for the three sets of blind field duplicates typically shows an average of less than 25 RPD (relative percent difference) and as much as 55 RPD in the pair RC-14 / RC-15 for pyrene. Grain size (particle size distribution) analyses exhibited relatively consistent agreement with small variability for the duplicate pairs.

Replicate analyses for grain size distribution determinations revealed a variability of less than 10 % coefficient of variation associated with the clay fraction (particle mean diameters of 1-2 µm). All other fractions revealed less variability. Seven samples (WC-01B-Ca3, WC-04-Cb3, WC-15-CD, WC-05-Ca3, WC-06-Ca3, WC-10-Cb3 and WC-12-Cb3; all subsurface core sections) in delivery group YI87 had insufficient amounts of fine-grained material to allow the performance of the pipette portion of the measurement.

Sample results reported here are determined to be in general compliance with method and QAPP requirements. Some deviations from specified performance goals are associated with matrix effects from contaminated samples. Sample extracts/digestates were rerun/reanalyzed when QC performance goals were not initially met. All reported data are considered usable for the intended purposes of the project.

Head of Thea Foss Waterway
Post-Construction Monitoring
April/May 2014 - Year 10

metals - mg/kg, dry
organics - µg/kg, dry

Field I.D.	Comments	Sample Date	Lab I.D.	% solids	% TOC	TPH-Dx (mg/kg) Diesel-range	TPH-Dx (mg/kg) Lube-range	Pb 7439-92-1	Hg 7439-97-6	Zn 7440-66-6
RC-01 (0-2)	0-2 cm surficial	4/30/2014	148334-YI60M	46	9.1	660	**3300**	**92**	**0.11**	**275**
WC-01 (0-10)	0-10 cm surficial	4/30/2014	148324-YI60C	58	5.7	540	**2800**	**115**	**0.09**	**212**
WC-01B-Ca3	core, 2.4-3.4'	5/1/2014	148501-YI87B	82	0.40			2 U	0.03 U	**32**
RC-02 (0-2)	0-2 cm surficial	4/29/2014	148247-YI42C	33		1500	**6700**	**130**	**0.17**	**470**
WC-02 (0-10)	0-10 cm surficial	4/29/2014	148245-YI42A	34		1200	**5600**	**116**	**0.21**	**428**
RC-03 (0-2)	0-2 cm surficial	4/30/2014	148332-YI60K	64	3.1	240	**1200**	**28**	**0.06**	**104**
WC-03 (0-10)	0-10 cm surficial	4/30/2014	148322-YI60A	73	2.6	88	**430**	**19**	**0.04**	**79**
RC-04 (0-2)	0-2 cm surficial	4/29/2014	148248-YI42D	42		900	**4800**	**107**	**0.20**	**342**
WC-04 (0-10)	0-10 cm surficial	4/29/2014	148246-YI42B	49		760	**3900**	**77**	**0.16**	**237**
WC-04-Cb3	core, 1.9-2.9'	5/1/2014	148504-YI87E	87	0.22			2 U	0.03 U	**41**
WC-15-CD	field dup. of WC-12-Cb3	5/1/2014	148503-YI87D	88	0.19			2 U	0.02 U	**35**
RC-05 (0-2)	0-2 cm surficial	4/30/2014	148339-YI60R	37	5.4	1200	**5900**	**111**	**0.20**	**375**
WC-05 (0-10)	0-10 cm surficial	4/30/2014	148328-YI60G	40	6.5	1000	**4400**	**110**	**0.24**	**347**
WC-05-Ca3	core, 2.7-3.7'	5/1/2014	148506-YI87G	84	0.19			2 U	0.02 U	**37**
RC-06 (0-2)	0-2 cm surficial	4/30/2014	148333-YI60L	35	5.5	890	**4200**	**117**	**0.21**	**358**
WC-06 (0-10)	0-10 cm surficial	4/30/2014	148323-YI60B	42	0.99	640	**3000**	**111**	**0.20**	**315**
WC-06-Ca3	core, 1.6-2.6'	5/1/2014	148500-YI87A	83	0.21			2 U	0.03 U	**36**
RC-07 (0-2)	0-2 cm surficial	4/30/2014	148338-YI60Q	42	3.8	870	**3900**	**101**	**0.18**	**353**
WC-07 (0-10)	0-10 cm surficial	4/30/2014	148327-YI60F	43	3.8	1100	**3500**	**101**	**0.17**	**301**
RC-08 (0-2)	0-2 cm surficial	4/29/2014	148260-YI43K	43	5.0	810	**3900**	**99**	**0.18**	**288**
WC-08 (0-10)	0-10 cm surficial	4/29/2014	148250-YI43A	45	5.6	680	**3600**	**98**	**0.24**	**291**
RC-09 (0-2)	0-2 cm surficial	4/29/2014	148258-YI43I	42	3.7	880	**4400**	**101**	**0.18**	**293**
WC-09 (0-10)	0-10 cm surficial	4/29/2014	148252-YI43C	44	4.2	780	**4300**	**104**	**0.22**	**311**
RC-10 (0-2)	0-2 cm surficial	4/30/2014	148340-YI60S	70	1.7	170	**820**	**28**	**0.08**	**87**
WC-10 (0-10)	0-10 cm surficial	4/30/2014	148331-YI60J	84	1.6	110	**540**	**19**	**0.04**	**64**
WC-10-Cb3	core, 2.9-3.8'	5/1/2014	148505-YI87F	88	0.16			2 U	0.02 U	**36**
RC-11 (0-2)	0-2 cm surficial	4/29/2014	148259-YI43J	35	5.1	940	**4600**	**124**	**0.47**	**332**
WC-11 (0-10)	0-10 cm surficial	4/29/2014	148251-YI43B	37	4.9	900	**4400**	**117**	**0.27**	**317**
RC-12 (0-2)	0-2 cm surficial	4/29/2014	148257-YI43H	46	3.1	530	**2400**	**87**	**0.22**	**217**
WC-12 (0-10)	0-10 cm surficial	4/29/2014	148256-YI43G	52	3.2	490	**2400**	**70**	**0.20**	**187**
WC-12-Cb3	core, 1.6-2.4'	5/1/2014	148502-YI87C	85	0.21			**2**	0.02 U	35
RC-13 (0-2)	0-2 cm surficial	4/30/2014	148335-YI60N	41	3.6	920	**3700**	**103**	**0.20**	**320**
WC-13 (0-10)	0-10 cm surficial	4/29/2014	148253-YI43D	44	3.5	590	**3200**	**87**	**0.22**	**247**
WC-15 (0-10)	field dup. of WC-13 (0-10)	4/29/2014	148254-YI43E	45	3.1	670	**3400**	**88**	**0.19**	**252**
RC-14 (0-2)	0-2 cm surficial	4/30/2014	148336-YI60O	46	2.1	890	**3800**	**76**	**0.20**	**283**
RC-15 (0-2)	field dup. of RC-14 (0-2)	4/30/2014	148337-YI60P	46	3.6	860	**3600**	**98**	**0.11**	**295**
WC-14 (0-10)	0-10 cm surficial	4/29/2014	148255-YI43F	55	3.9	650	**3300**	**62**	**0.13**	**211**
SC-01 (0-10)	0-10 cm surficial	4/30/2014	148329-YI60H	79	1.6	120	**620**	**32**	**0.03**	**101**
SC-02 (0-10)	0-10 cm surficial	4/30/2014	148330-YI60I	63	3.4	480	**2500**	**83**	**0.10**	**231**
SC-03 (0-10)	0-10 cm surficial	4/30/2014	148325-YI60D	52	3.3	580	**2900**	**92**	**0.12**	**273**
SC-04 (0-10)	0-10 cm surficial	4/30/2014	148326-YI60E	66	3.4	240	**1000**	**41**	**0.06**	**122**
RB-01	field rinsate blank - H_2O	4/29/2014	148249-YI42E	-		0.10 U	0.20 U	0.02 U	0.0001 U	0.01 U
RB-02	field rinsate blank - H_2O	4/30/2014	148341-YI60T	-		0.10 U	0.20 U	0.02 U	0.0001 U	**0.002 J**
RB-03	field rinsate blank - H_2O	5/2/2014	148507-YI87H	-				0.02 U	0.0001 U	0.01 U

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organics - µg/kg, dry

Field I.D.	% gravel > 2000 µm	% v. coarse sand 1000-2000 µm	% coarse sand 500-1000 µm	% med. sand 250-500 µm	% fine sand 125-250 µm	% v. fine sand 62-125 µm	% silt 3.9-62.5 µm	% clay < 3.9 µm	% fines < 62.5 µm	Phenol 108-95-2	1,3-Dichloro-benzene 541-73-1	1,4-Dichloro-benzene 106-46-7	Benzyl alcohol 100-51-6	1,2-Dichloro-benzene 95-50-1	2-Methyl-phenol 95-48-7
RC-01 (0-2)	16.3	7.5	8.2	14.2	11.4	8.1	23.9	10.3	34.2						
WC-01 (0-10)	8.7	5.6	8.2	23.9	14.6	8.4	23.2	7.4	30.6	**340**	69 U	69 U	**280**	69 U	69 U
WC-01B-Ca3	29.3	17.1	18.4	20.2	10.3	1.3	-	-	3.5	20 U	20 U	20 U	20 U	20 U	20 U
RC-02 (0-2)															
WC-02 (0-10)										**420**	150 U	150 U	**380 J**	150 U	150 U
RC-03 (0-2)	0.6	6.5	13.5	25.3	23.5	8.8	14.2	7.6	21.8						
WC-03 (0-10)	7.0	6.1	14.0	30.6	24.2	6.8	7.2	4.2	11.4	**65**	56 U	56 U	56 U	56 U	56 U
RC-04 (0-2)															
WC-04 (0-10)										**280**	82 U	82 U	**130 J**	82 U	82 U
WC-04-Cb3	23.2	23.2	20.7	20.6	9.1	1.5	-	-	1.7	19 U	19 U	19 U	19 U	19 U	19 U
WC-15-CD	25.0	19.8	21.2	20.7	9.6	1.5	-	-	2.1	19 U	19 U	19 U	19 U	19 U	19 U
RC-05 (0-2)	2.6	2.8	3.9	6.3	8.8	8.5	52.6	14.4	67.0						
WC-05 (0-10)	1.1	2.3	3.9	8.0	11.3	9.7	49.2	14.3	63.5	**420**	110 U	110 U	**310**	110 U	110 U
WC-05-Ca3	25.8	17.9	18.9	23.6	11.2	1.5	-	-	1.0	19 U	19 U	19 U	19 U	19 U	19 U
RC-06 (0-2)	4.7	1.8	2.1	5.0	6.0	6.2	65.9	8.3	74.2						
WC-06 (0-10)	0.3	1.8	2.9	7.1	11.1	6.6	58.8	11.4	70.2	**470**	97 U	97 U	**160**	97 U	97 U
WC-06-Ca3	16.8	19.1	22.8	27.2	11.2	1.4	-	-	1.6	19 U	19 U	19 U	19 U	19 U	19 U
RC-07 (0-2)	2.7	4.6	6.9	15.1	13.4	6.9	40.6	9.9	50.5						
WC-07 (0-10)	3.1	4.4	7.1	15.5	13.9	6.7	36.8	12.5	49.3	**380**	85 U	85 U	**180**	85 U	**85**
RC-08 (0-2)	0.7	4.2	7.1	12.6	10.9	7.6	42.7	14.1	56.8						
WC-08 (0-10)	0.6	3.1	7.2	14.5	11.4	7.7	42.5	13.4	55.8	**370**	99 U	99 U	**89 J**	99 U	99 U
RC-09 (0-2)	0.4	1.5	4.1	13.4	13.5	7.5	45.5	14.2	59.7						
WC-09 (0-10)	0.2	1.7	3.0	10.4	11.7	8.0	49.5	15.5	65.0	**230**	110 U	110 U	**110 J**	110 U	110 U
RC-10 (0-2)	24.2	8.8	14.9	18.6	12.9	3.6	9.7	7.4	17.1						
WC-10 (0-10)	49.1	10.9	11.4	11.0	6.6	1.8	5.3	3.7	9.0	56 U	56 U	56 U	56 U	56 U	56 U
WC-10-Cb3	37.0	19.1	17.3	17.5	7.2	0.5	-	-	1.4	19 U	19 U	19 U	19 U	19 U	19 U
RC-11 (0-2)	17.5	2.0	2.9	4.3	3.8	4.3	49.3	16.0	65.3						
WC-11 (0-10)	5.1	2.5	3.5	5.1	4.7	4.9	58.9	15.3	74.2	**360**	130 U	130 U	**150 J**	130 U	130 U
RC-12 (0-2)	0.2	3.4	7.7	13.6	8.8	5.0	43.3	17.9	61.2						
WC-12 (0-10)	4.4	5.8	11.6	16.6	8.4	4.2	33.7	15.3	49.0	**220**	67 U	67 U	**88 J**	67 U	67 U
WC-12-Cb3	26.9	13.6	18.7	25.9	11.4	1.3	-	-	2.2	19 U	19 U	19 U	19 U	19 U	19 U
RC-13 (0-2)	3.5	4.2	4.7	10.3	18.0	12.9	32.2	14.3	46.5						
WC-13 (0-10)	2.8	2.8	5.8	14.5	13.9	7.1	40.5	12.8	53.3	**340**	92 U	92 U	**130 J**	92 U	92 U
WC-15 (0-10)	7.0	3.1	5.8	13.8	12.7	6.6	37.7	13.4	51.1	**290**	93 U	93 U	**130 J**	93 U	93 U
RC-14 (0-2)	2.4	3.4	6.9	12.4	21.8	19.5	24.1	9.5	33.6						
RC-15 (0-2)	2.2	3.1	6.0	12.9	21.2	19.7	25.7	9.2	34.9						
WC-14 (0-10)	0.8	1.7	5.7	22.0	23.3	8.5	27.2	10.9	38.1	**150**	77 U	77 U	**85 J**	77 U	77 U
SC-01 (0-10)	40.6	10.7	12.0	14.4	8.5	3.6	6.0	4.2	10.2	60 U	60 U	60 U	60 U	60 U	60 U
SC-02 (0-10)	14.3	7.6	13.5	18.8	11.0	4.9	19.7	10.0	29.7	**160**	62 U	62 U	**65**	62 U	62 U
SC-03 (0-10)	10.7	3.8	5.5	10.8	14.5	13.6	25.0	15.9	40.9	**220**	78 U	78 U	**170**	78 U	78 U
SC-04 (0-10)	41.4	11.8	14.6	9.4	3.2	2.0	9.2	8.2	17.4	**100**	58 U	58 U	**58**	58 U	58 U
RB-01										1 U	1 U	1 U	**0.4 J**	1 U	1 U
RB-02										1 U	1 U	1 U	**0.7 J**	1 U	1 U
RB-03										1 U	1 U	1 U	2 U	1 U	1 U

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Field I.D.	4-Methyl-phenol 106-44-5	Hexachloro-ethane 67-72-1	2,4-Dimethyl-phenol 105-67-9	Benzoic acid 65-85-0	1,2,4-Trichloro-benzene 120-82-1	Naphthalene 91-20-3	2-Methyl-naphthalene 91-57-6	1-Methyl-naphthalene 90-12-0	Dimethyl-phthalate 131-11-3	Acenaph-thylene 208-96-8	Acenaphthene 83-32-9	Dibenzo-furan 132-64-9	Diethyl-phthalate 84-66-2	Fluorene 86-73-7	N-Nitroso-diphenylamine 86-30-6
RC-01 (0-2)						**110 J**	**69 J**	**69 J**		140 U	**48 J**	**42 J**		**56 J**	
WC-01 (0-10)	**76**	69 U	35 U	**1000**	69 U	**100**	**52 J**	**55 J**	69 U	**28 J**	**34 J**	**45 J**	69 U	**72**	69 U
WC-01B-Ca3	20 U	20 U	25 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
RC-02 (0-2)						**240**	**100 J**	230 U		230 U	**80 J**	**92 J**		**100 J**	
WC-02 (0-10)	**170**	150 U	75 U	**1900 J**	150 U	**230**	**120 J**	**74 J**	**59 J**	**59 J**	**96 J**	**110 J**	150 U	**110 J**	150 U
RC-03 (0-2)						**64 J**	98 U	98 U		98 U	98 U	98 U		98 U	
WC-03 (0-10)	56 U	56 U	29 U	**250 J**	56 U	**42 J**	**20 J**	56 U	56 U	56 U	56 U	56 U	56 U	**20 J**	56 U
RC-04 (0-2)						**310**	**130 J**	**130 J**		180 U	**72 J**	**63 J**		**63 J**	
WC-04 (0-10)	**70 J**	82 U	42 U	**490 J**	82 U	**270**	**100**	**62 J**	82 U	**45 J**	**62 J**	**58 J**	82 U	**62 J**	82 U
WC-04-Cb3	19 U	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
WC-15-CD	19 U	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
RC-05 (0-2)						**290**	**120 J**	**120 J**		**46 J**	**64 J**	**55 J**		**64 J**	
WC-05 (0-10)	**110 J**	110 U	57 U	**1400**	110 U	**260**	**120**	**120**	**72 J**	**67 J**	**67 J**	**67 J**	110 U	**89 J**	110 U
WC-05-Ca3	19 U	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
RC-06 (0-2)						**350**	**150 J**	**85 J**		**51 J**	**77 J**	**68 J**		**77 J**	
WC-06 (0-10)	**97**	97 U	50 U	**1400**	97 U	**360**	**140**	**73 J**	97 U	97 U	**73 J**	**63 J**	97 U	**88 J**	97 U
WC-06-Ca3	19 U	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
RC-07 (0-2)						**330**	**130 J**	**130 J**		150 U	**83 J**	**60 J**		**68 J**	
WC-07 (0-10)	**85**	85 U	43 U	**1300**	85 U	**290**	**93**	**80 J**	85 U	**55 J**	**100**	**76 J**	85 U	**120**	85 U
RC-08 (0-2)						**260**	**100 J**	**100 J**		**38 J**	**61 J**	**46 J**		**69 J**	
WC-08 (0-10)	**84 J**	99 U	50 U	**320 J**	99 U	**360**	**150**	**79 J**	99 U	**69 J**	**99**	**79 J**	99 U	**89 J**	99 U
RC-09 (0-2)						**270**	**98 J**	**98 J**		**45 J**	**71 J**	**62 J**		**54 J**	
WC-09 (0-10)	**97 J**	110 U	58 U	1100 U	110 U	**340**	**120**	**74 J**	110 U	**63 J**	**85 J**	**63 J**	110 U	**85 J**	110 U
RC-10 (0-2)						**78 J**	**34 J**	98 U		98 U	98 U	98 U		98 U	
WC-10 (0-10)	56 U	56 U	29 U	560 U	56 U	**48 J**	**22 J**	56 U	56 U	56 U	**17 J**	56 U	56 U	**17 J**	56 U
WC-10-Cb3	19 U	19 U	23 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
RC-11 (0-2)						**540**	**240**	**240**		**80 J**	**130 J**	**80 J**		**130 J**	
WC-11 (0-10)	**95 J**	130 U	65 U	**410 J**	130 U	**680**	**250**	**140**	130 U	**130**	**200**	**89 J**	130 U	**150**	130 U
RC-12 (0-2)						**660**	**240**	**140 J**		**110 J**	**230**	**80 J**		**150 J**	
WC-12 (0-10)	**64 J**	67 U	34 U	670 U	67 U	**710**	**240**	**120**	**27 J**	**120**	**180**	**74**	67 U	**140**	67 U
WC-12-Cb3	19 U	19 U	24 U	190 U	19 U	**5.8 J**	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
RC-13 (0-2)						**180**	**100 J**	**100 J**		**39 J**	**86 J**	**86 J**		**86 J**	
WC-13 (0-10)	92 U	92 U	47 U	**310 J**	92 U	**320**	**120**	**74 J**	**32 J**	**51 J**	**78 J**	**60 J**	92 U	**69 J**	92 U
WC-15 (0-10)	**79 J**	93 U	47 U	**290 J**	93 U	**290**	**120**	**69 J**	**56 J**	**56 J**	**83 J**	**56 J**	93 U	**74 J**	93 U
RC-14 (0-2)						**100 J**	**68 J**	**45 J**		150 U	**53 J**	**45 J**		**60 J**	
RC-15 (0-2)						**110 J**	**62 J**	160 U		160 U	**47 J**	**55 J**		**55 J**	
WC-14 (0-10)	77 U	77 U	39 U	770 U	77 U	**170**	**73 J**	**42 J**	77 U	**35 J**	**46 J**	**35 J**	77 U	**38 J**	77 U
SC-01 (0-10)	60 U	60 U	31 U	600 U	60 U	**30 J**	**18 J**	60 U	60 U	60 U	60 U	60 U	60 U	**15 J**	60 U
SC-02 (0-10)	62 U	62 U	32 U	**220 J**	62 U	**71**	**34 J**	**34 J**	**22 J**	62 U	**28 J**	**37 J**	62 U	**28 J**	62 U
SC-03 (0-10)	78 U	78 U	40 U	**740 J**	78 U	**110**	**54 J**	**54 J**	**39 J**	78 U	**35 J**	**46 J**	78 U	**58 J**	78 U
SC-04 (0-10)	58 U	58 U	30 U	**190 J**	58 U	**52 J**	**29 J**	58 U	58 U	**15 J**	**18 J**	**18 J**	58 U	**20 J**	58 U
RB-01	2 U	2 U	3 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
RB-02	2 U	2 U	3 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
RB-03	2 U	2 U	3 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.7 J**	1 U	1 U

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Field I.D.	Pentachloro-phenol 87-86-5	Phenanthrene 85-01-8	Anthracene 120-12-7	total LPAH -	Di-n-butyl-phthalate 84-74-2	Fluoranthene 206-44-0	Pyrene 129-00-0	Butylbenzyl-phthalate 85-68-7	Benzo(a)-anthracene 56-55-3	*bis* (2-Ethylhexyl)-phthalate 117-81-7	Chrysene 218-01-9	Di-n-octyl-phthalate 117-84-0	total Benzo-fluoranthenes -	Benzo(a)-pyrene 50-32-8	Indeno(1,2,3-cd)pyrene 193-39-5
RC-01 (0-2)		880	150	1244		1600	1500		690	5600	1100		2000	890	370
WC-01 (0-10)	340 U	850	150	1234	52 J	1900	1600	160	730	2300	1100	150	2000	860	410
WC-01B-Ca3	99 U	20 U	20 U	20 U	20 U	6.0 J	6.0 J	20 U	20 U	50 U	20 U	20 U	40 U	20 U	20 U
RC-02 (0-2)		1300	240	1960		2200	2100		850	8300	1500		2600	1100	740
WC-02 (0-10)	240 J	1800	310	2605	260	3700	3300	400	1400	8200	2200	500	4100	1700	820
RC-03 (0-2)		280	49 J	393		470	470		250	1700	410		760	350	210
WC-03 (0-10)	280 U	160	31 J	253	20 J	360	350	59	130	1100	240	42 J	440	190	140
RC-04 (0-2)		1100	210	1755		2200	2300		870	5600	1600		2800	1300	800
WC-04 (0-10)	410 U	920	200	1559	230	1900	2000	390	790	5200	1300	230	2900	1200	470
WC-04-Cb3	97 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	48 U	19 U	19 U	39 U	19 U	19 U
WC-15-CD	96 U	5.8 J	19 U	6	19 U	4.8 J	7.7 J	19 U	19 U	48 U	19 U	19 U	38 U	19 U	19 U
RC-05 (0-2)		930	190	1584		1800	1800		790	7400	1400		2900	1200	480
WC-05 (0-10)	560 U	850	200	1533	84 J	2000	2000	600	670	7400	1300	590	2500	970	450
WC-05-Ca3	96 U	19 U	19 U	19 U	19 U	6.7 J	7.7 J	19 U	19 U	28 J	19 U	19 U	38 U	19 U	19 U
RC-06 (0-2)		970	210	1735		2200	2300		870	6100	1400		2900	1300	540
WC-06 (0-10)	490 U	880	210	1611	110	1900	2100	370	740	5600	1300	260	2500	1100	660
WC-06-Ca3	96 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	48 U	19 U	19 U	38 U	19 U	19 U
RC-07 (0-2)		760	260	1501		1600	1800		670	6900	1200		2400	970	410
WC-07 (0-10)	420 U	1200	300	2065	140	2200	2200	380	780	5200	1200	250	2300	1000	410
RC-08 (0-2)		710	160	1298		1500	1500		580	3800	980		2000	860	520
WC-08 (0-10)	490 U	1200	260	2077	140	2200	2400	300	960	6200	1600	220	3300	1500	600
RC-09 (0-2)		800	160 J	1400		1500	1600		640	5700	1100		2100	1000	620
WC-09 (0-10)	570 U	1100	230	1903	110	2000	2100	410	830	6400	1400	300	3300	1400	640
RC-10 (0-2)		190	49 J	317		360	380		150	880	220		510	230	88 J
WC-10 (0-10)	280 U	140	39 J	261	56 U	240	260	56	100	480	150	56 U	340	140	73
WC-10-Cb3	93 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	46 U	19 U	19 U	37 U	19 U	19 U
RC-11 (0-2)		930	300	2110		1900	2600		720	6600	1100		2200	1100	590
WC-11 (0-10)	630 U	1200	400	2760	120 J	1900	2600	370	820	6500	1300	480	3000	1300	440
RC-12 (0-2)		1000	390	2540		1900	2400		760	4000	1100		2000	1100	650
WC-12 (0-10)	340 U	1000	360	2510	57 J	1400	1800	250	680	3400	1000	110	2600	1200	330
WC-12-Cb3	97 U	7.8 J	19 U	13.6	19 U	9.7 J	16 J	19 U	6.8 J	52	7.8 J	19 U	14 J	19 U	19 U
RC-13 (0-2)		1200	200	1791		2500	2600		1100	4700	1600		3000	1400	570
WC-13 (0-10)	460 U	830	210	1558	100	1600	1700	360	700	4700	1100	190	2800	1000	390
WC-15 (0-10)	460 U	750	180	1433	100	1400	1400	270	600	4200	1000	180	2400	930	330
RC-14 (0-2)		1100	160	1473		2200	2100		890	5300	1500		2600	1200	350
RC-15 (0-2)		990	150 J	1352		1400	1200		750	5000	1200		2300	980	450
WC-14 (0-10)	380 U	560	140	989	73 J	1100	1200	210	490	4300	830	300	1900	720	250
SC-01 (0-10)	300 U	180	170	395	27 J	380	340	81	140	750	230	63	460	190	93
SC-02 (0-10)	310 U	260	53 J	440	59 J	670	640	290	240	2400	430	130	840	310	170
SC-03 (0-10)	390 U	710	140	1053	78 U	1800	1600	830	620	3600	1100	170	2000	820	420
SC-04 (0-10)	290 U	220	41 J	366	58 U	460	430	99	150	1100	290	84	550	220	130
RB-01	10 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	3 U	1 U	1 U	2 U	1 U	1 U
RB-02	10 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	2 U	1 U	1 U
RB-03	10 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	3 U	1 U	1 U	2 U	1 U	1 U

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April/May 2014 - Year 10

metals - mg/kg, dry
organics - µg/kg, dry

Field I.D.	Dibenz(a,h)-anthracene 53-70-3	Benzo(g,h,i)-perylene 191-24-2	total HPAH -	4,4'-DDE 72-55-9	4,4'-DDD 72-54-8	4,4'-DDT 50-29-3	Hexachloro-benzene 118-74-1	Hexachloro-butadiene 87-68-3
RC-01 (0-2)	**97 J**	**370**	8617					
WC-01 (0-10)	**130**	**460**	9190	2.3 U	0.97 U	4.8 U	**1.2**	0.97 U
WC-01B-Ca3	20 U	20 U	40 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
RC-02 (0-2)	**180 J**	**890**	12,160					
WC-02 (0-10)	**250**	**870**	18,340	7.0 U	3.0 U	17 U	**3.6**	3.0 U
RC-03 (0-2)	**64 J**	**230**	3214					
WC-03 (0-10)	**42 J**	**190**	2082	0.97 U	0.97 U	2.0 U	**0.50 J**	0.97 U
RC-04 (0-2)	**210**	**720**	12,800					
WC-04 (0-10)	**130**	**490**	11,180	4.3 U	8.8 U	7.8 U	**10**	0.99 U
WC-04-Cb3	19 U	19 U	39 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
WC-15-CD	19 U	19 U	38 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
RC-05 (0-2)	**140 J**	**690**	11,200					
WC-05 (0-10)	**150**	**500**	10,540	5.1 U	11 U	8.7 U	**2.9 J**	0.97 U
WC-05-Ca3	19 U	19 U	14	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
RC-06 (0-2)	**140 J**	**590**	12,240					
WC-06 (0-10)	**190**	**820**	11,310	4.9 U	11 U	8.4 U	**2.9**	0.98 U
WC-06-Ca3	19 U	19 U	38 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
RC-07 (0-2)	**110 J**	**360**	9520					
WC-07 (0-10)	**140**	**430**	10,660	4.4 U	12 U	8.1 U	**2.0**	0.97 U
RC-08 (0-2)	**140 J**	**570**	8650					
WC-08 (0-10)	**170**	**560**	13,290	4.2 U	0.99 U	7.1 U	**2.0**	0.99 U
RC-09 (0-2)	**180**	**720**	9460					
WC-09 (0-10)	**170**	**530**	12,370	6.1 U	2.3 U	12 U	**3.6**	2.3 U
RC-10 (0-2)	98 U	**88 J**	2026					
WC-10 (0-10)	**31 J**	**73**	1407	0.94 U	0.94 U	1.9 U	0.94 U	0.94 U
WC-10-Cb3	19 U	19 U	37 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
RC-11 (0-2)	**160 J**	**630**	11,000					
WC-11 (0-10)	**130**	**490**	11,980	5.9 U	2.5 U	11 U	**2.5 J**	2.5 U
RC-12 (0-2)	**190**	**740**	10,840					
WC-12 (0-10)	**100**	**330**	9440	3.9 U	0.99 U	7.6 U	**1.4**	0.99 U
WC-12-Cb3	19 U	19 U	54	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
RC-13 (0-2)	**160**	**590**	13,520					
WC-13 (0-10)	**110**	**380**	9780	4.2 U	0.99 U	8.4 U	**2.0**	0.99 U
WC-15 (0-10)	**93**	**400**	8553	4.0 U	0.96 U	8.0 U	**2.8**	0.96 U
RC-14 (0-2)	**110 J**	**340**	11,290					
RC-15 (0-2)	**130 J**	**440**	8850					
WC-14 (0-10)	**77**	**260**	6827	2.8 U	0.98 U	5.8 U	**1.4**	0.98 U
SC-01 (0-10)	**33 J**	**100**	1966	0.95 U	0.95 U	1.8 U	**0.48 J**	0.95 U
SC-02 (0-10)	**50 J**	**180**	3530	0.98 U	0.98 U	7.2 U	**1.2 J**	0.98 U
SC-03 (0-10)	**120**	**470**	8950	3.9 U	9.0 U	7.8 U	**2.3**	0.97 U
SC-04 (0-10)	**32 J**	**160**	2422	0.95 U	0.95 U	2.6 U	**0.67 J**	0.95 U
RB-01	1 U	1 U		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
RB-02	1 U	1 U		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
RB-03	1 U	**0.5 J**		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Field I.D.	Aroclor 1016 12674-11-2	Aroclor 1242 53469-21-9	Aroclor 1248 12672-29-6	Aroclor 1254 11097-69-1	Aroclor 1260 11096-82-5	Aroclor 1221 11104-28-2	Aroclor 1232 11141-16-5
RC-01 (0-2)	28 U	28 U	35 U	**80**	**75**	28 U	28 U
WC-01 (0-10)	28 U	28 U	36 U	**96**	**69**	28 U	28 U
WC-01B-Ca3	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	14 U
RC-02 (0-2)	30 U	30 U	45 U	**130**	**110**	30 U	30 U
WC-02 (0-10)	30 U	30 U	44 U	**110**	**73**	30 U	30 U
RC-03 (0-2)	28 U	28 U	28 U	**40**	**38**	28 U	28 U
WC-03 (0-10)	9.4 U	9.4 U	12 U	**23**	**18**	9.4 U	9.4 U
RC-04 (0-2)	29 U	29 U	44 U	**110**	**72**	29 U	29 U
WC-04 (0-10)	28 U	28 U	35 U	**95**	**65**	28 U	28 U
WC-04-Cb3	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	24 U
WC-15-CD	9.6 U	29 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
RC-05 (0-2)	9.9 U	9.9 U	49 U	**120**	**83**	9.9 U	9.9 U
WC-05 (0-10)	28 U	28 U	42 U	**110**	**82**	28 U	28 U
WC-05-Ca3	9.5 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
RC-06 (0-2)	30 U	30 U	44 U	**140**	**100**	30 U	30 U
WC-06 (0-10)	28 U	28 U	43 U	**120**	**100**	28 U	28 U
WC-06-Ca3	9.1 U	18 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
RC-07 (0-2)	9.4 U	47 U	9.4 U	**93**	**75**	9.4 U	9.4 U
WC-07 (0-10)	29 U	29 U	43 U	**94**	**77**	29 U	29 U
RC-08 (0-2)	29 U	29 U	37 U	**99**	**75**	29 U	29 U
WC-08 (0-10)	29 U	29 U	37 U	**92**	**78**	29 U	29 U
RC-09 (0-2)	29 U	29 U	36 U	**100**	**89**	29 U	29 U
WC-09 (0-10)	28 U	28 U	42 U	**110**	**87**	28 U	28 U
RC-10 (0-2)	9.8 U	9.8 U	12 U	**27**	**24**	9.8 U	9.8 U
WC-10 (0-10)	8.6 U	8.6 U	8.6 U	**19**	**16**	8.6 U	8.6 U
WC-10-Cb3	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	28 U
RC-11 (0-2)	30 U	30 U	37 U	**110**	**88**	30 U	30 U
WC-11 (0-10)	29 U	29 U	58 U	**150**	**89**	29 U	29 U
RC-12 (0-2)	30 U	30 U	37 U	**100**	**83**	30 U	30 U
WC-12 (0-10)	28 U	28 U	43 U	**87**	**62**	28 U	28 U
WC-12-Cb3	9.2 U	18 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U
RC-13 (0-2)	30 U	30 U	59 U	**100**	**140 J**	30 U	30 U
WC-13 (0-10)	29 U	29 U	36 U	**86**	**64**	29 U	29 U
WC-15 (0-10)	29 U	29 U	37 U	**81**	**70**	29 U	29 U
RC-14 (0-2)	28 U	28 U	28 U	**63**	**74**	28 U	71 U
RC-15 (0-2)	30 U	30 U	30 U	**73**	**63**	30 U	30 U
WC-14 (0-10)	30 U	30 U	37 U	**77**	**61**	30 U	30 U
SC-01 (0-10)	9.2 U	9.2 U	12 U	**20**	**16**	9.2 U	9.2 U
SC-02 (0-10)	28 U	28 U	28 U	**46**	**44**	28 U	34 U
SC-03 (0-10)	29 U	29 U	36 U	**80**	**68**	29 U	29 U
SC-04 (0-10)	27 U	27 U	27 U	**38**	**33**	27 U	27 U
RB-01	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
RB-02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
RB-03	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

U = nondetected at the associated value
J = associated value is considered an estimate due to a variety of factors - see report narrative

APPENDIX G

HEAD OF THE THEA FOSS CHEMISTRY DATA 2004-2014

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	79.8		2.44						6	U	6		0.2	U
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	77.7				96		430				7			
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	6.93		45.2		1200		4800				10			
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm	40.4		9.92		900		4700		10	U (UJ)	10	U	0.6	
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm	26.5		11.8		540		3400							
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm	45.6		5.65		860		5000							
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm	39.9		8.15		1400		7400							
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm	43.2		10.6		350		2800							
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm	46.31		9.13		660		3300							
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	86.9		1.47						5	U	5	U	0.2	U
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	78.9				91		440				6	U		
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	36.4		7.11		1100		5100		10	U (UJ)	10	U	0.6	
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	60.8		4.55											
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	46.7		6.84		670		3400							
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	86.8		1.19											
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	52.1		5.76											
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	71.3		7.09		180		1300							
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	58.11		5.72		540		2800							
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	85.6		0.548						6	U (UJ)	6	U	0.2	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	82.39		0.4											
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm	34.2		10.3		1100		7100							
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	50.7		5.32						9	U	9	U	0.4	U
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	7.11		41.7		1300		5900				10			
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	6.54		40.8		880		3700				10			
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm	41.6		5.17		1000		5300		10	U (UJ)	10	U	1	
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm	33.4		7.02		790		5600							
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm	32.4		3.22		880		4200							
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm	34.7		15		960		6000							
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm	31.2		15.7		670		6400							
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm					1500		6700							
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	48.9				340		1700				10	U		
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	61.6		3.45						8	U	8	U	0.3	U
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm	52		4.2											
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	4.9		65.3		440		2100				10			
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	47		6.37		840		4000		10	U (UJ)	10	U	1.2	
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	35.6		6.86											
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	34.2		8.33		610		2900							
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	42.5		8.69											
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	28.4		8.85		480		4800							
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm					1200		5600							
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm	50.9		5.72		460		3100							
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	37.8		6.68						10	U	10	U	0.5	U
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	5.44		50.4		400		1600				10	U		
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm	47.9		4.98		530		2300		10	U (UJ)	10	U	0.6	
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm	55.1		5.13		230		1500							
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm	50.4		4.35		280		1200							
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm	46.2		6.68		250	U	2400							
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm	64.26		3.07		240		1200							
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	50.8		7.12						10	U	10	U	0.4	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	33.2		44.1		25		0.06	U	28		0.3	U	74.3		25	
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm			39.7		27		0.06		24				71.9		25.8	
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm			81.7		104		0.2		37				289		21.3	
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm			76.5		90		0.1		59		0.8	U	287		22	
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm					111		0.3						380		31.7	
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm					94		0.1						308		12.9	
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm					206		0.19						**448**		4.8	
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm					77		0.07						266		32.8	
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm					92		0.11						275		16.3	
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	19.1		28.9		6		0.04	U	23		0.3	U	41		28	
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm			37.4		22		0.07		25				68.5		46.8	
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm			69.4		86		0.1		34		0.8	U	269		20.5	
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm					89		0.16						324		9.8	
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft					2	U	0.06	U					36		18	
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm					41		0.03	U					132		44.6	
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm					115		0.09						212		8.7	
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft			31.1		3		0.05	U	15		0.3	U	29.5		28.4	
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft					2	U	0.03	U					32		29.3	
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm					125		0.16						**473**		1	
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	27.5		71.3		20		0.1	U	27		0.6	U	71		1.2	
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm			107		122		0.3		34				261		0.4	
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm			106		123		0.3		34				267		0.2	
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm			88.4		97		0.2		31		0.7	U	254		0.8	
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm					114		0.2						**539**		2.4	
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm					134		0.2						**452**		2	
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm					112		0.17						**438**		3.1	
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm					120		0.14						368		0.2	
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm					130		0.17						**470**			
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm			91.3		70		0.1		30				164		0.7	
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	23.6		60.9		15		0.08	U	23		0.5	U	58		8.2	
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm					49.4		0.075						107	B		
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm			72.5		54		0.12		26				127		1.3	
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm			90.8		92		0.22		32		0.7	U	252		0.6	
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm					112		0.5						348		0.8	
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm					127		0.13						402		1	
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm					116		0.21						**428**			
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm					58		0.1						190		0.5	
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	40		112		44		0.1		36		0.8	U	115		0.1	
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm			69.3		55		0.21		25				123		0.1	
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm			73.6		62		0.16		28		0.7	U	166		3.8	
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm					36		0.1						113		0.1	
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm					33		0.09						108		0.1	
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm					66		0.11						203		0.3	
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm					28		0.06						104		0.6	
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	26		65.6		20		0.07		24		0.6	U	63		0.5	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm		40	17		6.1	7.2	4.9	12
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	19.7	31.5	14		1.8	3.8	2.5	6.3
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	8.6	15	10.1	7.3	7.9	18.1	11.7	29.8
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm	10.1	10.1	11.2	9.9	9.6	15.4	11.7	27.1
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm	16	10.1	7.3	5.5	5.1	14.2	10	24.2
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm	6.4	8.1	15.5	13.4	8.6	20.6	14.6	35.2
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm	8.4	9.3	7.8	9.8	11.8	33.6	14.4	48
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm	16.2	14.9	8.2	5	6.3	11.7	5	16.7
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm	7.5	8.2	14.2	11.4	8.1	23.9	10.3	34.2
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm		42	16		6.1	4.8	3	7.8
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	10.4	18.8	12.2		3.3	4.7	2.5	7.2
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	9.1	808	10.8	8.9	7.1	20.1	14.7	34.8
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	5.9	6.6	15.2	13.9	7.6	25.1	16.1	41.2
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	16.3	18.7	27	16.4	2.5			1.2
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	26.5	16	5.7	1.5	1.6	4.2	4.2	4.2
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	5.6	8.2	23.9	14.6	8.4	23.2	7.4	30.6
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	16.3	17.9	21.3	11.9	1.5	1.7	0.9	2.6
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	17.1	18.4	20.2	10.3	1.3	14	10.5	24.5
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm	4.2	6.1	9.2	12.4	8.6	42.5	16.1	58.6
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm		8.7	21		33	19	18	36
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	1	6.4	15	17.2	9	34.7	16.2	50.9
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	0.9	6.6	14.7	16.6	9	37.2	14.8	52
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm	3.8	16.2	15.9	11.6	0	34.7	17	51.7
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm	5.4	9.3	14.5	19.7	12.5	25.8	10.6	36.4
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm	2.7	6.5	10	12.8	12.4	38.1	15.5	53.6
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm	5.2	6.3	10.1	13.2	9.1	33.6	19.3	52.9
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm	8.8	8.3	9.3	12.8	14.8	34	11.8	45.8
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm								
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	1.7	5.1	18.4		6.8	30.6	13.7	44.3
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm		14	23		32	14	10	24
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm								
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	0.7	5.4	22	25.8	8	26.1	10.7	36.8
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	3	5	11.7	19	10.9	33.6	23.7	57.3
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	3.6	6.1	10.5	16.9	12	35.7	14.5	50.2
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	7.3	9.1	10.2	16.4	12.7	31.6	11.7	43.3
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm								
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm	2.4	5.2	15.2	18.9	11.7	33.2	12.8	46
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm		4.9	3.7		18	40	34	73
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	1	6.4	18.4	23.3	12.3	26.2	12.3	38.5
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm	2.4	5	15.4	17.8	9.2	32.7	13.6	46.3
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm	3.2	8.4	20.8	23.4	12.5	22	9.7	31.7
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm	2	7.4	20.7	24.3	13.1	22.9	9.6	32.5
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm	6.1	6.6	14.8	17.5	13.3	32.7	8.7	41.4
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm	6.5	13.5	25.3	23.5	8.8	14.2	7.6	21.8
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm		8.4	16		33	26	17	43

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm									57	U				
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm									220	U				
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm									160	U				
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm									150	U				
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm									160	U				
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm									98	U				
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm									63					
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm									42	J				
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm			39	U	39	U	39	U						
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm									59	U				
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	**650**		190	U	190	U	190	U	190	U	190	U	190	U
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	77	U							77	U				
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	75	J	99	U	99	U	99	U	99	U	99	U	99	U
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									120	U				
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	200		19	U	19	U	19	U	19		**120**		19	U
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	340	B	69	U	69	U	69	U	45	J	**280**		69	U
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm									98	U				
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm									78					
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm									230	U				
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm									160	U				
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm									110	J				
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm									200	U				
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm									99	U				
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm									120	U				
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm									92	J				
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm									120	U				
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm			39	U	39	U	39	U						
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm									11.8					
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm									39					
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	120	U	120	U	120	U	120	U	120	U	120	U	120	U
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	140	J							160	U				
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	200	U	200	U	200	U	200	U	200	U	200	U	200	U
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									86	J				
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	**590**	Y (U)	120	U	120	U	120	U	89	J	**340**		120	U
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	**420**		150	U	150	U	150	U	110	J	**380**	M (J)	150	U
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm									98	U				
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm									51					
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm									120	U				
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm									76	U				
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm									99	U				
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm									56	J				
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm									98	U				
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm			40	U	40	U	40	U						

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroethane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm														
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm														
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm														
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm														
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm									39	U				
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm														
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	650		190	U	190	U	1900	U	190	U	3.5	U	190	U
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	99	U	99	U	99	U	990	U	99	U	0.98	U	99	U
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	19	U	19	U	19	U	190	U	19	U	0.97	U	19	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	86		19	U	19	U	460		19	U	9.3	U	19	U
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	76		69	U	35	UJ (U)	**1000**		69	U	0.97	U	69	U
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	20	U	20	U	99	U	200	U	20	U	1	U	20	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm														
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm														
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm														
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm														
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm									39	U				
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm														
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm														
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	120	U	120	U	120	U	1200	U	120	U	3.5	U	120	U
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	200	U	200	U	200	U	2000	U	200	U	0.98	U	200	U
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	580		120	U	120	U	**1300**		120	U	9.7	U	120	U
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	170		150	U	75	UJ (U)	**1900**	Q (J)	150	U	3	U	150	U
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm														
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm														
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm									40	U				

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm					39	U	39	U	39	U	39	U
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm					120		57	U	57	U	57	U
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm					260		220	U	220	U	220	U
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm					160	U	160	U	160	U	100	J
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm					110	J	150	U	150	U	100	J
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm					160	U	160	U	160	U	100	J
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm					98	U	98	U	110		140	
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm					140		19	U	80		120	
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm					110	J	140	U	48	J	56	JQ (J)
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm					39	U	39	U	39	U	39	U
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm					59	U	59	U	59	U	59	U
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	3.5	U	960	U	190	U	190	U	190	U	190	U
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					64	J	77	U	77	U	47	J
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	2.4		500	U	52	J	99	U	99	U	66	J
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	0.97	U	97	U	19	U	19	U	19	U	19	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					120	U	120	U	120	U	61	J
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	9.3	U	100	Q (J)	33		10	J	19		32	
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	1.2		340	U	100		28	J	34	J	72	
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	1	U	98	U	20	U	20	U	20	U	20	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	1	U	99	U	20	U	20	U	20	U	20	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm					98	U	98	U	98	U	98	U
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm					47		20	U	22		20	U
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm					420		74		220		190	
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm					530		230	U	250		230	U
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm					190		160	U	140	J	150	J
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm					150	J	170	U	110	J	160	J
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm					200	U	200	U	200	U	200	U
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm					99	U	99	U	99	U	99	U
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm					120		120	U	65	J	77	J
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm					240		230	U	80	J	100	JQ (J)
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm					140		120	U	120	U	120	U
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm					39	U	39	U	39	U	39	U
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm					52.7		18	J	34.5		31.7	
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm					140		29	U	82		70	
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	3.5	U	580	U	210		60	J	130		110	J
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					93	J	160	U	94	J	120	J
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	5.6		990	U	200	U	200	U	200	U	200	U
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					120	J	120	U	100	J	170	
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	9.7	U	590	U	240		120	U	110	J	130	
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	3.6		240	J	230		59	J	96	J	110	J
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm					98	U	98	U	98	U	98	U
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm					130		20	U	67		41	
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm					320		50		160		120	
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm					150		120	U	120	U	120	U
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm					100		76	U	40	J	76	U
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm					99	U	99	U	99	U	99	U
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm					220		110	U	73	J	84	J
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm					64	J	98	U	98	U	98	U
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm					78		40	U	41		40	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	160		39	U	39	U	160		480		360		140	
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	340		91		57	U	550		680		560		250	
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	**1700**		380		220	U	2300		**4300**		**4000**		1200	
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm	**1600**		230		160	U	1900	J	**3900**		2200		1100	
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm	**1500**		300		150	U	2000	J	**2800**		2000		900	
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm	**1600**		270		160	U	2000	J	**3900**		3000		1300	
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**2400**		350		98	U	3000		**3300**		3100		**1800**	
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm	**1500**		310		98		2200		**3300**		1500	Q (J)	1100	
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm	880		150		69	J	1300	J	1600		1500		690	
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	85		39	U	39	U	85		250		140		75	
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	220		59	U	59	U	220		490		390		180	
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	810		160	J	190	U	970	J	2100		1400		670	
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	680		120		77	U	910	J	1500		1100		540	
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	1100		190		99	U	1400	J	**2700**		2000		940	
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1100		180		120	U	1300	J	**3200**		2000		1000	
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	440		79		21		630	J	1000		820		370	
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	850		150		52	J	1300	J	1900		1600		730	
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	20	U	20	U	20	U	20	U	6	J	6	J	20	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1200		170		98	U	1400		1900		1800		1000	
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	99		29		20	U	200		230		160		70	
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	1300		490		150		2800		**3900**		**3800**		1300	
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	**1600**		570		230	U	3000		**4600**		**4600**		**1600**	
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm	**1700**		370		160	U	2600	J	**5300**		**3500**		**1600**	
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm	**2500**		430		170	U	3400	J	**5000**		**4700**		**2000**	
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm	**1500**		250		200	U	1800		**3800**		3000		1300	
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm	**1500**		230		99	U	1700		2200		2000		1200	
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm	1200		170		59	J	1700	J	**2500**		2200		900	
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1300		240		100	J	2100	J	2200		2100		850	
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	650		210		120	U	1000		1500		1100		540	
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	70		39	U	39	U	70		150		120		54	
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm	230	J	92.9		22.3		480		820		441		183	
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	650		190		51		1200		1700		1600		540	
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	1400		360		120	U	2300	J	**4200**		3100		1200	
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	**2100**		320		160	U	2700	J	**4800**		**3300**		**1600**	
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	**1800**		310		200	U	2100		**4800**		**3700**		**1600**	
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	**2400**		410		62	J	3200	J	**7000**		**4800**		**2300**	
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	**2000**		290		110	J	2900	J	**4200**		**3900**		1500	
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	**1800**		310		120	J	2700	J	**3700**		**3300**		1400	
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm	780		130		98	U	910		1100		1100		580	
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	240		73		35		590		500		360		150	
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	700		290		100		1700		2000		2000		650	
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm	820		210		120	U	1200		2400		1700		790	
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm	570		120		39	J	870	J	1400		1300		540	
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm	650		100		99	U	750		1300		1200		460	
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm	1100		200		84	J	1800	J	**2700**		2800		1000	
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm	280		49	J	98	U	390	J	470		470		250	
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	85		40	U	40	U	200		120		110		45	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	260		320		220		540		170		90	
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	380		280		280		560		320		230	
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	2000		2400		2000		**4400**		**1600**		540	
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm	1800		1600		1700		3300		1400		410	
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm	1600		1500		1500		3000		960		380	
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm	2000		1600		1500		3100		1400		**890**	
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**3100**		1800	(J)	1800	(J)	**3600**	**(J)**	**1900**	**(J)**	**940**	**(J)**
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm	2000						3300		1200		530	
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1100						2000	Q	890		370	
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	130		120		85		210		79		53	
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	290		220		220		440		240		160	
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	1100		1200		660		1900		690		260	
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	750		710		850		1600		580		220	
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	1400		1200		1200		2400		1000		490	
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1600		1500		1500		3000		1200		500	
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	580						1000		410		170	
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	1100						2000		860		410	
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	20	U	20	U	20	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	20	U					40	U	20	U	20	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1800		1300		1300		2600		1200		530	
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	100		100		79		180		64		27	
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	2000		1700		1700		3400		**1600**		600	
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	2300		2300		1900		**4200**		**1900**		660	
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm	2700		2700		2300		**5000**		**2100**		620	
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm	**3100**		3300		3600		**6900**		**2300**		**870**	
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm	2200		1800		2100		**3900**		**1600**		**760**	
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm	2100		1500	(J)	1500	(J)	3000	(J)	1400	(J)	640	(J)
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm	1500						2400		580		**890**	
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1500						2600	Q	1100		**740**	
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	790		670		670		1300		680		340	
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	78		74		62		140		50		39	U
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm	265	B					340		194		106	
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	780		710		710		1400		670		250	
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	2200		2200		1800		**4000**		**1600**		480	
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	2200		2900		2000		**4900**		**1700**		600	
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2700		2800		2100		**4900**		**2000**		**860**	
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	**3600**		3400		3400		**6800**		**2700**		**900**	
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	2500						**4000**		1000		**1500**	
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	2200						**4100**		**1700**		**820**	
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1000		630	(J)	630	(J)	1300	(J)	670	(J)	460	(J)
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	220		190		210		400		140		56	
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	920		830		830		1700		810		240	
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm	1200		1100		1000		2100		970		410	
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm	790		920		960		1900		620		260	
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm	750		570		720		1300		580		320	
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm	1600						2900		770		**990**	
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm	410						760	Q	350		210	
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	60		58		42		100		40	U	40	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	39	U	87		2700		39	U	39	U	48	
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	57	U	180		3200		57	U	57	U	57	U
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	220	U	530		**19000**		220	U	220	U	410	
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm	160	U	480		15000							
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm	93	J	410		12000	J						
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm	**350**		**910**		**17000**							
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**290**	**(J)**	**970**	**(J)**	**19000**	**(J)**						
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm	**230**		580		14000							
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm	97	J	370		8600	J						
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	39	U	50		1200		39	U	39	U	39	U
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	59	U	130		2300		59	U	59	U	59	U
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	190	U	330		8400		190	U	190	U	160	J
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	53	J	210		6500	J	77	U	77	U	77	U
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	210		480		12000		99	U	99	U	100	
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	19	U	19	U	19	U	19	U	19	U	31	
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	110	J	400		13000	J	120	U	120	U	120	U
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	68		170		4600		19	U	19	U	55	
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	130		460		9200		69	U	69	U	52	J
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	20	U	20	U	20	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	20	U	20	U	12	J	20	U	20	U	20	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**230**		550		12000							
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	20	U	24		1000		20	U	20	U	20	U
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	190		600		**17000**		67	U	67	U	320	
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	**230**	U	640		**21000**		230	U	230	U	470	
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm	100	J	**790**		**22000**	**J**						
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm	**390**		**900**		**26000**							
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm	**310**		**760**		**18000**							
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm	**260**	**(J)**	640	(J)	13000	(J)						
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**310**		**1100**		12000							
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm	180	J	**890**		12000	J						
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	120	U	280		6600		120	U	120	U	120	U
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	39	U	39	U	720		39	U	39	U	39	U
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm	39.3		130		2500		3.7	J	6.7	J	58.5	J
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	89		240		7300		29	U	29	U	130	
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	81	J	620		**17000**	**J**	120	U	120	U	170	J (JB)
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	**230**		570		**20000**		160	U	160	U	160	U
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	**370**		**860**		**22000**		200	U	200	U	200	U
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	**300**		**970**		**29000**		120	U	120	U	340	
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	**550**		**1800**		**21000**		95	J	120	U	250	Q (J)
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	**250**		**870**		**18000**		59	J	150	U	260	
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm	190	(J)	460	(J)	6800	(J)						
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	20	U	53		2300		20	U	20	U	19	J
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	83		240		8600		44	U	44	U	150	
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm	120	U	520		10000							
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm	61	J	270		7100	J						
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm	130		320		6400							
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**330**		**1200**		14000							
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm	64	J	230		3200	J						
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	40	U	40	U	540		40	U	40	U	40	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	91		**1300**		45		0.44		0.38	U	2.3	U	3.8	U
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	120		**1300**	**B**	57	U	2	U	2	U	2	U	20	U
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	520		**8200**		330		4.4	J	9.4	U	15	J	20	U
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm			**8300**										9.9	U
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm			**14000**										9.9	U
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm			**6000**										9.8	U
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**6600**										12	U
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm			**8300**	B									19	U
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**5600**										28	U
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	39	U	550		41		0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	70		810	B	59	U	2	U	2	U	2	U	20	U
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	180	J	**4300**		420		7	U	7	U	7	U	9.9	U
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	180		**2300**		72	J								
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	380		**6400**		210		2	U	2	U	2	U	10	U
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	19	U	18	J	19	U	2	U	2	U	2	U	9.7	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	260		**3600**	B	210									
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	140	Qualifie	**4200**	B	140		19	U	19	U	19	U	3.8	U
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	160		**2300**		150		0.97	U	2.3	Y (U)	4.8	Y (U)	28	U
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20		20	U	2	U	2	U	2	U	9.7	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	20	U	50	U	20	U	1	U	1	U	1	U	9.6	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**5600**										12	U
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	29		470		120		0.68		0.39	U	1.3	U	3.9	U
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	540		**7300**		230		9.1	U	4.5	J	18	U	20	U
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	580		**13000**		320		10	J	15	U	27	J	59	U
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm			**8700**										9.8	U
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm			**9500**										9.8	U
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm			**8200**										9.8	U
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm			**6200**										12	U
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm			**8900**										19	U
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm			**8300**										30	U
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	270		**2700**	B	120	U	2.4		1.9	U	3.7	U	19	U
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	39	U	330		39	U	0.64		0.39	U	1.1	U	3.9	U
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm	4		371	J	54		5.5		3.47	J	12.5		5.3	U
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	200		**2700**		70		5.1	J	2	U	5	U	20	U
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	380		**7700**		190		7	U	7	U	12	U	9.8	U
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	350		**4900**		260									
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	360		**8000**		440		2	U	4	Y (U)	2	U	20	U
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	620		**10000**	B	560									
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	680	Q (J)	**7500**		390		20	U	20	U	20	U	20	U
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	400		**8200**	B	500		3	U	7	Y (U)	17	Y (U)	30	U
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**2700**										12	U
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	62		1100		58		0.78		1.1	U	1.4	U	3.9	U
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	240		**3200**		130		7.3	J	8.4	U	18	U	20	U
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm			**5100**										9.8	U
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm			**2600**										9.7	U
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm			**2100**										9.8	U
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm			**5500**										19	U
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**1700**										28	U
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	40	U	240		40	U	0.68		0.4	U	1.1	U	4	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
		SQO															300	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-01	RC-01	Year 0 OMMP	4/8/2004	0-2 cm	7.6	U	3.8	U	3.8	U	3.8	U	5.7		3.8	U	5.7	
RC/WC-01	RC-01	City Sampling	12/9/2004	0-2 cm	20	U	20	U	20	U	20	U	20	U	39	U	39	U
RC/WC-01	RC-01	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	36	J	92	J	72		200	J
RC/WC-01	Y2-RC01-S	Year 2 OMMP	5/16/2006	0-2 cm	9.9	U	20	U	9.9	U	20	U	40		55	J (JC)	95	J
RC/WC-01	Y3-RC01-S	Year 3 OMMP	5/16/2007	0-2 cm	9.9	U	9.9	U	9.9	U	30	U	100		72		170	
RC/WC-01	Y4-RC01-S	Year 4 OMMP	5/7/2008	0-2 cm	9.8	U	9.8	U	9.8	U	31		43		32		110	
RC/WC-01	Y5-RC01-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	23		63		81		170	
RC/WC-01	Y7-RC01-S	Year 7 OMMP	4/18/2011	0 - 2 cm	19	U	19	U	19	U	35		45	Y (U)	52		87	
RC/WC-01	Y10-RC01-S	Year 10 OMMP	4/30/2014	0 - 2 cm	28	U	28	U	28	U	35	Y (U)	80		75		160	
RC/WC-01	WC-01	Year 0 OMMP	4/8/2004	0-10 cm	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-01	WC-01	City Sampling	12/9/2004	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-01	Y2-WC01-S	Year 2 OMMP	5/16/2006	0-10 cm	9.9	U	15	U	9.9	U	9.9	U	28		44	J (JC)	72	J
RC/WC-01	WC-01-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-01	Y4-WC01-Sa	Year 4 OMMP	5/7/2008	0-10 cm	10	U	10	U	10	U	27		48		45		120	
RC/WC-01	Y4-WC01B-Ca3	Year 4 OMMP	5/8/2008	2.5-3.5 ft	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-01	WC-01-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
WC-01B/R-01B	Y7-WC01-S	Year 7 OMMP	4/18/2011	0-10 cm	3.8	U	3.8	U	3.8	U	8.6		16		16		41	
RC/WC-01	Y10-WC01-S	Year 10 OMMP	4/30/2014	0-10 cm	28	U	28	U	28	U	36	Y (U)	96		69		170	
WC-01B/R-01B	Y2-WC01B-C3	Year 2 OMMP	5/17/2006	2-3 ft	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
WC-01B/R-01B	Y10-WC01B-Ca3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	9.6	U	14	Y (U)	9.6	U	9.6	U	9.6	U	9.6	U	14	U
RC/WC-02	Y5-RC02-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	28		73		77		180	
RC/WC-02	RC-02	Year 0 OMMP	4/8/2004	0-2 cm	7.8	U	3.9	U	3.9	U	3.9	U	6.3		3.9	U	6.3	
RC/WC-02	RC-02	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	50	J	130	J	120		**300**	**J**
RC/WC-02	RC-2A (Dup of RC-2)	Year 1 OMMP	5/12/2005	0-2 cm	59	U	59	U	59	U	61		180	J	110		**350**	**J**
RC/WC-02	Y2-RC02-S	Year 2 OMMP	5/12/2006	0-2 cm	9.8	U	9.8	U	9.8	U	23		77		69		170	
RC/WC-02	Y3-RC02-S	Year 3 OMMP	5/16/2007	0-2 cm	9.8	U	9.8	U	9.8	U	39	Y (U)	78		55		130	
RC/WC-02	Y4-RC02-S	Year 4 OMMP	5/6/2008	0-2 cm	9.8	U	9.8	U	9.8	U	18		54		63		140	
RC/WC-02	Y5-RC15-SD	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	20		63		74		160	
RC/WC-02	Y7-RC02-S	Year 7 OMMP	4/19/2011	0 - 2 cm	19	U	19	U	19	U	42		78		78		200	
RC/WC-02	Y10-RC02-S	Year 10 OMMP	4/29/2014	0 - 2 cm	30	U	30	U	30	U	45	Y (U)	130		110		240	
RC/WC-02	RC-02	City Sampling	12/2/2004	0-8 cm	19	U	19	U	19	U	19	U	30		23		53	
RC/WC-02	WC-02	Year 0 OMMP	4/8/2004	0-10 cm	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-02	WC-02 (City)	City Sampling	12/2/2004	0-10 cm	5.3	U	5.3	U	5.3	U	5.3	U	34.5		31.9		66	
RC/WC-02	WC-02	Year 1 OMMP	5/12/2005	0-10 cm	20	U	20	U	20	U	25	J	57	J	43		130	J
RC/WC-02	Y2-WC02-S	Year 2 OMMP	5/12/2006	0-10 cm	9.8	U	9.8	U	9.8	U	27		69		64		160	
RC/WC-02	WC-02-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-02	Y4-WC02-Sa	Year 4 OMMP	5/6/2008	0-10 cm	20	U	20	U	20	U	18	J	52		68		140	J
RC/WC-02	WC-02-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-02	Y7-WC02-S	Year 7 OMMP	4/19/2011	0-10 cm	20	U	20	U	20	U	47		110		92		250	
RC/WC-02	Y10-WC02-S	Year 10 OMMP	4/29/2014	0-10 cm	30	U	30	U	30	U	44	Y (U)	110		73		180	
RC/WC-03	Y5-RC03-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	18		46		48		110	
RC/WC-03	RC-03	Year 0 OMMP	4/8/2004	0-2 cm	7.9	U	3.9	U	3.9	U	3.9	U	7.2		3.9	U	7.2	
RC/WC-03	RC-03	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	34	J	71	J	73	J	180	J
RC/WC-03	Y2-RC03-S	Year 2 OMMP	5/15/2006	0-2 cm	9.8	U	9.8	U	9.8	U	32	J (JP)	58		44		130	J
RC/WC-03	Y3-RC03-S	Year 3 OMMP	5/16/2007	0-2 cm	9.7	U	9.7	U	9.7	U	15	Y (U)	26	(JC)	38		64	(JC)
RC/WC-03	Y4-RC03-S	Year 4 OMMP	5/6/2008	0-2 cm	9.8	U	9.8	U	9.8	U	9.8	J	24		30		64	J
RC/WC-03	Y7-RC03-S	Year 7 OMMP	4/19/2011	0 - 2 cm	19	U	19	U	19	U	29		48		47		120	
RC/WC-03	Y10-RC03-S	Year 10 OMMP	4/30/2014	0 - 2 cm	28	U	28	U	28	U	28	U	40		38		78	
RC/WC-03	WC-03	Year 0 OMMP	4/8/2004	0-10 cm	7.9	U	4	U	4	U	4	U	5.7		4	U	5.7	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm	42		6.5											
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	54.4		5.32		340		1400		10	U (UJ)	10	U	0.4	U
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	60.4		2.54											
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	65.1		2.96		170		800							
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	48.1				93		420				10	U		
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	64.3		3.34											
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	54.4		5.18		220	U	1500							
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	72.89		2.6		88		430							
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm	46.6		5.28		670		4100							
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	55.2		6.34						9	U	9	U	0.4	U
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	6.26		35.4		1000		3500				20			
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm	46.4		7.41		680		3000		10	U (UJ)	10	U	0.5	U
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm	45.5		7.21		500		3300							
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm	46		4.44		470		2200							
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm	42.4		5.82		500		3800							
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm					950		4800							
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	49.1				40		210				10			
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	70		4.6						7	U	7	U	0.3	U
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	67.7		6.23						7	U	7	U	0.3	U
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	55.1				31		100				9	U		
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	54.3				71		380				9	U		
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	6.28		52.5		350		1400				10			
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	55.3		3.2		470		2100		9	U (UJ)	9	U	0.6	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	56.1		3.3											
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	53.6		3.53		420		2000							
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	41.7		7.52		390		3500							
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	84.1		0.886						6	U	6	U	0.2	U
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	91.7		0.14						10	U	10	U	0.5	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	90.8		0.0364						5	U	5	U	0.2	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	87.5		0.866						6	U (UJ)	6	U	0.2	U
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	86.6		0.201											
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	54.9		4.24											
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	82.5		0.914											
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm					760		3900							
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	86.77		0.217											
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	87.6		0.194											
WC-15	Y7-WC15-CD (Dup of WC04	Year 7 OMMP	4/21/2011	4.4' core ho	84.7		0.822											
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm	40.4		6.07		1200		6100							
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	46.2		5.34						10	U	10	U	0.4	U
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	45.4		5.2						10	U	10	U	0.4	U
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	5.2		41.6		880		3000				10			
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm	44.6		6.58		720		3200		10	U (UJ)	10	U	0.7	
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm	44		5.89		540		3300							
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm	40.5		7.24		730		3200							
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm	39.5		6.98		430		3800							
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm	36.84		5.38		1200		5900							
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	58.7		4.48						8	U	8	U	0.3	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	44.9				190		790				10	U		
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	4.89		49.4		390		1400				10			

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm					42		0.081						93	B		
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm			55.7		37		0.13		21		0.6	U	99		1.53	
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm					28		0.08						96		0.9	
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm			84.4		34		0.1		29				90		1.1	
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm					52		0.09						171		0.4	
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm					19		0.04						79		7	
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm					85		0.12						257		0.1	
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	27.1		71.8		19		0.08		25		0.5	U	70		4.1	
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm			119		140		0.5		37				254		0.2	
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm			46.7		44		0.2		19		0.7	U	108		2.8	
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm					77		0.32						227		0.7	
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm					54		0.12						161		0.1	
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm					70		0.1						234		0.8	
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm					107		0.2						342			
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm			76.8		49		0.16		27				128		5.9	
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	24		55.2		13		0.06	U	22		0.4	U	52.2		14	
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	23.2		62		13		0.05		21		0.4	U	48.2		14	
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm			67.7		33		0.11		26				98		3	
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm			67.2		35		0.12		25				95		4.5	
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm			80.9		50		0.25		26				113		9.3	
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm			61.2		54		0.18		23		0.6	U	133		7.1	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm																
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm					48		0.13						152		0.33	
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm					99		0.16						308		0.5	
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	19.7		36		3		0.04	U	20		0.3	U	35.3		15	
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	26		37		5	U	0.05	U	22		0.8	U	38		25	
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	18.3		40.8		2	U	0.05	U	18		0.3	U	36.9		28	
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft			43.8		5		0.06	U	21		0.3	U	40.8		20.5	
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft					2	U	0.04	U					36		40.9	
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho					2	U	0.02	U					30		27.2	
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm					77		0.16						237			
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft					2	U	0.03	U					41		23.2	
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft					2	U	0.02	U					35		25	
WC-15	Y7-WC15-CD (Dup of WC04	Year 7 OMMP	4/21/2011	4.4' core ho					2	U	0.02	U					32		26.6	
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm					79		0.14						268		0.4	
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	33		87.3		19		0.09		29		0.6	U	70		0.1	
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	31		85.1		19		0.09	U	28		0.6	U	69		3.4	
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm			100		108		0.3		31				187		0.1	
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm			83.5		76		0.19		32		0.7	U	189		0.4	
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm					78		0.2						220		0.7	
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm					78		0.24						242		0.1	
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm					103		0.2						337		2	
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm					111		0.2						375		2.6	
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	24.2		60.4		10		0.11		23		0.5	U	48		3.2	
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm			100		70		0.3		31				138		0.5	
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm			80.3		54		0.2		27				111		2.6	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm								
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	1.9	5.3	15.7	23.1	12.3	26.2	14	40.2
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.7	8.5	23.2	27.8	13.2	16.1	7.6	23.7
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	0.7	1.5	9.9		18.5	33.7	20.5	54.2
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	2.9	7	17.3	21.6	13.4	28.8	8.6	37.4
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	6.1	14	30.6	24.2	6.8	7.2	4.2	11.4
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm	2.5	5	11.7	14.4	10.8	40.1	15.3	55.4
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm		18	20		24	18	16	34
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	0.6	5.7	8.7	9.5	7.5	49.7	18.1	67.8
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm	3.5	5.9	13.8	17.6	10.3	33.2	12.9	46.1
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm	0.8	5.3	13.6	15.5	11.2	35.8	17.1	52.9
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm	1.6	7.1	19	19.9	10.1	29.9	12.4	42.3
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm	5.3	9	16.1	14.4	9.6	36.3	8.4	44.7
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm								
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	5.1	8.7	14.3		7.7	29.7	15.8	45.5
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm		25	20		25	9.8	6.4	16
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm		24	20		25	11	6.7	18
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	5.3	7.8	19.3		7.8	23.6	14.8	38.4
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	4	9.6	18.9		7.6	22.6	14.8	37.4
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	5.8	10.4	17.1	12.9	7	24.6	12.8	37.4
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	5.2	9.5	19.3	15.7	7.2	24	12.1	36.1
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm								
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.7	8.87	21.1	20.4	9.83	24.7	12.1	36.8
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	4.2	4.9	9.4	12	11.4	46.5	11.2	57.7
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft		33	26		22	2.6	1.3	3.9
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft		43	21		9.8	0.8	0.5	1.3
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft		44	19		7.3	1.1	0.5	1.6
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	17.1	20.3	23.8	12.7	2.9	2.7	0	2.7
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	14.7	13.9	19.1	10.1	1			0.3
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	14	14.9	23	15.2	2.4	3.3	3.3	3.3
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm								
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	23.2	20.7	20.6	9.1	1.5	6.8	5.1	11.9
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19.8	21.2	20.7	9.6	1.5	8.4	6.3	14.7
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	13.2	16.3	23.6	15.4	2.3	2.8	2.8	2.8
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm	2.7	2.3	10.7	12.7	9	42.6	19.6	62.2
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm		5.3	8		32	32	22	54
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm		3.6	7.9		33	31	21	53
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	0.6	3.6	9.9	16	9.9	45.4	14.6	60
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm	3.7	4.8	12	16.5	11.2	34.4	16.9	51.3
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm	3.1	5.3	12.4	15.7	11.8	34.3	16.7	51
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm	1.9	5.1	12	14.2	10.3	43.9	12.5	56.4
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm	5.4	6.2	10.9	11	9.4	39.5	15.4	54.9
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm	2.8	3.9	6.3	8.8	8.5	52.6	14.4	67
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm		13	17		36	20	11	31
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	0.4	1	6.2		16.2	41.7	19.5	61.2
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	3.4	5.4	11.3	16.3	13.2	32.6	15.2	47.8

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm									9.1	J				
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	73	U	73	U	73	U	73	U	73	U	73	U	73	U
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	69	U							69	U				
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	58	U	58	U	58	U	58	U	58	U	58	U	58	U
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm									99	U				
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									200	U				
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	170		110	U	110	U	110	U	110	U	68	J	110	U
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	65	B	56	U	56	U	56	U	56	U	56	U	56	U
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm									98	U				
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm									120					
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm									320	U				
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm									110	U				
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm									59	U				
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm									82	J				
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm									63	J				
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm									120	U				
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm									98	U				
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm									140	U				
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm									36	U				
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	100	U	100	U	100	U	100	U	100	U	100	U	100	U
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	66	U							66	U				
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	180		120	U	120	U	120	U	75	J	**98**	J	120	U
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft			19	U	19	U	19	U	19	U				
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft			19	U	19	U	19	U	19	U				
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft			19	U	19	U	19	U	19	U				
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									200	U				
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	280		82	U	82	U	82	U	58	J	130	M (J)	82	U
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm									99	U				
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm									130					
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm									150	U				
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm									150	U				
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm									59	U				
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm									87	J				
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm									55	J				
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm									120	U				
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm									41	U				

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroeth ane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm														
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	73	U	73	U	73	U	730	U	73	U	3.5	U	73	U
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	58	U	58	U	58	U	580	U	58	U	0.96	U	58	U
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm														
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	110	U	110	U	110	U	360	J	110	U	110	U	110	U
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	56	U	56	U	29	UJ (U)	250	J	56	U	0.97	U	56	U
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm														
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm														
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm														
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm														
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm														
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm														
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm														
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm														
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	100	U	100	U	100	U	1000	U	100	U	3.5	U	100	U
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm														
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	590	U	59	U	1.9	U	59	U
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	69	J	120	U	120	U	1200	U	120	U	9.7	U	120	U
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft									19	U				
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft									19	U				
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft									19	U				
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	19	U	19	U	19	U	190	U	19	U	0.97	U	19	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	19	U (R)	190	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	70	J	82	U	42	UJ (U)	490	JQ (J)	82	U	0.99	U	82	U
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	24	U	190	U	19	U	0.97	U	19	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	47	U	190	U	19	U	0.96	U	19	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	19	U (R)	190	U	19	U	19	U	19	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm														
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm														
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm														
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm					65.4		20.9	J	33.4		28	
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	3.5	U	370	U	99		73	U	73	U	73	U
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					50	J	69	U	69	U	69	U
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	1.8		290	U	58	U	58	U	58	U	58	U
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm					120		99	U	99	U	99	U
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					200	U	200	U	200	U	200	U
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	110	U	560	U	220		110	U	62	J	96	J
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	0.5	J	280	U	42	J	56	U	56	U	20	J
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm					98	U	98	U	98	U	98	U
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm					44		19	U	24		19	U
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm					980		140		480		350	
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm					320	U	320	U	190	J	190	J
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm					130		110	U	61	J	63	J
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm					99		59	U	59	U	59	U
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm					260		120	U	99	J	120	
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm					310		180	U	72	J	63	JQ (J)
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm					220		120	U	130		120	U
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm					78		20	U	51		26	
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm					92		20	U	61		30	
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm					170		98	U	110		98	U
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm					160		140	U	140	U	140	U
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm					170		36	U	86		61	
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	3.5	U	520	U	190		100	U	120		120	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm					91		66	U	47	J	34	J
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.6		300	U	80		59	U	59	U	59	U
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	9.7	U	570	U	300		120	U	100	J	120	
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft					19	U	19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft					19	U	19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft					19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	1	U	98	U	20	U	20	U	20	U	20	U
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	0.97	U	97	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					110	J	200	U	200	U	200	U
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	95	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	10		410	U	270		45	J	62	J	62	J
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	0.97	U	97	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	0.96	U	96	U	19	U	19	U	19	U	19	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	94	U	19	U	19	U	19	U	19	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm					99	U	99	U	100		100	
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm					34		20	U	20	U	20	U
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm					36		20	U	20	U	20	U
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm					1000		170		**530**		360	
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm					150	U	150	U	150	U	150	U
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm					110	J	150	U	150	U	150	U
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm					150		59	U	73		67	
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm					370		64	J	110	J	130	
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm					290		46	J	64	J	64	JQ (J)
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm					25		20	U	20	U	20	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm					180		120	U	140		120	U
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm					280		49		140		100	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm	152	J	62.5		19.9		380		356		393		121	
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	440		140		73	U	680		1200		920		400	
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	340		76		69	U	470	J	900		770		330	
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	230		58	U	58	U	230		580		610		220	
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	270		120		99	U	510		590		520		230	
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	480		200	U	200	U	480		1300		980		490	
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	910		370		85	J	1700	J	2100		2200		850	
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	160		31	J	20	J	270	J	360		350		130	
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1300		200		98	U	1500		1900		2000		980	
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	98		25		19	U	190		180		150		56	
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	**1600**		860		320		4700		**4500**		**4600**		**1600**	
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm	1400		270	J	320	U	2100	J	**2900**		2600		960	
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm	930		190		110	U	1400	J	2300		2000		840	
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm	540		120		59	U	760		1400		1200		500	
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**1600**		270		100	J	2400	J	**3600**		**3400**		1300	
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1100		210		130	J	1900	J	2200		2300		870	
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	600		240		120	U	1200		1500		940		480	
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	120		40		21		340		160		120		54	
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	140		45		24		390		190		140		64	
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	440		190		98	U	910		1100		730		360	
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	400		170		140	U	730		950		600		320	
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	400		180		57		950		1200		1200		390	
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	840		220		100	U	1500		2400		1900		780	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	440		99		34	J	750	J	940		1000		420	
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	540		120		59	U	740		1400		1100		510	
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	**1500**		300		110	J	2400	J	**3600**		**3700**		1400	
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	33		19	U	19	U	33		54		50		20	
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	36		20	U	20	U	36		66		68		25	
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	19	U	19	U	19	U	19	U	9.7	J	11	J	19	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	900		170	J	200	U	1200	J	2400		1800		870	
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	24		19	U	19	U	24		32		32		19	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	920		200		100		1700	J	1900		2000		790	
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	5.8	J	19	U	19	U	5.8	J	4.8	J	7.7	J	19	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1200		210		99	U	1600		1600		1600		850	
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	40		20	U	20	U	74		73		49		22	
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	47		20	U	20	U	83		72		53		23	
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	**1700**		**1000**		350		5100		**4500**		**4900**		**1700**	
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm	690		220		150	U	910		1700		1600		690	
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm	680		140	J	150	U	930	J	1800		1500		640	
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm	940		210		64		1500		**2500**		2300		820	
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**1500**		300		140		2600	J	**3500**		**3600**		1300	
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm	930		190		120	J	1700	J	1800		1800		790	
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	39		20	U	20	U	64		63		50		20	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	580		260		120	U	1200		1100		890		420	
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	550		300		95		1500		1600		1700		550	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm	170						240		125		89.4	
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	570		530		480		1000		480		250	
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	480		540		600		1100		410		160	
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	370		290		360		650		290		150	
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	300		250		250		500		260		120	
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	750		640		640		1300		630		400	
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	1300						2400		810		**870**	
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	240						440		190		140	
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1800		1300		1300		2600		1200		610	
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	82		76		74		150		56		23	
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	2100		1900		1900		**3800**		**1900**		550	
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm	1500		1600		920		2500		1100		670	
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm	1300		1300		1500		2800		1000		410	
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm	800		820		710		1500		630		270	
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm	2100						**3700**		940		**1200**	
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1600						2800	Q	1300		**800**	
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	660		600		600		1200		610		260	
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	72		54		66		120		47		20	U
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	81		70		66		140		55		20	U
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	490		450		450		900		440		200	
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	440		400		400		800		400		170	
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	540		580		510		1100		490		150	
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	1100		1400		640		2000		860		300	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	600		730		690		1400		510		190	
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	790		890		730		1600		640		250	
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	2200						**4000**		1000		**1300**	
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	27		22		19	J	41	J	20		19	U
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	34		38		19	J	57	J	26		16	J
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1400		1300		1300		2600		1100		420	
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	19	U					29		19	U	19	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	1300						2900		1200		470	
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U					39	U	19	U	19	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U					38	U	19	U	19	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	19	U					19	U	19	U	19	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1400		1100		1100		2200		1000		460	
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	30		23		19	J	42		20		20	U
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	30		20		18	J	38		20	J	20	U
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	2000		1800		1800		**3600**		**1900**		490	
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm	1100		820		1100		1900		840		240	
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm	960		1100		870		2000		740		400	
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm	1400		1500		1500		3000		1300		450	
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm	2200						**4000**		1200		**1200**	
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1400						2900	Q	1200		480	
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	24		21		20		41		20	U	20	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	550		350		350		700		490		340	
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	690		640		640		1300		650		180	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm	34.9		92.9		1600		4.5	UJ	8.2	UJ	35.7	B
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	73	U	320		5200		73	U	73	U	200	J (JB)
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	39	J	150		4400	J	69	U	69	U	50	J
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	61		160		3100		58	U	58	U	58	U
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	99	U	99	U	2500		99	U	99	U	99	U
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	150	J	410		6400	J	200	U	200	U	200	U
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	**380**		**1100**		12000		110	U	110	U	170	Q (J)
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	42	J	190		2100	J	56	U	56	U	20	J
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**230**		600		12000							
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	19	U	21		870		19	U	19	U	19	U
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	200		580		**20000**		72	U	72	U	250	
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm	**320**	U	**910**		13000							
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm	82	J	420		11000	J						
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm	64		280		6700							
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**480**		**1400**		**18000**							
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm	210		**720**		13000							
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	120	U	220		5900		120	U	120	U	120	U
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	690		20	U	20	U	20	U
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	800		20	U	20	U	20	U
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	98	U	160		4400		98	U	98	U	98	U
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	140	U	140		3800		140	U	140	U	140	U
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	50		140		5300		36	U	36	U	92	
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	63	J	350		9800	J	100	U	100	U	290	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	40	J	200		5300	J	66	U	66	U	66	U
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	61		260		6600		59	U	59	U	59	U
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	**480**		**1500**		**19000**		120	U	120	U	340	Q (J)
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	19	U	19	U	190		19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	20	U	22		310	J	20	U	20	U	14	J
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	19	U	19	U	21	J	19	U	19	U	19	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	130	J	410		11000	J	200	U	200	U	200	U
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	93		19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	130		490		11000		82	U	82	U	230	
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	39	U	19	U	19	U	19	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	19	U	13	J	19	U	19	U	19	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm	170		460		9700							
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	20	U	20	U	260		20	U	20	U	20	U
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	20	U	20	U	240		20	U	20	U	20	U
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	180		510		**20000**		75	U	75	U	220	
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm	150	U	280		8400							
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm	83	J	390		8500	J						
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm	83		480		12000							
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**420**		**1400**		**19000**							
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm	140	J	690		11000	J						
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	220		20	U	20	U	20	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	120	U	290		4800		120	U	120	U	120	U
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	56		170		6900		41	U	41	U	92	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm	4.9	U	275	B	4.2	U	3.74	J	3.72	J	12.2		5.6	U
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	130		**2300**		100		7	U	7	U	7	U	10	U
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	94		**1800**		67	J								
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	76		1200		58	U	1.9	U	1.9	U	1.9	U	9.6	U
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	99	U	940	B	99	U	2	U	2	U	2	U	20	U
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	130	J	**2400**	B	120	J								
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	300	Q (J)	**3400**		110		1.9	U	1.9	U	1.9	U	19	U
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	59		1100		42	J	0.97	U	0.97	U	2	Y (U)	9.4	U
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**4900**										12	U
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	27		360		19	U	0.75		0.39	U	1.3	U	3.9	U
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	520		**6700**		250		5.8		8.1	U	11		20	U
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm			**5900**										10	U
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm			**5100**										9.9	U
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm			**2800**										9.9	U
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm			**5500**										19	U
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm			**5600**										29	U
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	180		**1800**	B	120	U	1.4	J	2	U	2	U	20	U
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	20	U	260		20	U	0.77		0.39	U	0.93	U	3.9	U
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	20	U	290		25		0.89		0.4	U	1.1	U	4	U
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	140		**1300**	B	98	U	1.5	J	2	U	2	U	20	U
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	140	U	1000	B	140	U	2.1		2	U	20		20	U
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	160		**1700**		70		5.7	U	2	U	11	J	20	U
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	200		**4600**		180		7	U	7	U	7	U	9.8	U
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	200		**2300**		53	J								
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	120		**2400**		120		3.8	U	3.8	U	3.8	U	9.8	U
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	580	Q (J)	**6200**		240		19	U	19	U	19	U	19	U
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	23		73		19	U	0.38	U	0.38	U	0.38	U	3.8	U
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	19	U	19	U	19	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	19	U	19	U	19	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	20	U	120		20	U	2	U	2	U	2	U	9.8	U
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	19	U	19	U	19	U	1.9	U	1.9	U	1.9	U	9.7	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	290		**4000**	B	180	J								
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	26		19	U	1.8	U	1.8	U	1.8	U	9.4	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	390		**5200**	B	230		8.8	Y (U)	4.3	Y (U)	7.8	Y (U)	28	U
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	48	U	19	U	0.97	U	0.97	U	0.97	U	9.5	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	19	U	48	U	19	U	0.96	U	0.96	U	0.96	U	9.6	U
WC-15	Y7-WC15-CD (Dup of WC04	Year 7 OMMP	4/21/2011	4.4' core ho	19	U	23		19	U	1.9	U	1.9	U	1.9	U	9.4	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**5500**										12	U
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	20	U	110		20	U	0.66		0.39	U	0.39	U	3.9	U
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	20	U	100		20	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	480		**5600**		240		12	J	10	U	19	J	20	U
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm			**5400**										9.8	U
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm			**4000**										9.7	U
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm			**6900**										9.8	U
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm			**8200**										19	U
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**7400**										9.9	U
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	20	U	76		20	U	0.39	U	0.39	U	0.5	U	3.9	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	230		**1300**	B	120	U	2.4		2	U	2	U	20	U
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	170		**2200**		92		6.7	U	8.8	U	12		20	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
		SQO Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		300 UG/KG	
RC/WC-03	WC-03 (City)	City Sampling	12/2/2004	0-10 cm	5.6	U	5.6	U	5.6	U	5.6	U	30.3		25.5		56	J
RC/WC-03	Y2-WC03-S	Year 2 OMMP	5/15/2006	0-10 cm	10	U	10	U	10	U	24		47		36		110	
RC/WC-03	WC-03-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-03	Y4-WC03-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.6	U	9.6	U	9.6	U	8.2	JP (J)	18		25		51	J
RC/WC-03	RC-03	City Sampling	12/2/2004	0-12 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-03	WC-03-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-03	Y7-WC03-S	Year 7 OMMP	4/19/2011	0-10 cm	19	U	19	U	19	U	19	U	38		31		69	
RC/WC-03	Y10-WC03-S	Year 10 OMMP	4/30/2014	0-10 cm	9.4	U	9.4	U	9.4	U	12	Y (U)	23		18		41	
RC/WC-04/R-02	Y5-RC04-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	26	J	60		69		160	J
RC/WC-04/R-02	RC-04	Year 0 OMMP	4/8/2004	0-2 cm	7.7	U	3.9	U	3.9	U	3.9	U	5.7		3.9	U	5.7	
RC/WC-04/R-02	RC-04	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	37		71	J	64		170	J
RC/WC-04/R-02	Y2-RC04-S	Year 2 OMMP	5/12/2006	0-2 cm	10	U	10	U	10	U	20		46		42		110	
RC/WC-04/R-02	Y3-RC04-S	Year 3 OMMP	5/17/2007	0-2 cm	9.9	U	9.9	U	9.9	U	25	Y (U)	67		73		140	
RC/WC-04/R-02	Y4-RC04-S	Year 4 OMMP	5/6/2008	0-2 cm	9.9	U	9.9	U	9.9	U	16		39		42		97	
RC/WC-04/R-02	Y7-RC04-S	Year 7 OMMP	4/19/2011	0 - 2 cm	19	U	19	U	19	U	28		53		51		130	
RC/WC-04/R-02	Y10-RC04-S	Year 10 OMMP	4/29/2014	0 - 2 cm	29	U	29	U	29	U	44	Y (U)	110		72		180	
RC/WC-04/R-02	RC-04	City Sampling	12/1/2004	0-9 cm	20	U	20	U	20	U	20	U	22	J	20	U	22	
RC/WC-04/R-02	WC-04	Year 0 OMMP	4/8/2004	0-10 cm	7.8	U	3.9	U	3.9	U	3.9	U	5.4		3.9	U	5.4	
RC/WC-04/R-02	WC-04-Duplicate	Year 0 OMMP	4/8/2004	0-10 cm	8	U	4	U	4	U	4	U	5.6		4	U	5.6	
RC/WC-04/R-02	S-34 (Dup of WC-04)	City Sampling	12/1/2004	0-10 cm	20	U	20	U	20	U	20	U	21	J	20	U	21	
RC/WC-04/R-02	WC-04	City Sampling	12/1/2004	0-10 cm	20	U	20	U	20	U	20	U	22	J	20	U	22	
RC/WC-04/R-02	WC-04	Year 1 OMMP	5/12/2005	0-10 cm	20	U	20	U	20	U	21	J	39	J	29		89	J
RC/WC-04/R-02	Y2-WC04-S	Year 2 OMMP	5/12/2006	0-10 cm	9.8	U	9.8	U	9.8	U	17		36		33		86	
RC/WC-04/R-02	WC-04-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm														
RC/WC-04/R-02	Y4-WC04-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	15		33		39		87	
RC/WC-04/R-02	Y7-WC04-S	Year 7 OMMP	4/19/2011	0-10 cm	19	U	19	U	19	U	39		76		68		180	
RC/WC-04/R-02	WCBU-4A	Year 0 OMMP	4/7/2004	0-1 ft	7.6	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U	7.6	U
RC/WC-04/R-02	WCBU-4B	Year 0 OMMP	4/7/2004	1-2 ft	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-04/R-02	WCBU-4C	Year 0 OMMP	4/7/2004	2-3 ft	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-04/R-02	Y2-WC04-C3	Year 2 OMMP	5/17/2006	1.5-3 ft	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
RC/WC-04/R-02	Y4-WC04-Cc3	Year 4 OMMP	5/8/2008	5.5-6.5 ft	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-04/R-02	WC-04-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-04/R-02	Y7-WC04-Ca3	Year 7 OMMP	4/21/2011	4.4' core ho	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
RC/WC-04/R-02	Y10-WC04-S	Year 10 OMMP	4/29/2014	0-10 cm	28	U	28	U	28	U	35	Y (U)	95		65		160	
RC/WC-04/R-02	Y10-WC04-Cb3	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	9.5	U	24	Y (U)	9.5	U	9.5	U	9.5	U	9.5	U	24	U
RC/WC-04/R-02	Y10-WC15-CD	Year 10 OMMP	5/1/2014	1.9 - 2.9 ft	9.6	U	9.6	U	29	Y (U)	9.6	U	9.6	U	9.6	U	29	U
WC-15	Y7-WC15-CD (Dup of WC0	Year 7 OMMP	4/21/2011	4.4' core ho	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
RC/WC-05	Y5-RC05-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	12	U	36		33		69	
RC/WC-05	RC-05	Year 0 OMMP	4/8/2004	0-2 cm	7.8	U	3.9	U	3.9	U	3.9	U	4.3		3.9	U	4.3	
RC/WC-05	RC-05-Duplicate	Year 0 OMMP	4/8/2004	0-2 cm	7.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.9	U
RC/WC-05	RC-05	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	53	J	120	J	100	J	270	J
RC/WC-05	Y2-RC05-S	Year 2 OMMP	5/15/2006	0-2 cm	9.8	U	9.8	U	9.8	U	29	J (JP)	60		53		140	J
RC/WC-05	Y3-RC05-S	Year 3 OMMP	5/16/2007	0-2 cm	9.7	U	9.7	U	9.7	U	29	U	61		82		140	
RC/WC-05	Y4-RC05-S	Year 4 OMMP	5/6/2008	0-2 cm	9.8	U	9.8	U	9.8	U	19		44		49		110	
RC/WC-05	Y7-RC05-S	Year 7 OMMP	4/19/2011	0 - 2 cm	19	U	19	U	19	U	40		74		67		180	
RC/WC-05	Y10-RC05-S	Year 10 OMMP	4/30/2014	0 - 2 cm	9.9	U	9.9	U	9.9	U	49	Y (U)	120		83		200	
RC/WC-05	WC-05	Year 0 OMMP	4/8/2004	0-10 cm	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-05	WC-05	City Sampling	12/2/2004	0-10 cm	20	U	20	U	20	U	20	U	24		20	U	24	
RC/WC-05	WC-05	Year 1 OMMP	5/12/2005	0-10 cm	20	U	20	U	20	U	20	U	47	J	37		84	J

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	49		5.16		580		2300		10	U (UJ)	10	U	0.4	U
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	52.4		5.03											
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	43		4.16		690		3000							
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	43.5		5.6		480		3700							
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	46.9				140		710				10	U		
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	39.89		6.47		1000		4400							
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	89		0.251						6	U	6	U	0.2	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	87.9		0.527						6	U (UJ)	6	U	0.2	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	81.9		0.521											
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	44		7.37											
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	.9' core ho	71.6		6.36											
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	84.45		0.192											
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm	43.4		7.32		720		4600							
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	57.4		4.65						9	U	9	U	0.4	U
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	5.63		42.2		580		1800				10	U		
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm	58.7		5.47		380		1700		8	U (UJ)	8	U	0.3	
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm	59.8		6.67		400		1700		9	U (UJ)	9	U	0.3	U
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm	48.2		3.73		420		2900							
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm	41.1		5.65		570		2800							
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm	39.4		3.69		430		3700							
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm	35.17		5.49		890		4200							
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	49				220		870				10			
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	73		3.45						7	U	7	U	0.3	U
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	66.1		5.02		190		810		8	U (UJ)	8	U	0.3	U
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	56.9		6.58											
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	55.9		5.28		330		1600							
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	45.8		5.02		430		3600							
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	42.03		0.99		640		3000							
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	82.8		1.59						6	U	6	U	0.2	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	86.4		0.397						6	U	6	U	0.2	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft														
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	85.3		1.04						6	U (UJ)	6	U	0.2	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	88.1		1.44											
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	53.5		6.46											
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	53.9		4.94											
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	.1' core ho	82.3		1.36											
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	83.17		0.207											
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm	37.3		7.25		980		6700							
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	84.1		1.32						6	U	6	U	0.2	U
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	5.5		56.8		480		2100				10			
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm	52.7		6.01		600		2700		10	U (UJ)	10	U	0.6	
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm	52.9		5.44		310		2200							
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm	45.3		7.05		600		3100							
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm	36		7.23		450		4100							
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm	42.02		3.75		870		3900							
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	37.6				550		2100				20			
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	86.6		0.189						6	U	6	U	0.2	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	63.8				140		740				9	U		
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	2.53		80.2		140		600				7			

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm			31.6		29		0.2		11		0.6	U	63		1.4	
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm					86		0.21						255		0.6	
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm					87		0.19						282		1.2	
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm			92.6		54		0.2		30				117		0.2	
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm					110		0.24						347		1.1	
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	16.5		30.4		2	U	0.05	U	16		0.3	U	28.9		29	
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft			35.3		3		0.05	U	19		0.3	U	34.7		21.1	
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft					2	U	0.04	U					31		13.6	
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho					26		0.1						61		1.8	
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft					2	U	0.02	U					37		25.8	
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm					90		0.18						266		0.2	
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	22.9		54.5		18		0.08	U	21		0.5	U	56		2.2	
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm			100		114		0.3		32				216		0.3	
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm			56.8		47		0.11		24		0.5	U	121		3.6	
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm			57.7		47		0.12		24		0.5	U	122		6.3	
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm					86		0.18						227		4.6	
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm					93		0.2						265		1.8	
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm					108		0.16						322		0.3	
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm					117		0.21						358		4.7	
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm			94.4		83		0.24		28				153		0.9	
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	19.1		40		7		0.06	U	18		0.4	U	38.8		0.7	
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm			52.2		28		0.08		20		0.5	U	80.7		1	
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm																
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm					50		0.12						145		0.3	
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm					97		0.24						282		0.2	
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm					111		0.2						315		0.1	
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	18		40.5		3		0.04	U	18		0.3	U	39.4		28	
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	26		42.6		3		0.04	U	21		0.3	U	40		35	
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft																
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft			33.6		3		0.05	U	17		0.3	U	31.5		13.1	
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft					2	U	0.05	U					39		25.6	
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho					2	U	0.03						36		12.9	
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft					2	U	0.03	U					36		16.8	
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm					139		0.16						371		0.7	
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	19.9		49.5		6		0.05	U	19		0.3	U	40.6		26	
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm			73.9		70		0.22		25				141		11.5	
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm			69.9		70		0.15		26		0.6	U	169		4	
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm					64		0.15						173		3.7	
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm					91		0.16						256		1.5	
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm					130		0.24						379		8.2	
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm					101		0.18						353		2.7	
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm			118		140		0.4		32				238		47.3	
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	18.2		32.2		2		0.04	U	16		0.3	U	30.7		33	
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm			56		42		0.11		20				93		21.3	
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm			45.3		23		0.07		20				62.2		40.4	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	2.2	3.6	11.6	19	11.3	35.5	15.3	50.8
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.2	5.1	11.4	14.5	11.3	38.3	16.6	54.9
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	2.8	5.7	11.9	13	9.1	41.4	14.8	56.2
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	0.6	1	7.8		17.8	39.4	18.7	58.1
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	2.3	3.9	8	11.3	9.7	49.2	14.3	63.5
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft		30	22		18	0.8	0.4	1.2
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	13.9	17.9	24.7	17	2.8	2.6	0	2.6
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	8	12.7	32	27.6	4.1			2
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	4.9	8.6	26.4	27.5	6.6	14.8	9.5	24.3
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	17.9	18.9	23.6	11.2	1.5	4	3	7
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1.9	3.7	12.7	13.6	7.2	48.5	12.3	60.8
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm		2.6	17		52	14	12	26
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	1.1	5.4	15	15.7	8	39.2	15.3	54.5
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm	4.4	11	24.9	19.8	6.9	20.7	8.9	29.6
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm	4.5	10.7	23.7	20.2	6.6	19.9	8	27.9
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm	2.5	5.5	17.7	15.8	8.8	35.8	9.3	45.1
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm	0.8	4.5	13.7	14.5	7.6	39.1	17.9	57
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm	5.1	6.4	10.1	10	8.4	44.7	15.1	59.8
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1.8	2.1	5	6	6.2	65.9	8.3	74.2
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	0.6	3.2	16.5		3.4	37	15.6	52.6
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm		16	36		37	6.5	4.2	11
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	2.1	6.4	25.7	30.4	8.4	16.8	9.3	26.1
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm								
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	1.4	6.7	22.3	22.3	8.4	25.7	12.9	38.6
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	3.6	6.2	13.6	13.1	8	44	11.3	55.3
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	1.8	2.9	8.4	8.6	6.9	59.3	12.1	71.4
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft		27	21		21	2	1.2	3.2
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft		34	18		10	1.9	1.5	3.4
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft								
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	14.9	20.3	28	16.8	3.3	2	1.7	3.7
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	17.3	16.5	22.9	12.3	1.6	2.8	1.2	4
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	16.1	20	28.6	16	2.8	3.7	3.7	3.7
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19.1	22.8	27.2	11.2	1.4	6.4	4.8	11.2
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1.6	2.6	7.1	9	8.2	56.7	14.1	70.8
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm		27	22		18	3	3.2	6.2
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	5.3	9.6	23	16.6	7.8	17.3	8.9	26.2
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm	3.3	7.73	18.5	18	7.7	32.7	8.07	40.8
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm	2.6	9.6	26	17.9	6.8	22.8	10.8	33.6
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm	2.3	6.7	17.8	19.9	11.3	29.7	10.8	40.5
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm	3.4	4.4	7.4	7.8	6.9	48.8	13	61.8
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm	4.6	6.9	15.1	13.4	6.9	40.6	9.9	50.5
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	1.2	2.3	6.3		6.3	23.9	9.3	33.2
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm		37	18		9.2	2	0.5	2.5
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	2.8	6.7	24.1		3.8	11.3	6	17.3
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	8.5	10.5	21.3	10.4	1.7	4.3	2.9	7.2

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	99	U	99	U	99	U	99	U	99	U	99	U	99	U
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	92	U							92	U				
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	320	Y (U)	110	U	110	U	110	U	73	J	**160**		110	U
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm									110	U				
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	**420**	B	110	U	110	U	110	U	67	J	**310**		110	U
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft			19	U	19	U	19	U	19	U				
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									57	J				
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	50		19	U	19	U	19	U	24		19	U	19	U
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm									99	U				
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm									76					
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm									87	U				
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm									86	U				
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm									120	U				
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm									60	U				
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm									87	J				
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm									68	J				
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm									130	U				
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	85	U							85	U				
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	100	U	100	U	100	U	100	U	100	U	100	U	100	U
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	200		120	U	120	U	120	U	70	J	**82**	**J**	120	U
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	**470**	**B**	97	U	97	U	97	U	63	J	**160**		97	U
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft			20	U	20	U	20	U	20	U				
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft			20	U	20	U	20	U	20	U				
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	20	U	20	U	20	U	20	U	12	J	20	U	20	U
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									190	U				
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									120	U				
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm									99	U				
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm									69					
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm									120	U				
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm									96	U				
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm									59	U				
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm									28	J				
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm									60	J				
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm									180	U				
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm			19	U	19	U	19	U						
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm									62	U				
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm									25	U				

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroethane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	99	U	99	U	99	U	990	U	99	U	3.5	U	99	U
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	600	U	60	U	2	U	60	U
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	90	J	110	U	110	U	**660**	**J**	110	U	9.8	U	110	U
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm														
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	110	J	110	U	57	UJ (U)	**1400**		110	U	0.97	U	110	U
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft									19	U				
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	74		19	U	19	U (R)	190	U	19	U	19	U	19	U
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	19	U	19	U	24	U	190	U	19	U	0.96	U	19	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm														
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm														
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm														
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm														
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm														
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm														
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	60	U	60	U	60	U	600	U	60	U	3.4	U	60	U
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm														
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	100	U	100	U	100	U	1000	U	100	U	0.97	U	100	U
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	70	J	120	U	120	U	1200	U	120	U	9.8	U	120	U
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	97		97	U	50	UJ (U)	**1400**		97	U	0.98	U	97	U
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft									20	U				
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft									20	U				
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	19	U	19	U	190	U	19	U	19	U	19	U
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	20	U	20	U	20	U	200	U	20	U	0.97	U	20	U
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U	19	U	19	U (R)	190	U	19	U	19	U	19	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19	U	19	U	24	U	190	U	19	U	0.96	U	19	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm														
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm														
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm														
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm														
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm									19	U				
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm														
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	3.5	U	500	U	200		99	U	140		130	
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					130		92	U	81	J	51	J
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	3.6		300	U	160		60	U	69		60	U
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	9.8	U	560	U	320		62	J	85	J	90	J
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm					110		110	U	110	U	110	U
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	2.9	P (J)	560	U	260		67	J	67	J	89	J
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft					19	U	19	U	19	U	19	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	1	U	100	U	20	U	20	U	20	U	20	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	1	U	100	U	20	U	20	U	20	U	20	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					130		40	J	92		98	
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	19	U	93	U	74		19	U	38		37	
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	0.96	U	96	U	19	U	19	U	19	U	19	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm					99	U	99	U	99	U	99	U
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm					54		39	U	39	U	39	U
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm					650		100		260		200	
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm					87	U	87	U	87	U	87	U
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm					86	U	86	U	86	U	86	U
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm					160		120	U	59	J	62	J
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm					130		60	U	64		77	
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm					380		75	J	140		130	
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm					350		51	J	77	J	77	JQ (J)
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm					430		130	U	220		130	
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm					20	U	20	U	20	U	20	U
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	3.4	U	300	U	62		60	U	60	U	60	U
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm					84	J	85	U	44	J	85	U
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.6		500	U	100	U	100	U	100	U	100	U
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	9.8	U	580	U	330		64	J	93	J	100	J
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	2.9		490	U	360		97	U	73	J	88	J
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft					20	U	20	U	20	U	20	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft					20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	97	U	19	U	19	U	19	U	19	U
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	1	U	98	U	20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	0.97	U	97	U	20	U	13	J	16	J	28	
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					190	U	190	U	190	U	190	U
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					120	U	120	U	120	U	70	J
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U	97	U	19	U	19	U	19	U	19	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	0.96	U	96	U	19	U	19	U	19	U	19	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm					110		99	U	99	U	99	U
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm					19	U	19	U	19	U	19	U
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm					490		72		220		160	
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm					120	J	120	U	110	J	100	J
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm					130		96	U	61	J	52	J
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm					130		59	U	78		84	
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm					140	(J)	56	U	45	J	36	J
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm					330		150	U	83	J	68	JQ (J)
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm					860		180	U	**530**		320	
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm					19	U	19	U	19	U	19	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm					120		62	U	78		62	U
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm					120		25	U	46		29	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	**1500**		310		99	U	2300		**2700**		2400		760	
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	740		180		55	J	1200	J	1900		1600		720	
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	810		200		64		1300		2400		2000		750	
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	1300		280		110		2200	J	**3300**		**3300**		1200	
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	320		150		110	U	580		580		500		230	
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	850		200		120		1700	J	2000		2000		670	
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	11	J	20	U	20	U	11	J	27		32		12	J
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1300		250		63		2000	J	**3600**		2600		1200	
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	260		76		38		520		540		620		210	
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	19	U	19	U	19	U	19	U	6.7	J	7.7	J	19	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm	870		150		99	U	1000		1600		1600		790	
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	110		39	U	39	U	160		230		160		75	
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	1100		540		220		3100		**3100**		**3300**		1100	
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm	610		130		87	U	740		1400		1300		540	
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm	600		140		86	U	740		1300		1300		510	
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm	910		180		60	J	1400	J	2400		2100		860	
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm	940		200		60		1500		**2600**		3100		840	
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**1500**		350		150		2700	J	**3800**		**3900**		1400	
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm	970		210		150	J	1900	J	2200		2300		870	
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	740		320		130	U	1800		1200		930		500	
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	33		20	U	20	U	33		78		67		24	
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	290		85		60	U	440		760		580		270	
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	520		110		85	U	760	J	1400		1200		470	
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	560		130		100	U	690		1600		1400		560	
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	1300		290		130		2300	J	**3200**		**3300**		1200	
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	880		210		140		1800	J	1900		2100		740	
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	30		20	U	20	U	30		41		30		20	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	20	U	20	U	21		23		20	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	270		54		20	U	380	J	200		210		81	
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	580		120	J	190	U	700	J	1700		1200		600	
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	910		190		120	U	1300	J	**2600**		2100		920	
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U	19	U	19	U	19	U	24		29		19	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1100		190		99	U	1400		2100		2000		920	
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	26		19	U	19	U	26		55		39		20	
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	880		400		160		2400		2400		2400		810	
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm	800		220		120	U	1400	J	2200		1600		760	
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm	690		150		52	J	1100	J	1600		1500		640	
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm	910		210		59	U	1400		2400		2300		780	
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm	510	(J)	120	(J)	56	(J)	910	J	1300	(J)	1200	(J)	470	(J)
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm	760		260		130	J	1600	J	1600		1800		670	
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	**1800**		760		280		4600		**3100**		2200		1300	
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	270		120		62	U	590		490		380		200	
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	180		87		36		500		700		660		200	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	1800		1200		760		2000		810		230	
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	1000		1200		1100		2300		850		530	
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	1300		1200		1500		2700		1000		350	
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	2000						**3700**		960		**1200**	
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	300		200		200		400		280		190	
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	1300						2500		970		450	
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	15	J	19	J	20	U	19	J	11	J	20	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1900		1900		1900		**3800**		**1600**		570	
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	320						530		240		170	
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	19	U					38	U	19	U	19	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1400		1000		1000		2000		950		580	
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	110		91		69		160		68		44	
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	1400		1300		1300		2600		1300		340	
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm	820		750		780		1500		660		220	
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm	800		900		590		1500		640		210	
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm	1300		1400		1700		3100		990		440	
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm	1600		1000		1200		2200		1200		**950**	
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm	2400						**4300**		1300		**1300**	
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1400						2900	Q	1300		540	
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	630		510		510		1000		610		260	
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	38		28		32		60		27		18	J
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	390		400		280		680		310		150	
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	720		920		800		1700		590		210	
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	900		730		870		1600		700		400	
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	1900						**3700**		920		**1200**	
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	1300						2500		1100		660	
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	10	J	20	U	20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	84		60		47		110		60		24	
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	960		940		940		1900		800		310	
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1400		1600		1600		3200		1200		430	
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U					30		19	U	19	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19	U					38	U	19	U	19	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1600		1100		1100		2200		1100		640	
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	32		25		27		52		20		19	U
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	1000		840		810		1700		880		290	
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm	1200		890		890		1800		780		450	
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm	960		980		990		2000		770		380	
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm	1400		1200		1200		2400		1100		620	
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm	760	(J)					1300	(J)	520	Q (J)	400	(J)
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1200						2400	Q	970		410	
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	1600		1300		1300		2600		**1600**		650	
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	280		200		200		400		240		120	
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	250		220		280		500		210		52	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	99	U	280		11000		99	U	99	U	240	J (JB)
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	110	J	600		9600	J	92	U	92	U	66	J
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	68		350		11000		60	U	60	U	60	U
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	**430**		**1300**		**17000**		110	U	110	U	220	Q (J)
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	110	U	150		2600		110	U	110	U	110	U
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	150		500		11000		72	J	110	U	84	J
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	20	U	10	J	130	J	20	U	20	U	11	J
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	20	U	20	U	20	U	20	U	20	U	45	
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	200		550		16000		59	U	59	U	90	
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	47		200		2900		19	U	19	U	19	U
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	19	U	19	U	14	J	19	U	19	U	19	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm	220		620		9800							
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	39	U	43		1100		39	U	39	U	39	U
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	120		350		14000		67	U	67	U	210	
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm	87	U	280		6800							
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm	86	U	240		6500							
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm	84	J	460		12000	J						
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm	**270**		**1100**		14000							
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm	**430**		**1400**		**20000**							
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm	140	J	590		12000	J						
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	130	U	220		5400		130	U	130	U	130	U
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	20	U	18	J	350		20	U	20	U	20	U
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	60	U	200		3300		60	U	60	U	210	J (JB)
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	85	U	220		6500		85	U	85	U	85	U
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	160		420		7700		100	U	100	U	100	U
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	**440**		**1300**		**17000**		120	U	120	U	270	Q (J)
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	190		**820**		11000		97	U	97	U	110	
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	71		20	U	20	U	20	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	20	U	54	J	20	U	20	U	10	J
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	20	U	20		790		20	U	20	U	20	U
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	190	U	300		7800		190	U	190	U	190	U
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	100	J	430		12000	J	120	U	120	U	95	J
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U	19	U	83		19	U	19	U	19	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19	U	19	U	38	U	19	U	19	U	19	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**250**		700		12000							
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	19	U	19	U	270		19	U	19	U	19	U
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	88	J	300		9800		42	U	42	U	200	
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm	120	U	610		9400							
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm	77	J	400		8300	J						
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm	200		680		12000							
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm	170	(J)	480	(J)	6600							
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm	110	J	360		9500	J						
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	180	U	550		14000		180	U	180	U	180	U
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	62	U	99		2200		62	U	62	U	62	U
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	25	U	51		2600		25	U	25	U	62	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	160	J (JIS)	**3600**		150	J (JIS)	7	U	7	U	7	U	9.8	U
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	210		**4000**		130									
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	180		**5400**		220		3.9	U	3.9	U	3.9	U	10	U
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	510	Q (J)	**21000**		280		20	U	20	U	20	U	19	U
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	120		940	B	110	U	2	U	2	U	2	U	20	U
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	600		**7400**		590		11	Y (U)	5.1	Y (U)	8.7	Y (U)	28	U
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	19	U	46		19	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	20	U	63		20	U	2	U	2	U	2	U	9.6	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	20	U	20	U	20	U	2	U	2	U	2	U	10	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	370		**7900**	B	490									
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	150		860		19	U	1.9	U	1.9	U	1.9	U	9.8	U
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	19	U	28	J	19	U	0.96	U	0.96	U	0.96	U	9.5	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**5400**										12	U
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	38	J	500		38	J	0.65		0.39	U	1.7	U	3.9	U
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	350		**4400**		150		8	J	7.3	U	12	J	20	U
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm			**3900**										9.8	U
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm			**3800**										9.9	U
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm			**5600**										9.8	U
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm			**6000**										9.9	U
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm			**7900**										19	U
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**6100**										30	U
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	190		**1700**	B	130	U	2.9		1.9	U	1.9	U	19	U
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	20	U	160		20	U	0.4	U	0.4	U	0.55	U	4	U
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	110		**1600**		60	U	7	U	7	U	7	U	9.8	U
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	160		**2800**		93									
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	170		**3200**		100	U	2	U	2	U	2	U	9.9	U
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	720	Q (J)	**6200**		190		20	U	20	U	20	U	20	U
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	370		**5600**		260		11	Y (U)	4.9	Y (U)	8.4	Y (U)	28	U
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	92		20	U	0.4	U	0.4	U	0.4	U	4	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	63		20	U	0.4	U	0.4	U	0.4	U	4	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft	19	U	19	U (J)	19	U								
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	20	U	29		20	U	2	U	2	U	2	U	9.7	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	20	U	21		20	U	2	U	2	U	2	U	9.7	U
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	240		**3600**	B	160	J								
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	480		**5500**	B	250									
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	19	U	28		19	U	1.8	U	1.8	U	1.8	U	9.8	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	19	U	48	U	19	U	0.96	U	0.96	U	0.96	U	9.1	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**4900**										12	U
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	19	U	180		19		0.38	U	0.38	U	0.38	U	3.8	U
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	270		**4400**		120		4.8	J	5.8	U	7.4	U	19	U
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm			**5400**										9.9	U
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm			**3700**										9.9	U
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm			**5200**										9.8	U
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm			**3300**	B (J)									20	U
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**6900**										9.4	U
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	420		**4500**	B	180	U	3		2	U	2	U	20	U
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	100		**3800**	B	62	U	1.7	J	1.9	U	1.9	U	19	U
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	150		730		30		2	U	2	U	5	U	20	U

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	Aroclor 1221 UG/KG		Aroclor 1232 UG/KG		Aroclor 1242 UG/KG		Aroclor 1248 UG/KG		Aroclor 1254 UG/KG		Aroclor 1260 UG/KG		Total PCBs 300 UG/KG	
RC/WC-05	Y2-WC05-S	Year 2 OMMP	5/15/2006	0-10 cm	9.8	U	9.8	U	9.8	U	31	J (JP)	56		48		140	J
RC/WC-05	WC-05-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-05	Y4-WC05-Sa	Year 4 OMMP	5/6/2008	0-10 cm	10	U	10	U	10	U	20		44		42		110	
RC/WC-05	Y7-WC05-S	Year 7 OMMP	4/19/2011	0-10 cm	19	U	19	U	19	U	43		66		50		160	
RC/WC-05	RC-05	City Sampling	12/2/2004	0-11 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-05	Y10-WC05-S	Year 10 OMMP	4/30/2014	0-10 cm	28	U	28	U	28	U	42	Y (U)	110		82		190	
RC/WC-05	WCBU-5A	Year 0 OMMP	4/7/2004	0-1.3 ft	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-05	Y2-WC05-C3	Year 2 OMMP	5/17/2006	1-2.5 ft	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U
RC/WC-05	Y4-WC05-Ca5	Year 4 OMMP	5/8/2008	3.7-4.3 ft	10	U	10	U	10	U	10	U	10	U	10	U	10	U
RC/WC-05	WC-05-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-05	Y7-WC05-Ca3	Year 7 OMMP	4/21/2011	3.9' core ho	9.8	U	9.8	U	9.8	U	22		33		23		78	
RC/WC-05	Y10-WC05-Ca3	Year 10 OMMP	5/1/2014	2.7 - 3.7 ft	9.5	U	9.5	U	24	Y (U)	9.5	U	9.5	U	9.5	U	24	U
RC/WC-06	Y5-RC06-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	25	J	58		68		150	J
RC/WC-06	RC-06	Year 0 OMMP	4/8/2004	0-2 cm	7.9	U	3.9	U	3.9	U	3.9	U	9.2		3.9	U	9.2	
RC/WC-06	RC-06	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	40	J	92	J	60		190	J
RC/WC-06	Y2-RC06-S	Year 2 OMMP	5/15/2006	0-2 cm	9.8	U	9.8	U	9.8	U	26	J (JP)	49		38		110	J
RC/WC-06	Y2-RC15-S	Year 2 OMMP	5/15/2006	0-2 cm	9.9	U	9.9	U	9.9	U	26	J (JP)	42		37		110	J
RC/WC-06	Y3-RC06-S	Year 3 OMMP	5/17/2007	0-2 cm	9.8	U	9.8	U	9.8	U	29	U	54		72		130	
RC/WC-06	Y4-RC06-S	Year 4 OMMP	5/6/2008	0-2 cm	9.9	U	9.9	U	9.9	U	14		42		41		97	
RC/WC-06	Y7-RC06-S	Year 7 OMMP	4/19/2011	0 - 2 cm	19	U	19	U	19	U	44		78		68		190	
RC/WC-06	Y10-RC06-S	Year 10 OMMP	4/30/2014	0 - 2 cm	30	U	30	U	30	U	44	Y (U)	140		100		240	
RC/WC-06	RC-06	City Sampling	12/2/2004	0-5 cm	19	U	19	U	19	U	19	U	34		24		58	
RC/WC-06	WC-06	Year 0 OMMP	4/8/2004	0-10 cm	8	U	4	U	4	U	4	U	4	U	4	U	8	U
RC/WC-06	Y2-WC06-S	Year 2 OMMP	5/15/2006	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	25		19		44	
RC/WC-06	WC-06-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm														
RC/WC-06	Y4-WC06-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.9	U	9.9	U	9.9	U	12	JP (J)	33		34		79	J
RC/WC-06	Y7-WC06-S	Year 7 OMMP	4/19/2011	0-10 cm	20	U	20	U	20	U	34		68		62		160	
RC/WC-06	Y10-WC06-S	Year 10 OMMP	4/30/2014	0-10 cm	28	U	28	U	28	U	43	Y (U)	120		100		220	
RC/WC-06	WCBU-6A	Year 0 OMMP	4/7/2004	0-1 ft	8	U	4	U	4	U	4	U	4	U	4	U	8	U
RC/WC-06	WCBU-6B	Year 0 OMMP	4/7/2004	1-2 ft	8	U	4	U	4	U	4	U	4	U	4	U	8	U
RC/WC-06	Y4-WC06-Cb2	Year 4 OMMP	5/8/2008	2.3-3.0 ft														
RC/WC-06	Y2-WC06-C3	Year 2 OMMP	5/17/2006	2-3 ft	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-06	Y4-WC06-Cb3	Year 4 OMMP	5/8/2008	2.9-3.7 ft	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-06	WC-06-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-06	WC-06-260509-G-B	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-06	Y7-WC06-Cb3	Year 7 OMMP	4/21/2011	3.1' core ho	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
RC/WC-06	Y10-WC06-Ca3	Year 10 OMMP	5/1/2014	1.6 - 2.6 ft	9.1	U	9.1	U	18	Y (U)	9.1	U	9.1	U	9.1	U	18	U
RC/WC-07	Y5-RC07-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	29		66		68		160	
RC/WC-07	RC-07	Year 0 OMMP	4/8/2004	0-2 cm	7.6	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U	7.6	U
RC/WC-07	RC-07	Year 1 OMMP	5/11/2005	0-2 cm	19	U	19	U	19	U	25		46	J	49		120	J
RC/WC-07	Y2-RC07-S	Year 2 OMMP	5/16/2006	0-2 cm	9.9	U	20	U	9.9	U	20	U	43		54	J (JC)	97	J
RC/WC-07	Y3-RC07-S	Year 3 OMMP	5/16/2007	0-2 cm	9.9	U	9.9	U	9.9	U	25	Y (U)	52		53		110	
RC/WC-07	Y4-RC07-S	Year 4 OMMP	5/6/2008	0-2 cm	9.8	U	9.8	U	9.8	U	18		54		43		120	
RC/WC-07	Y7-RC07-S	Year 7 OMMP	4/20/2011	0 - 2 cm	20	U	20	U	20	U	46		100		80		230	
RC/WC-07	Y10-RC07-S	Year 10 OMMP	4/30/2014	0 - 2 cm	9.4	U	9.4	U	47	Y (U)	9.4	U	93		75		170	
RC/WC-07	RC-07	City Sampling	12/2/2004	0-4 cm	20	U	20	U	20	U	20	U	31		23		54	
RC/WC-07	WC-07	Year 0 OMMP	4/8/2004	0-10 cm	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-07	WC-07	City Sampling	12/2/2004	0-10 cm	19	U	19	U	19	U	19	U	21	J	19	U	21	
RC/WC-07	WC-07	Year 1 OMMP	5/11/2005	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm	1.1		77.3											
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	68.7		4.22		220		1100		8	U (UJ)	8	U	0.4	
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	58		4.65											
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	52.7		5.02		380		2000							
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	47.4		8.21											
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	48.5		6.01		320		2900							
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	43.05		3.78		1100		3500							
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm	46.2		7.67		790		4100							
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	79.7		0.923						6	U	6	U	0.3	U
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	4.65		41.3		1000		3200				20			
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm	52.9		5.63		550		2200		10	U (UJ)	10		0.8	
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm	47.8		3.36		490		3100							
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm	47.2		5.45		520		3100							
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm	46.5		4.95		510		2100							
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm	35		7.43		580		4800							
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm	43.15		4.99		810		3900							
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	52.1				370		850				10			
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	82.6		0.881						6	U	6	U	0.2	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm	1.4		72.5											
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	59.4		4.17		470		1800		9	U (UJ)	9	U	0.8	
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	55.6		2.71											
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	54.8		3.92		460		1700							
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	53.8		6.35											
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	53.7		5.08		290		2400							
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	44.53		5.61		680		3600							
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	52.6		6.67		260		2100							
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm	38.3		8.18		870		4600							
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	67.3		2.86						8	U	8	U	0.3	U
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	4.66		40.9		1100		3700				20			
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm	47.9		5.12		740		2800		10	U (UJ)	10	U	0.7	
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm	42.9		3.13		560		3600							
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm	39.7		5.53		710		3100							
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm	35.1		7.41		430		3600							
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm	41.99		3.72		880		4400							
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	56.4				130		350				10			
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	71.7		2.99						7	U	7	U	0.3	U
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	61.4				37		110				9			
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm	1.8		65.4											
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	59.3		4.43		350		1300		9	U (UJ)	9	U	0.7	
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	55		4.3											
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	51		3.48		500		2000							
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	46.9		5.79											
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	41.6		5.75		390		3000							
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	43.72		4.21		780		4300							
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm	59.5		6.1		280		1600							
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	68.1		3.22						7	U	7	U	0.3	U
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	4.7		44.5		1200		3800				20			
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm	84.3		2.96		110		510		6	U (UJ)	6	U	0.2	U
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm	68.4		5.27		140		1000							

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm							0.04									
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm			59		45		0.11		26		0.5	U	112		9.7	
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm					82		0.13						222		0.8	
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm					91		0.16						274		0.9	
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm					101		0.17						301		3.1	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm					88		0.19						266		0.9	
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	17.8		32.8		5		0.06	U	16		0.4	U	33		1.6	
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm			111		145		0.5		31				215		2.7	
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm			73.6		73		0.22		30		0.6	U	150		2.3	
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm					70		0.18						184		0.8	
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm					76		0.2						194		0.8	
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm					73		0.16						208		3.9	
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm					112		0.2						315		0.1	
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm					99		0.18						288		0.7	
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm			89		100		0.34		30				180		4.1	
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	17.2		33.9		4		0.05	U	16		0.3	U	31.8		19	
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm							0.07									
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm			72		64		0.19		24		0.6		134		2.8	
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm					71		0.21						176		5.5	
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm					56		0.14						166		7.4	
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm					98		0.24						291		0.5	
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm					67		0.14						187		5.2	
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm					92		0.19						286		0.1	
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	25.6		64		15		0.07	U	23		0.5	U	53.3		2.2	
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm			117		144		0.5		32				211		0.2	
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm			73.5		76		0.28		26		0.7	U	158		0.2	
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm					86		0.2						221		0.6	
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm					99		0.2						275		0.2	
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm					104		0.2						303		1.4	
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm					101		0.18						293		0.4	
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm			76.8		64		0.21		26				126		0	
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	18.4		39.8		7		0.05	U	18		0.4	U	37.4		4.4	
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm			57.4		32		0.11		22				81		1.1	
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm							0.09									
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm			70.6		66		0.18		25		0.5	U	130		0.5	
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm					71		0.2						202		0.2	
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm					93		0.18						272		0.1	
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm					104		0.22						311		0.2	
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm					39		0.09						124		42.1	
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	21.9		54.7		11		0.06	U	20		0.5		43.7		5.3	
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm			115		159		**0.6**		32				203		2.2	
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm			24.3		15		0.04	U	20		0.4	U	52		55.6	
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm					33		0.08						102		20.2	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm								
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	4.2	10.8	27.8	21.8	4.4	14.7	6.6	21.3
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.3	7.5	19.4	18.2	8.6	30.5	12.6	43.1
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	3.4	6.7	16	13.1	8.2	40.5	11.3	51.8
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	4.4	7.1	15.5	13.9	6.7	36.8	12.5	49.3
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm	2.7	5.2	13.6	12.3	8.1	39.9	17.3	57.2
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm		18	39		37	2.5	2.7	5.2
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	3.6	7.6	9.9	8	5.9	42.5	19.6	62.1
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm	2.4	7	17.8	16	7.6	31.8	15	46.8
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm	1.3	8.4	21.2	17.9	9	29.4	12	41.4
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm	1.5	8	21.2	17.7	8.9	29.6	12.4	42
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm	4	9.1	19.5	14.5	7.9	28.5	12.5	41
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm	3.9	5.6	9.1	8.9	8.4	52.4	11.7	64.1
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm	4.2	7.1	12.6	10.9	7.6	42.7	14.1	56.8
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	4.2	10.7	17.7		4.2	31.1	16	47.1
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm		28	27		23	1.6	1.7	3.3
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm								
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	2.9	7.7	20	20	8.4	24.5	13.7	38.2
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	6	11	19.5	10.9	6	26.6	14.5	41.1
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	5.7	8.8	17.4	14.3	7.8	29.4	9.1	38.5
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	3.2	6.9	14.5	11.3	7.9	43.1	12.8	55.9
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	5.4	8.6	18	14.6	7.4	32.2	8.9	41.1
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1.6	2.5	9.3	11.3	7.5	51.6	16	67.6
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm		9.3	25		39	14	10	25
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	0.5	4.6	11.5	12.3	7.2	43.6	20.2	63.8
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm	3.4	5.6	13.2	13.3	6.7	38.9	18.6	57.5
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm	1.3	6.6	17.6	16.4	8.3	34.6	14.5	49.1
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm	6.1	10.3	14.7	10.3	7.3	34.1	16.9	51
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm	3.8	5.7	7.8	9.5	7.7	52.3	11.6	63.9
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1.5	4.1	13.4	13.5	7.5	45.5	14.2	59.7
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	0.5	3.5	19.3		26.3	25.8	14.4	40.2
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm		13	26		45	7.1	4	11
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	0.6	2	17.7		34.6	19.5	11.8	31.3
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm								
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	3.1	7.4	21.7	20.3	6.8	25.9	14.4	40.3
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	4.1	10.4	20.6	14.7	7.1	27.9	15.1	43
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	3.9	5	12	14.5	9.1	44.8	10.6	55.4
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	1.7	3	10.4	11.7	8	49.5	15.5	65
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm	8.4	7.9	8.3	5.5	3.4	19.4	4.9	24.3
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm		11	16		48	12	7.6	20
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	2.7	3	9.2	11.1	6.6	44.9	20.1	65
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm	12.7	11.6	8	3.2	1.3	4.9	2.6	7.5
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm	11.1	16.1	20.9	9.4	3.7	12.6	5.9	18.5

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	83	U	83	U	83	U	83	U	83	U	83	U	83	U
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	84	U							84	U				
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									200	U				
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	150	(J)	57	U	57	U	57	U	32	J	60	(J)	57	U
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	380	B	85	U	85	U	85	U	76	J	**180**		**85**	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm									99	U				
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm									120	U				
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm									92	U				
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm									120	U				
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm									110	U				
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm									59	U				
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm									47	J				
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm									46	J				
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm									150	U				
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm			19	U	19	U	19	U						
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	94	U	94	U	94	U	94	U	94	U	94	U	94	U
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	46								24	J				
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									32	J				
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	130	(J)	39	U	39	U	39	U	29	J	37	J	39	U
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	370		99	U	99	U	99	U	79	J	**89**	**J**	99	U
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	120	(J)	39	U	39	U	39	U	27	J	45	(J)	39	U
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm									99	U				
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm									120	U				
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm									110	U				
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm									130	U				
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm									60	U				
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm									53	J				
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm									62	J				
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm									120	U				
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm									89	U				
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	90	U	90	U	90	U	90	U	90	U	90	U	90	U
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	23	J							24	J				
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									54	J				
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	180		57	U	57	U	57	U	46	J	**89**		57	U
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	230		110	U	110	U	110	U	63	J	**110**	M (J)	110	U
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm									97	U				
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm														
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm									180					
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm									26	U				
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm									67	U				

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	4-Methyl phenol 670 UG/KG		Hexachloroeth ane UG/KG		2,4-Dimethylphenol 29 UG/KG		Benzoic Acid 650 UG/KG		1,2,4-Trichloro benzene 51 UG/KG		Hexachloro butadiene 11 UG/KG		N-Nitroso diphenylamine 28 UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	83	U	83	U	83	U	830	U	83	U	3.5	U	83	U
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	600	U	60	U	0.99	U	60	U
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	57	U	57	U	57	U	370	J	57	U	57	U	57	U
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	85		85	U	43	UJ (U)	**1300**		85	U	0.97	U	85	U
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm														
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm														
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm														
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm														
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm														
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm									19	U				
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	94	U	94	U	94	U	940	U	94	U	3.5	U	94	U
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	590	U	59	U	0.98	U	59	U
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	28	J	39	U	39	U	220	J	39	U	4.8	U	39	U
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	84	J	99	U	50	UJ (U)	320	JQ (J)	99	U	0.99	U	99	U
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	29	J	39	U	39	U	250	J	39	U	4.8	U	39	U
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm														
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm														
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm														
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm														
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm														
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm														
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	90	U	90	U	90	U	900	U	90	U	3.5	U	90	U
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	600	U	60	U	2	U	60	U
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	60		57	U	57	U	500	J	57	U	57	U	57	U
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	97	J	110	U	58	UJ (U)	1100	U	110	U	2.3	U	110	U
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm														
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm														
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm														
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm					97.4		9.5	J	34.4		26.7	
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	3.5	U	410	U	90		83	U	54	J	83	U
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					120		84	U	74	J	50	J
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	0.76	J	300	U	130		60	U	120		100	
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					180	J	200	U	200	U	200	U
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	57	U	290	U	130	(J)	57	U	40	J	40	J
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	2		420	U	290		55	J	100		120	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm					110		99	U	99	U	99	U
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm					19	U	19	U	19	U	19	U
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm					960		150		430		300	
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm					330		84	J	170		130	
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm					200		120	U	87	J	74	J
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm					220		110	U	100	J	90	J
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm					120		59	U	59		59	U
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm					220		47	J	62		59	
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm					260		38	J	61	J	69	JQ (J)
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm					990		200		**710**		420	
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm					19	U	19	U	19	U	19	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm					171		36.2		64.1		43.9	
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	3.5	U	470	U	290		64	J	150		110	
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					160		31		94		57	J
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	2.2		300	U	200		59	U	86		59	U
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					110		37	J	67		67	
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	4.8	U	200	U	160	(J)	28	J	41	(J)	39	(J)
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	2		490	U	360		69	J	99		89	J
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	4.8	U	200	U	160	(J)	29	J	43	(J)	39	(J)
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm					99	U	99	U	99	U	99	U
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm					56		38	U	38	U	38	U
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm					1200		130		460		320	
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm					340		110	U	180		110	U
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm					150		130	U	130	U	130	U
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm					160		60	U	65		60	
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm					230		50	J	56	J	58	
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm					270		45	J	71	J	54	JQ (J)
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm					580		140		380		240	
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm					21		20	U	20	U	20	U
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm					190		89	U	140		89	U
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm					277		65.3		114		83.4	
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	3.5		450	U	300		90	U	170		120	
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					130		36		73	J	47	J
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	3.6		300	U	120		60	U	60	U	60	U
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					200		87	J	130		120	
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	57	U	290	U	200		40	J	49	J	49	J
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	3.6		570	U	340		63	J	85	J	85	J
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm					97	U	97	U	97	U	97	U
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm					44		19	U	22		19	U
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm					2000		310		**1000**		**640**	
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm					26	U	26	U	26	U	26	U
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm					44	J	67	U	67	U	67	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm	125		51.9		30		370		272		264		113	
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	310		110		83	U	560	J	880		700		320	
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	700		170		47	J	1200	J	1800		1400		660	
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	1300		300		67		2000		**2500**		2400		980	
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1200		250		200	U	1600	J	**3400**		2500		1200	
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	470	(J)	110	(J)	49	J	840	J	1200	(J)	1200	(J)	460	(J)
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	1200		300		93		2200	J	2200		2200		780	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1000		200		99	U	1300		1500		1600		850	
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	28		19	U	19	U	28		50		37		20	
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	**1600**		890		310		4600		**3800**		**4600**		**1600**	
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm	950		310		120		2100	J	2400		2000		930	
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm	890		200		76	J	1500	J	1900		1900		800	
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm	1000		240		93	J	1700	J	2400		2300		920	
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm	800		180		59	U	1200		2400		2000		750	
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm	900		190		88		1600	J	2100		2000		780	
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm	710		160		100	J	1400	J	1500		1500		580	
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	**1800**		**1000**		360		**5500**		**3300**		2800		1300	
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	26		19	U	19	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm	226		165		51.9		760		570		645		217	
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	710		270		99		1700	J	1600		1700		700	
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	530		160		60		1100	J	1100		1000		440	
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	570		170		76		1100		1300		1300		480	
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	780		170		49	J	1300	J	2100		1600		740	
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	410	(J)	100	(J)	57	(J)	840	J	970	(J)	1100	(J)	370	(J)
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	1200		260		150		2200	J	2200		2400		960	
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	400	(J)	100	(J)	57	(J)	830	J	940	(J)	1000	(J)	360	(J)
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm	830		170		99	U	1000		1400		1500		750	
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	74		38	U	38	U	130		120		110		51	
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	**1600**		940		380		5000		**3900**		**4700**		**1700**	
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm	940		330		120		1900		2000		2100		950	
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm	860		190		130	U	1200		2300		1900		800	
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm	800		180		65		1300		2400		1900		720	
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm	760		180		67		1400	J	1800		1700		660	
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm	800		160	J	98	J	1500	J	1500		1600		640	
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	1100		660		200		3300		**2500**		2000		950	
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	36		20	U	20	U	57		67		53		22	
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	440		250		89	U	1000		1000		690		360	
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm	382		319		89.8		1300		717		1050		323	
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	700		280		100		1700		1200		1600		660	
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	450		150		45		930	J	1100		950		380	
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	530		130		60	U	780		1400		1100		460	
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1400		350		85	J	2400	J	**3600**		2900		1400	
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	640		160		74		1200	J	1500		1600		580	
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	1100		230		120		2000	J	2000		2100		830	
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm	420		77	J	97	U	500	J	810		770		330	
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	67		26		19	U	160		91		74		36	
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	**3000**		**1900**		**720**		**9600**		**5300**		**6500**		**2500**	
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm	65		14	J	26	U	79	J	160		130		62	
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm	310		60	J	67	U	410	J	720		660		280	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm	140						250		139		90.7	
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	450		500		320		820		370		110	
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	940		1000		1200		2100		760		460	
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	1400		1400		1100		2500		1200		**720**	
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1900		1800		1800		**3600**		**1600**		600	
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	760	(J)					1400	(J)	560	(J)	480	(J)
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	1200						2300		1000		410	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1500		1000	(J)	1000	(J)	2000	(J)	990	(J)	510	(J)
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	28		20		19	J	39		19		19	U
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	1700		1700		1000		2700		**1700**		530	
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm	1300		1600		1000		2600		1100		330	
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm	1200		1400		1100		2500		1000		600	
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm	1400		1700		1400		3100		1100		420	
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm	1200		1500		1500		3000		980		330	
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm	1200						2400		970	Q (J)	580	
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm	980						2000	Q	860		520	
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	1500		1300		1300		2600		1500		600	
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm	208						300		237		115	
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	890		1000		790		1800		850		230	
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	630		770		790		1600		600		260	
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	730		940		1100		2000		700		170	
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1200		1300		1300		2600		980		360	
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	580	(J)					1200	(J)	500	(J)	280	(J)
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	1600						3300		1500		600	
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	580	(J)					1200	(J)	480	(J)	280	(J)
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1300		1300		1100		2400		960		420	
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	69		44		47		91		45		38	U
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	1800		2600		2600		**5200**		**1800**		600	
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm	1300		1600		940		2500		1200		270	
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm	1300		1200		1600		2800		950		410	
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm	1300		1500		1400		2900		1000		360	
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm	1100						2100		840	Q (J)	450	
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1100						2100	Q	1000		620	
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	1100		980		980		2000		1100		480	
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	30		34		20	U	34		21		20	U
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	420		380		380		760		410		180	
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm	276						520		386		198	
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	800		840		760		1600		800		200	
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	560		550		800		1400		500		230	
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	800		910		980		1900		660		190	
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	2100		2100		2100		**4200**		**1800**		640	
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	950						1900		750	Q (J)	400	
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	1400						3300		1400		640	
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm	570		570		360		930		400		220	
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	44		28		29		57		33		19	U
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	2600		2300		1800		**4100**		**2800**		670	
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm	94		97		56		150		59		45	
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm	450		550		460		1000		340		160	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm	19.2	J	97.2		1400							
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	83	U	130		3800		83	U	83	U	45	J
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	90	J	490		8700	J	84	U	84	U	72	J
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	**230**		**840**		13000		60	U	60	U	74	
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	**270**		590		16000		200	U	200	U	200	U
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	160	(J)	560	(J)	6800		57	U	57	U	57	U
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	140		430		11000		85	U	85	U	140	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm	110	(J)	560	(J)	9600	(J)						
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	19	U	19	U	210		19	U	19	U	19	U
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	170		510		**17000**		120	U	120	U	160	
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm	130		410		11000							
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm	**270**		650		11000							
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm	93	J	440		12000	J						
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm	68		330		11000							
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm	**240**		620		11000							
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm	140	J	570		8700	J						
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	150	U	500		14000		150	U	150	U	150	U
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	26		19	U	19	U	19	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm	34.1		129		2500							
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	94	U	280		8000		94	U	94	U	94	U
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	86		280		6000		27	U	27	U	41	
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	180		6900		59	U	59	U	59	U
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	140		320		10000		59	U	59	U	70	
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	140	(J)	310	(J)	5500		39	U	39	U	39	(J)
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	170		560		13000		99	U	99	U	140	
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	130	(J)	290	(J)	5300		39	U	39	U	31	J
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm	140		440		9300							
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	38	U	38	U	580		38	U	38	U	38	U
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	190		600		**20000**		**350**		120	U	180	
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm	110	U	320		11000							
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm	100	J	410		11000	J						
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm	94		360		11000							
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm	190		460		9300							
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm	180		**720**		9500							
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	120	U	390		10000		120	U	120	U	120	U
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	260		20	U	20	U	20	U
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	89	U	140		4000		89	U	89	U	89	U
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm	51.8	J	206		3700							
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	90	U	250		7100		90	U	90	U	340	J (JB)
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	48		240		5300		16	J	26	U	78	
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	190		6700		60	U	60	U	60	U
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	**250**		630		**18000**		95	U	95	U	110	
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	170		410		8300		57	U	57	U	77	Q (J)
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	170		530		12000		110	U	110	U	110	
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm	83	J	260		4400	J						
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	19	U	19	U	390		19	U	19	U	19	U
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	**240**		620		**25000**		150	U	150	U	250	
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm	26	U	61		760							
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm	35	J	170		3800	J						

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm			557				0.56	J	1.87	J			6.5	U
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	120		**1800**		53	J	7	U	7	U	7	U	9.8	U
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	240		**3600**		130									
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	200		**4700**		110		2	U	2	U	2	U	9.8	U
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	440		**7100**	B	300									
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	150	Q (J)	**2600**	B (J)	57	U	9.8	U	9.8	U	9.8	U	20	U
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	380		**5200**		250		12	Y (U)	4.4	Y (U)	8.1	Y (U)	29	U
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**3800**										12	U
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	19	U	110		19	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	370		**3500**		130		11	J	9	U	14	U	20	U
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm			**5400**										9.8	U
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm			**4300**										9.9	U
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm			**5100**										9.8	U
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm			**4500**										9.9	U
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm			**5000**	B									20	U
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm			**3800**										29	U
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	400		**3100**	B	150	U	3.5		2	U	2	U	19	U
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	19	U	49		19	U	0.38	U	0.38	U	0.38	U	3.8	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm			220				5.68		4.28				39.4	U
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	170		**3400**		130		7	U	7	U	7	U	9.8	U
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	150		**2000**		54	J								
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	150		**2500**		84		5.8	Y (U)	2	U	2	U	9.8	U
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	230		**4200**	B	200									
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	120	Q (J)	**2100**	B (J)	39	U	9.6	U	9.6	U	9.6	U	20	U
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	300		**6200**	B	220		0.99	U	4.2	Y (U)	7.1	Y (U)	29	U
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	160	Q (J)	**2100**	B (J)	39	U	9.6	U	9.6	U	22	Y (U)	19	U
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**5100**										12	U
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	38	U	230		38	U	0.88		0.38	U	1.7	U	3.8	U
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	360		**3500**		170		14	J	11	U	18	U	20	U
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm			**4700**										9.8	U
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm			**6200**										9.8	U
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm			**5100**										9.9	U
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm			**4900**	B									19	U
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm			**5700**										29	U
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	290		**2600**	B	120	U	3.9		1.9	U	1.9	U	19	U
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	20	U	120		20	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	130		900	B	89	U	2	U	2	U	2	U	20	U
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm			289				1.12	J	1.7	J			37.9	U
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	210	J (JIS)	**4700**		120	J (JIS)	7	U	7	U	7	U	9.7	U
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	120		**2200**		74	J								
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	150		**3100**		110		4	U	4	U	4	U	9.9	U
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	390		**7300**	B	320									
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	260	Q (J)	**3900**	B	57	U	9.6	U	9.6	U	9.6	U	20	U
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	410		**6400**	B	300		2.3	U	6.1	Y (U)	12	Y (U)	28	U
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**1400**										12	U
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	19	U	80		19	U	0.55		0.39	U	0.39	U	3.9	U
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	390		**3600**		150	U	**17**	**J**	12	U	20	U	20	U
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm			420										9.9	U
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm			**1600**										9.8	U

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	Aroclor 1221 UG/KG		Aroclor 1232 UG/KG		Aroclor 1242 UG/KG		Aroclor 1248 UG/KG		Aroclor 1254 UG/KG		Aroclor 1260 UG/KG		Total PCBs 300 UG/KG	
RC/WC-07	WC-7	Year 1 OMMP	5/11/2005	0-10 cm	6.5	U	6.5	U	6.5	U	6.5	U	26.2		28.9		55	
RC/WC-07	Y2-WC07-S	Year 2 OMMP	5/16/2006	0-10 cm	9.8	U	20	U	9.8	U	20	U	38		50	J (JC)	88	J
RC/WC-07	WC-07-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-07	Y4-WC07-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	20		48		44		110	
RC/WC-07	WC-07-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-07	Y7-WC07-S	Year 7 OMMP	4/20/2011	0-10 cm	20	U	20	U	20	U	41		83		61		190	
RC/WC-07	Y10-WC07-S	Year 10 OMMP	4/30/2014	0-10 cm	29	U	29	U	29	U	43	Y (U)	94		77		170	
RC/WC-08/R-03	Y5-RC08-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	18		39		50		110	
RC/WC-08/R-03	RC-08	Year 0 OMMP	4/8/2004	0-2 cm	7.7	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.7	U
RC/WC-08/R-03	RC-08	Year 1 OMMP	5/11/2005	0-2 cm	20	U	20	U	20	U	45		75	J	68		190	J
RC/WC-08/R-03	Y2-RC08-S	Year 2 OMMP	5/12/2006	0-2 cm	9.8	U	9.8	U	9.8	U	22		50		40		110	
RC/WC-08/R-03	Y3-RC08-S	Year 3 OMMP	5/16/2007	0-2 cm	9.9	U	9.9	U	9.9	U	35	Y (U)	56		80		140	
RC/WC-08/R-03	Y3-RC15-S	Year 3 OMMP	5/16/2007	0-2 cm	9.8	U	9.8	U	9.8	U	19	(JC)	49		66		130	(JC)
RC/WC-08/R-03	Y4-RC08-S	Year 4 OMMP	5/6/2008	0-2 cm	9.9	U	9.9	U	9.9	U	17		44		44		110	
RC/WC-08/R-03	Y7-RC08-S	Year 7 OMMP	4/20/2011	0 - 2 cm	20	U	20	U	20	U	50		110		90		250	
RC/WC-08/R-03	Y10-RC08-S	Year 10 OMMP	4/29/2014	0 - 2 cm	29	U	29	U	29	U	37	Y (U)	99		75		170	
RC/WC-08/R-03	RC-08	City Sampling	12/1/2004	0-5 cm	19	U	19	U	19	U	25		32		21	J	78	
RC/WC-08/R-03	WC-08	Year 0 OMMP	4/8/2004	0-10 cm	7.6	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U	7.6	U
RC/WC-08/R-03	WC-8	Year 1 OMMP	5/11/2005	0-10 cm	39.4	U	39.4	U	39.4	U	39.4	U	21.6	U	67.4	J	67	J
RC/WC-08/R-03	Y2-WC08-S	Year 2 OMMP	5/12/2006	0-10 cm	9.8	U	9.8	U	9.8	U	18		47		46		110	
RC/WC-08/R-03	WC-08-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-08/R-03	Y4-WC08-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	20		46		52		120	
RC/WC-08/R-03	WC-08-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-08/R-03	Y7-WC08-S	Year 7 OMMP	4/20/2011	0-10 cm	20	U	20	U	20	U	32	P (J)	76		56		160	
RC/WC-08/R-03	Y10-WC08-S	Year 10 OMMP	4/29/2014	0-10 cm	29	U	29	U	29	U	37	Y (U)	92		78		170	
WC-15	Y7-WC15-SD (Dup of WC08	Year 7 OMMP	4/20/2011	0-10 cm	19	U	28	Y (U)	19	U	19	U	70		51		120	
RC/WC-09	Y5-RC09-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	23	J	58		56		140	J
RC/WC-09	RC-09	Year 0 OMMP	4/8/2004	0-2 cm	7.6	U	3.8	U	3.8	U	3.8	U	6.5		3.8	U	6.5	
RC/WC-09	RC-09	Year 1 OMMP	5/11/2005	0-2 cm	20	U	20	U	20	U	46		90	J	83		220	J
RC/WC-09	Y2-RC09-S	Year 2 OMMP	5/15/2006	0-2 cm	9.8	U	9.8	U	9.8	U	46	J (JP)	94		86		230	J
RC/WC-09	Y3-RC09-S	Year 3 OMMP	5/16/2007	0-2 cm	9.8	U	9.8	U	9.8	U	29	Y (U)	60		62		120	
RC/WC-09	Y4-RC09-S	Year 4 OMMP	5/6/2008	0-2 cm	9.9	U	9.9	U	9.9	U	24		56		60		140	
RC/WC-09	Y7-RC09-S	Year 7 OMMP	4/20/2011	0 - 2 cm	19	U	19	U	19	U	46		110		82		240	
RC/WC-09	Y10-RC09-S	Year 10 OMMP	4/29/2014	0 - 2 cm	29	U	29	U	29	U	36	Y (U)	100		89		190	
RC/WC-09	RC-09	City Sampling	12/1/2004	0-6 cm	19	U	19	U	19	U	25		42		27		94	
RC/WC-09	WC-09	Year 0 OMMP	4/8/2004	0-10 cm	7.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.9	U
RC/WC-09	WC-09	City Sampling	12/1/2004	0-10 cm	20	U	20	U	20	U	18	J	28		18	J	64	
RC/WC-09	WC-9	Year 1 OMMP	5/11/2005	0-10 cm	37.9	U	37.9	U	37.9	U	37.9	U	20.8	U	107	J	110	J
RC/WC-09	Y2-WC09-S	Year 2 OMMP	5/15/2006	0-10 cm	9.7	U	9.7	U	9.7	U	32	J (JP)	56		48		140	J
RC/WC-09	WC-09-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
RC/WC-09	Y4-WC09-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.9	U	9.9	U	9.9	U	17		43		56		120	
RC/WC-09	WC-09-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-09	Y7-WC09-S	Year 7 OMMP	4/20/2011	0-10 cm	20	U	20	U	20	U	39		88		70		200	
RC/WC-09	Y10-WC09-S	Year 10 OMMP	4/29/2014	0-10 cm	28	U	28	U	28	U	42	Y (U)	110		87		200	
RC/WC-10	Y5-RC10-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	12	U	27		28		55	
RC/WC-10	RC-10	Year 0 OMMP	4/9/2004	0-2 cm	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-10	RC-10	Year 1 OMMP	5/11/2005	0-2 cm	20	U	20	U	20	U	52		110	J	110		270	J
RC/WC-10	Y2-RC10-S	Year 2 OMMP	5/16/2006	0-2 cm	9.9	U	9.9	U	9.9	U	9.9	U	11	J	17	J	28	J
RC/WC-10	Y3-RC10-S	Year 3 OMMP	5/16/2007	0-2 cm	9.8	U	9.8	U	9.8	U	9.8	U	20	(JC)	20		40	(JC)

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm	58.8		4.95		270		1400							
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	64.3		7.01		180		940							
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm	56.4		5.97		210	U	1200							
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm	70.02		1.72		170		820							
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	88.22		0.16											
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	49.6				520		1700				10			
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	79.4		1.4						6	U	6	U	0.3	U
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	78.3				110		250				7			
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm	74.4		1.4											
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	84.1		1.99		68		290		6	U (UJ)	6	U	0.2	U
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	86.6		0.861											
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	86.3		1.47		72		360							
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	82.2		0.992		71		360							
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	65.6		5.02		180	U	1000							
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	84.35		1.63		110		540							
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	88.7		0.402						5	U	5	U	0.2	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	88.3		0.323						6	U	6	U	0.2	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	94.7		0.145						5	U	5	U	0.2	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	87.4		0.225						5	U (UJ)	5	U	0.2	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	93.1		0.299						5	U	5	U	0.2	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	88.2		0.233											
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	79.9		2.62											
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	85.7		0.22											
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm	39.9		8.9		1500		7900							
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	67.6		2.95						8	U	20		0.5	
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	58.9		1.6											
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm	71.3										18			
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm	39.1		3.2											
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	34.4										20			
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	4.52		41.8		2200		5700				20			
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm	84.9		4.32		140		660		6	U (UJ)	6	U	0.2	U
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm	48		6.08		490		3000							
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm	35.6		6.65		850		4600							
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm	34.3		7.28		440		3500							
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm	35		5.08		940		4600							
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	84.2		2.07						6	U	16		0.2	U
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	66.3		3.6											
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	54		2.8											
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	60.4				190		545				15			
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm	59.6		4.8											
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	5.84		42.9		2100		5300				20			
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	86.1		3.64		130		580		6	U (UJ)	6	U	0.2	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	86.3		2.86		140		570		6	U (UJ)	6	U	0.2	U
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	87.1		0.764											
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	54.1		5.36		380		1900							
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	68.5		6.19											
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	44.5		7.44		310		2500							
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	37.49		4.88		900		4400							
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm	48.5		7.1		430		2300							

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm					33		0.08						99		53	
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm					36		0.1						106		53.1	
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm					49		0.25						136		3.4	
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm					28		0.08						87		24.2	
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft					2	U	0.02	U					36		37	
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm			95.3		123		0.48		27				182		6.9	
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	19.1		35.9		4		0.06	U	17		0.4	U	34.5		7.9	
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm			48.2		27		0.13		19				66		10.5	
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm					30.8		0.06						54.9	B		
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm			20.6		12		0.05	U	18		0.4	U	44		47.4	
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					10		0.04	U					49		61.1	
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm					11		0.05	U					51		61.3	
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm					9		0.05	U					51		62.3	
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm					39		0.08						103		15.1	
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm					19		0.04						64		49.1	
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	17.4		31.2		3		0.04	U	17		0.3	U	33.7		11	
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	16.1		31.2		3		0.04	U	17		0.3	U	31		14	
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	20.2		46.7		2		0.05	U	20		0.3	U	35.6		34	
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft			37.8		2		0.05	U	20		0.3	U	33.7		26.2	
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	13.1		21.1		2	U	0.04	U	12		0.3	U	19.9		35	
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft					2	U	0.04	U					32		28.7	
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho					2	U	0.02	U					35		39	
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm					118		0.21						353		6.2	
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	25.2		132		35		0.13		28		0.5	U	82.8		48	
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm					45.7		0.191						99.6			
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm			127		30		0.1		22				86.3			
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm					160		**0.828**						205			
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm			168		238		**0.8**		37				280			
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm			132		178		**0.84**		35				231		0.2	
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm			25.3		13		0.06	U	18		0.4	U	56.9		59.6	
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm					73		0.19						195		9.7	
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm					106		0.29						273		1.43	
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm					123		0.23						325		1	
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm					124		0.47						332		17.5	
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	21.5		168		14		0.05		24		0.4	U	60.5		57	
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm					43.7		0.147						90.3			
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm					167		0.428						239			
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm			139		91		0.36		25				135		36.3	
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm					158		0.24						168	B		
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm			145		212		**0.7**		35				257		1	
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm			17.9		11		0.06	U	16		0.4	U	44.2		49.4	
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm			20.5		11		0.05		20		0.4	U	41.6		53.7	
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					12		0.05	U					53		60.3	
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm					60		**1.65**						165		31.3	
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm					77		0.2						193		12.7	
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm					117		0.27						317		5.1	
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm					61		0.14						181		10.5	

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
					Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm	11.3	7.7	4.7	2.2	2.3	12.6	6.1	18.7
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	10.6	7.9	4.9	2.3	2.4	12.8	6	18.8
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm	3.5	10.4	23.7	18.5	7.1	22.5	10.9	33.4
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm	8.8	14.9	18.6	12.9	3.6	9.7	7.4	17.1
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19.1	17.3	17.5	7.2	0.5	5.6	4.2	9.8
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	1.8	4.7	15.1		5.6	35.6	16.3	51.9
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm		18	29		38	4.3	2.8	7.1
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	6.6	10.7	26.3		5.6	9.7	5.3	15
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm								
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	11.5	15.5	15.4	4.6	1	2.9	1.8	4.7
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	11.9	9.6	8.8	3.6	1	2.4	1.4	3.9
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	14.2	10.2	6.6	1.6	0.7	3.5	1.8	5.3
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	14.1	10.2	6.5	1.6	0.6	2.8	1.8	4.6
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	8.6	13	19.2	13.5	5.4	18.3	7	25.3
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	10.9	11.4	11	6.6	1.8	5.3	3.7	9
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft		24	31		32	1.5	0.6	2.1
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft		23	31		31	1.1	0.7	1.8
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft		35	20		10	0.2	0.6	0.8
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	13.7	19.4	25.9	12.5	1.3	1	0	1
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft		40	17		7.2	0.4	0.9	1.3
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	18.5	17.6	21.4	10.9	1.1			1.8
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	14.7	16.1	19	9.3	0.8	1.1	1.1	1.1
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm	3.2	3.3	3.2	3.6	3.6	50.5	26.3	76.8
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm		17	0.7		10	15	9	24
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm								
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm								
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm								
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm								
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	0.8	2	3.5	6.2	8.1	54.6	24.6	79.2
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm	10.4	10.7	7.1	2.4	1	5.7	3	8.7
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm	6.5	12.6	12.2	5.2	4.2	35.7	13.9	49.6
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm	1.1	4.13	5.8	5.1	5.3	58.3	18.9	77.1
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm	5.1	4.9	5.4	5	4.5	54.1	19.9	74
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm	2	2.9	4.3	3.8	4.3	49.3	16	65.3
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm		18	4.5		7.7	8.6	4.4	13
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm								
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm								
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	6	5.4	7.2		7.1	20.3	12.4	32.7
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm								
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	0.8	2.2	4.4	6.8	7.8	52.5	24.4	76.9
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	15.4	14.4	9.4	2.6	1	5.5	2.6	8.1
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	13.3	14.1	8.3	2.3	0.9	5	2.3	7.3
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	13.7	10.7	7.8	1.9	0.5	3.1	1.9	5.1
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.1	8.9	8.5	3.9	2.8	24.4	11	35.4
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	5.8	5.7	6.9	5	4.4	45.7	13.8	59.5
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	2.5	3.5	5.1	4.7	4.9	58.9	15.3	74.2
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm	7.6	13.7	17.9	8.4	3.5	27.3	11.1	38.4

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm									160	U				
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm									28					
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm									98	U				
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm									190					
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm			20	U	20	U	20	U						
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm									67	U				
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm									30.4	J				
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	20	U	20	U	20	U	64		20	U	20	U
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	62		19	U	19	U	19	U	15	J	20		19	U
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	56	U	56	U	56	U	56	U	56	U	56	U	56	U
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft			20	U	20	U	20	U	20	U				
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft			20	U	20	U	20	U	20	U				
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft			20	U	20	U	20	U	20	U				
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft			19	U	19	U	19	U	19	U				
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									200	U				
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U	18	U	18	U	18	U	18	U	18	U	18	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm									98	U				
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm									99	U				
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm									200	U				
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm			79		79		85		**740**					
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm									**800**					
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm									190					
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm									48	U				
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm									60	U				
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm									120	U				
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm									120	U				
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm									80	J				
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm			39	U	39	U	39	U						
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm			5.87		5.8		4.68		18					
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm			78		78		**78**		340					
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm									83					
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm									34	UJ				
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm									180					
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	44	U	44	U	44	U	44	U	44	U	44	U	44	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	44	U	44	U	44	U	44	U	44	U	44	U	44	U
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	22		20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									110	U				
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	160	(J)	56	U	56	U	56	U	34	J	65	(J)	56	U
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	360		130	U	130	U	130	U	89	J	**150**	**M (J)**	130	U
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm									100	U				

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroeth ane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	59	U	59	U	59	U	590	U	59	U	0.98	U	59	U
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm														
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19	U	19	U	23	U	190	U	19	U	1	U	19	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm														
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm									20	U				
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm														
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm														
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	20	U	20	U	200	U	20	U	3.5	U	20	U
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	20	U	20	U	20	U	200	U	20	U	0.95	U	20	U
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	20	U	20	U	20	U	200	U	20	U	0.96	U	20	U
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	35		19	U	19	U	130	J	19	U	4.8	U	19	U
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	56	U	56	U	29	UJ (U)	560	U	56	U	0.94	U	56	U
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft									20	U				
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft									20	U				
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft									20	U				
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft									19	U				
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U	18	U	18	U (R)	180	U	18	U	18	U	18	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm														
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm														
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm														
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm									**85**					
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm														
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm														
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm														
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm														
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm														
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm									39	U				
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm									5.85					
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm									**78**					
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm														
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm														
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	44	U	44	U	44	U	440	U	44	U	3.4	U	44	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	44	U	44	U	44	U	440	U	44	U	3.4	U	44	U
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	14	J	20	U	20	U	200	U	20	U	20	U	20	U
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	60	U	60	U	60	U	600	U	60	U	0.98	U	60	U
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	45	J	56	U	56	U	350	J	56	U	56	U	56	U
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	95	J	130	U	65	UJ (U)	410	JQ (J)	130	U	2.5	U	130	U
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm					160	U	160	U	160	U	160	U
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	1.5		300	U	59	U	59	U	59	U	59	U
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm					150		19	U	45		39	
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm					78	J	98	U	98	U	98	U
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	1	U	93	U	19	U	19	U	19	U	19	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm					1800		410		**1600**		**870**	
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm					22		20	U	20	U	20	U
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm					270		67	U	240		130	
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm					274		90	U	201		115	
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	3.5	U	98	U	13	J	20	U	78		120	
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	99	U	12	J	20	U	20	U	20	U
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	0.95	U	98	U	20	U	20	U	20	U	20	U
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	0.7	J	98	U	20	U	20	U	20	U	20	U
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	4.8	U	96	U	84		22		27		25	
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	0.94	U	280	U	48	J	56	U	17	J	17	J
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft					20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft					20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft					20	U	20	U	20	U	20	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	1	U	97	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft					19	U	19	U	19	U	19	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	1	U	100	U	14	J	20	U	20	U	20	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					200	U	200	U	200	U	200	U
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U	93	U	18	U	18	U	18	U	18	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm					100		98	U	98	U	98	U
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm					110		39	U	42		39	U
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm					210		99	U	99		99	U
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm					200	U	200	U	200	U	200	U
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm					**3700**		410		**3100**		**2300**	
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm					**4500**		980		**5500**		**3200**	
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm					1800		360		**1400**		**800**	
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm					48	U	48	U	48	U	48	U
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm					120		60	U	60		52	J
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm					260		120	U	200		120	
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm					270	(J)	63	J	98	J	81	J
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm					540		80	J	130	J	130	JQ (J)
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm					41		39	U	39	U	39	U
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm					115		45.3		106		58.2	
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm					2000		220		**1500**		**970**	
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm					500		160		**670**		360	
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm					303		125		205		141	
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm					689		400		**608**		**710**	
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	3.4	U	220	U	44	U	44	U	44	U	44	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	3.4	U	220	U	44	U	44	U	44	U	44	U
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	99	U	11	J	20	U	20	U	20	U
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	3.7	P (J)	300	U	84		60	U	60	U	60	U
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					110	U	110	U	110	U	110	U
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	56	U	280	U	230	(J)	45	J	62	(J)	54	J
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	2.5	J	630	U	680		130		200		150	
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm					110		100	U	100		100	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm	460		160	U	160	U	460		1200		1200		450	
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	310		71		59	U	380		810		740		300	
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm	470		120		53		880		1000		980		370	
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm	190		49	J	34	J	350	J	360		380		150	
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	**3500**		**2200**		**690**		**11000**		**5500**		**4500**		**2400**	
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	46		20		20	U	88		53		61		22	
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	570		340		110		1700		960		740		400	
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm	507		268		125		1500		634		823		286	
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	680		80		20	U	970	J	580		300		120	
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	94		18	J	20	U	120	J	210		180		82	
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	110		28		20	U	140		280		250		98	
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	93		21		20	U	110		250		230		89	
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	260		68		30		520		580		610		230	
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	140		39	J	22	J	280	J	240		260		100	
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	20	U	20	U	20	U	14	J	20	U	20	U	20	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	230		200	U	200	U	230		630		460		220	
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U	18	U	18	U	18	U	18	U	18	U	18	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm	850		190		98	U	1100		1200		1400		760	
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	130		56		39	U	340		200		150		78	
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	430		180		99	U	920		680		1000		330	
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm	240		200	U			240		520		360		200	U
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm	**17000**		**4400**		**2200**		**31000**		**4400**		**19000**		**5800**	
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	**15000**		**5800**				**35000**		**12000**		**11000**		**5200**	
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	**2900**		**1900**		**700**		**9900**		**5400**		**6700**		**2400**	
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm	110		48	U	48	U	110		290		200		82	
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm	630		150		48	J	1000	J	1500		1400		610	
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm	1400		430		130		2500		**3400**		**3300**		1200	
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm	680	(J)	210	(J)	110	J	1500	J	1400	(J)	1600	(J)	560	(J)
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm	930		300		240		2400	J	1900		2600		720	
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	53		39	U	39	U	94		110		73		41	
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	330		146		55.3		800		452		490		163	
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**6000**		**2200**		570		**13000**		**3800**		**9400**		**2100**	
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	**1500**		880		200		4300		1900		2000		860	
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm	435		259		118		1600		876		947		357	
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	**2800**		**999**		**690**		**9200**		**5500**		**7500**		**2600**	
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	91		44	U	44	U	91		240		180		71	
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	89		44	U	44	U	89		240		180		74	
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	67		14	J	20	U	92	J	170		160		70	
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	400		120		60	U	600		1000		1000		410	
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	320		79	J	110	U	400	J	860		750		320	
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	430	(J)	130	(J)	82	(J)	1000	J	910	(J)	1100	(J)	380	(J)
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	1200		400		250		3000		1900		2600		820	
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm	710		200		100	U	1100		1100		1300		490	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm	780		600		740		1300		590		510	
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	500		420		440		860		380		320	
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm	580						1200		490	Q (J)	220	
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm	220						510	Q	230		88	J
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19	U					37	U	19	U	19	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	2500		2000		2000		**4000**		**2700**		**930**	
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	28		20	U	20	U	20	U	22		20	U
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	460		350		350		700		450		150	
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm	328						440	U	312		144	
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	160		110		130		240		88		29	
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	130		100		160		260		98		72	
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	170		140		160		300		130		110	
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	150		150		130		280		120		98	
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	360						740		300	Q (J)	150	
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	150						340		140		73	
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	340		350		350		700		280		120	J
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U					18	U	18	U	18	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1500		1100		1100		2200		990		420	
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	100		74		66		140		73		39	U
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	420						700		350		220	
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm	230		200	U	200	U	200	U	220		200	U
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm	**6300**						**8100**		**5500**		**2500**	
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	**5300**		3600		3600		**7200**		**5100**		**1800**	
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	2600		1900		1900		**3800**		**2600**		**700**	
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm	170		140		120		260		99		49	
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm	1000		1300		980		2300		750		350	
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm	2100		1900		1700		**3600**		**1700**		**1200**	
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm	970	(J)					1800	(J)	750	(J)	480	(J)
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1100						2200	Q	1100		590	
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	52		39	U	44		44		41		39	U
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	195						280		170		115	
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	2400						**3900**		**2600**		**1300**	
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	910		720		720		1400		990		390	
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm	471						520		379		179	
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	**2800**		2000		2000		**4000**		**2800**		**760**	
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	140		120		120		240		86		42	J
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	140		160		86		250		90		41	J
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	110		78		150		230		82		54	
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	670		650		550		1200		540		430	
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	540		620		620		1200		440		210	
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	630	(J)					1200	(J)	520	(J)	360	(J)
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	1300						3000		1300		440	
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm	820		340		340		680		700		270	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm	**230**		580		6900							
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	120		390		4400		59	U	59	U	59	U
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm	94		230		5200							
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm	98	U	88	J	2000	J						
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19	U	19	U	37	U	19	U	19	U	19	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	220		660		**23000**		180	U	180	U	470	B
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	20	U	20	U	190		20	U	20	U	20	U
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	67	U	120		4000		67	U	67	U	67	U
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm	86.7		168		2800		25.5	U	47	UJ	50.5	UJ
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	36		1600		20	U	20	U	18	J
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	24		80		1100		20	U	20	U	20	U
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	43		130		1500		20	U	20	U	20	U
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	40		120		1400		20	U	20	U	20	U
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	66		150		3200		19	U	12	J	35	Q (J)
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	31	J	73		1400	J	56	U	56	U	56	U
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	20	U	20	U	20	U	20	U	21		20	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	20	U	20	U	20	U	20	U	20	U	35	
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	200	U	120	J	2900	J	200	U	200	U	200	U
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U	18	U	18	U	18	U	18	U	18	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm	170		470		9100							
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	39	U	39	U	880		39	U	39	U	39	U
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	99	U	280		4000		19		99	U	99	U
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm	200	U	200	U	1300		200	U	200	U	200	U
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm	**950**		**2900**		**55000**		79	U	79	U	190	
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	**550**		**1500**		**50000**		470	U	470	U	470	U
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	**240**		650		**25000**		37	U	37	U	110	
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm	48	U	61		1200							
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm	79		380		8300							
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm	**400**		**1600**		**19000**							
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm	200	(J)	580	(J)	8300							
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm	160	J	630		11000	J						
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	39	U	39	U	410		39	U	39	U	39	U
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	54.6		130		2000		13.5	U	24.9	U	12.5	U
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**340**		**1500**		**27000**		78	U	78	U	120	
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	90		290		8900		26	U	26	U	27	
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm	69		211		4000		32	U	59.1	UJ	56.3	UJ
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	79.8		**803**		**27000**		38	U	38	U	160	
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	44	U	48		1000	J	44	U	44	U	44	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	44	U	51		1100	J	44	U	44	U	63	J (JB)
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	12	J	64		950	J	20	U	20	U	20	U
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	160		540		6000		60	U	60	U	60	U
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	110	U	230		4600		110	U	110	U	110	U
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	160	(J)	430	(J)	5700		56	U	56	U	31	J
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	130		490		12000		130	U	130	U	120	J
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm	120		300		5800							

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm			**2500**										9.9	U
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	74		**1600**		59	U	2	U	2	U	2	U	9.8	U
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm			**1800**	B									19	U
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm			880										9.8	U
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	19	U	46	U	19	U	1	U	1	U	1	U	9.2	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	360		**2800**	B	180	U	7		2	U	2	U	20	U
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	20	U	63		20	U	0.4	U	0.4	U	0.4	U	4	U
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	67	U	620	B	67	U	1.3	J	2	U	2	U	20	U
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm	27.9	U	464		24	U	1.98	J	1.66	J	5.91		3.7	U
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	26		460		30		7	U	7	U	7	U	9.9	U
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	24		410		12	J	2	U	2	U	2	U	9.9	U
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	27		540		20	U	7.68	P	4.67		1.9	U	9.7	U
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	32		490		20	U	1.9	U	1.9	U	1.9	U	9.6	U
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	96	Q (J)	1100	B	19	U	9.6	U	9.6	U	9.6	U	19	U
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	56		480		56	U	0.94	U	0.94	U	1.9	Y (U)	8.6	U
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	20	U	69		20	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	20	U	75		20	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	20	U	20	U	20	U	0.4	U	0.4	U	0.4	U	4	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	20	U	38		20	U	2	U	2	U	2	U	9.8	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	19	U	37		19	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	20	U	13	J	20	U	2	U	2	U	2	U	10	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	200	U	1000	B	200	U								
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	18	U	18	U	18	U	1.8	U	1.8	U	1.8	U	8.8	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**5400**										12	U
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	39	U	280		39	U	1.7		1.6	U	2.4	U	3.9	U
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	220		**1600**		140		2.4	U	2.4	U	3.6		13	U
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm	200	U	940		200	U	3.2	U	3.2	U	3.2	U	32	U
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm	**1200**		**12000**		1800		**20.9**		**11.3**		18.6		19	U
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	820		**6400**		470	U	**29**		10	U	21	U	33	U
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	480		**3500**		99		**27**	**J**	18	U	33	U	20	U
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm			1100										9.8	U
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm			**6100**										9.9	U
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm			**10000**										9.9	U
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm			**5500**	B (J)									20	U
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm			**6600**										30	U
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	39	U	220		39	U	0.54		0.38	U	0.96	U	3.8	U
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	14.8	U	447	B	12.7	U	0.859		0.286	U	0.336	U	4.18	U
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**940**		**4300**		1500		14.7		8.4		13.8		17	U
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	210		**1500**		26	U	6.5		1.9	U	1.9	U	19	U
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm	186	J	675		88.6	J	13.3		**11**		16		4.9	U
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	520		**3500**		80		**19**	**J**	**19.3**		23	U	20	U
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	51		960		84		7	U	7	U	7	U	9.7	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	41	J	990		86		7	U	7	U	7	U	10	U
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	29		640		30		1.9	U	1.9	U	1.9	U	9.7	U
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	140		**3500**		130		2	U	2	U	2	U	9.8	U
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	180		**3500**	B	220									
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	130	Q (J)	**3600**	B (J)	56	U	9.8	U	9.8	U	9.8	U	19	U
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	370		**6500**	B	480		2.5	U	5.9	Y (U)	11	Y (U)	29	U
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**2600**										12	U

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	Aroclor 1221 UG/KG		Aroclor 1232 UG/KG		Aroclor 1242 UG/KG		Aroclor 1248 UG/KG		Aroclor 1254 UG/KG		Aroclor 1260 UG/KG		Total PCBs 300 UG/KG	
RC/WC-10	Y4-RC10-S	Year 4 OMMP	5/6/2008	0-2 cm	9.9	U	9.9	U	9.9	U	6.3	J	16		16		38	J
RC/WC-10	Y4-RC15-SD	Year 4 OMMP	5/6/2008	0-2 cm	9.8	U	9.8	U	9.8	U	9.8	U	12		14		26	
RC/WC-10	Y7-RC10-S	Year 7 OMMP	4/20/2011	0 - 2 cm	19	U	19	U	19	U	19	U	57		41		98	
RC/WC-10	Y10-RC10-S	Year 10 OMMP	4/30/2014	0 - 2 cm	9.8	U	9.8	U	9.8	U	12	Y (U)	27		24		51	
RC/WC-10	Y10-WC10-Cb3	Year 10 OMMP	5/1/2014	2.4 - 3.4 ft	9.2	U	28	Y (U)	9.2	U	9.2	U	9.2	U	9.2	U	28	U
RC/WC-10	RC-10	City Sampling	12/1/2004	0-3 cm	20	U	20	U	20	U	38		52		33		120	
RC/WC-10	WC-10	Year 0 OMMP	4/9/2004	0-10 cm	7.9	U	4	U	4	U	4	U	4	U	4	U	7.9	U
RC/WC-10	WC-10	City Sampling	12/1/2004	0-10 cm	20	U	20	U	20	U	20	U	19	J	20	U	19	
RC/WC-10	WC-10 (City)	City Sampling	12/1/2004	0-10 cm	3.7	U	3.7	U	3.7	U	3.7	U	36.6		36.1		73	
RC/WC-10	Y2-WC10-S	Year 2 OMMP	5/16/2006	0-10 cm	9.9	U	9.9	U	9.9	U	9.9	U	8	J	10	J	18	J
RC/WC-10	WC-10-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U
RC/WC-10	Y4-WC10-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	6.3	J	5.9	J	12	J
RC/WC-10	Y4-WC15-SD	Year 4 OMMP	5/6/2008	0-10 cm	9.6	U	9.6	U	9.6	U	9.6	U	5	J	5.6	J	11	J
RC/WC-10	Y7-WC10-S	Year 7 OMMP	4/20/2011	0-10 cm	19	U	19	U	19	U	19	U	39		27		66	
RC/WC-10	Y10-WC10-S	Year 10 OMMP	4/30/2014	0-10 cm	8.6	U	8.6	U	8.6	U	8.6	U	19		16		35	
RC/WC-10	WCBU-10A	Year 0 OMMP	4/7/2004	0-1 ft	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-10	WCBU-10A-Duplicate	Year 0 OMMP	4/7/2004	0-1 ft	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
RC/WC-10	WCBU-10B	Year 0 OMMP	4/7/2004	1-2 ft	7.9	U	4	U	4	U	4	U	4	U	4	U	7.9	U
RC/WC-10	Y2-WC10-C3	Year 2 OMMP	5/17/2006	1-3 ft	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
RC/WC-10	WCBU-10C	Year 0 OMMP	4/7/2004	2-3.3 ft	7.7	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.7	U
RC/WC-10	Y4-WC10-Cb5	Year 4 OMMP	5/8/2008	4.1-5.0 ft	10	U	10	U	10	U	10	U	10	U	10	U	10	U
RC/WC-10	WC-10-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-10	Y7-WC10-Ca3	Year 7 OMMP	4/21/2011	3.8' core ho	8.8	U	8.8	U	8.8	U	8.8	U	8.8	U	8.8	U	8.8	U
RC/WC-11/R-04	Y5-RC11-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	21		54		60		140	
RC/WC-11/R-04	RC-11	Year 0 OMMP	4/8/2004	0-2 cm	7.9	U	3.9	U	3.9	U	3.9	U	11		3.9	U	11	
RC/WC-11/R-04	RC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	13	U	13	U	13	U	13	U	27		35		62	
RC/WC-11/R-04	RC-11(pre-City dredge)-UTI	Utilities' (pre-City dredge)	8/30/2004	0-2 cm	32	U	32	U	32	U	32	U	32	U	32	U	32	U
RC/WC-11/R-04	RC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-2 cm	19	U	19	U	19	U	19	U	162		139		**300**	
RC/WC-11/R-04	RC-11(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	33	U	33	U	33	U	66		130		84		280	
RC/WC-11/R-04	RC-11	Year 1 OMMP	5/11/2005	0-2 cm	20	U	20	U	20	U	81	J	150	J	150		**380**	**J**
RC/WC-11/R-04	Y2-RC11-S	Year 2 OMMP	5/12/2006	0-2 cm	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
RC/WC-11/R-04	Y3-RC11-S	Year 3 OMMP	5/16/2007	0-2 cm	9.9	U	9.9	U	9.9	U	25	Y (U)	57		65		120	
RC/WC-11/R-04	Y4-RC11-S	Year 4 OMMP	5/6/2008	0-2 cm	9.9	U	9.9	U	9.9	U	24		56		50		130	
RC/WC-11/R-04	Y7-RC11-S	Year 7 OMMP	4/20/2011	0 - 2 cm	20	U	20	U	20	U	52		110		92		250	
RC/WC-11/R-04	Y10-RC11-S	Year 10 OMMP	4/29/2014	0 - 2 cm	30	U	30	U	30	U	37	Y (U)	110		88		200	
RC/WC-11/R-04	WC-11	Year 0 OMMP	4/8/2004	0-10 cm	7.6	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U	7.6	U
RC/WC-11/R-04	WC-11(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	4.18	U	4.18	U	4.18	U	4.18	U	54.1		39.5		94	
RC/WC-11/R-04	WC-11(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	17	U	17	U	17	U	17	U	103		86		190	
RC/WC-11/R-04	WC-11 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	19	U	19	U	19	U	23		48		28		99	
RC/WC-11/R-04	WC-11 (City)	City Sampling	11/30/2004	0-10 cm	4.9	U	4.9	U	4.9	U	4.9	U	111		96		210	
RC/WC-11/R-04	WC-11	Year 1 OMMP	5/11/2005	0-10 cm	20	U	20	U	20	U	61	J	312		96		**620**	
RC/WC-11/R-04	Y2-WC11-S	Year 2 OMMP	5/12/2006	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-11/R-04	Y2-WC15-S	Year 2 OMMP	5/12/2006	0-10 cm	10	U	10	U	10	U	10	U	10	U	10	U	10	U
RC/WC-11/R-04	WC-11-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-11/R-04	Y4-WC11-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	10		26		32		68	
RC/WC-11/R-04	WC-11-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-11/R-04	Y7-WC11-S	Year 7 OMMP	4/20/2011	0-10 cm	19	U	19	U	19	U	29	Y (U)	74		62		140	
RC/WC-11/R-04	Y10-WC11-S	Year 10 OMMP	4/29/2014	0-10 cm	29	U	29	U	29	U	58	Y (U)	150		89		240	
RC/WC-12	Y5-RC12-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	12	U	38		46		84	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	88.4		0.365						5	U	5	U	0.2	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	4.81		43.8		1600		4400				20			
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm	76.2		3.74		160		720		6	U (UJ)	6	U	0.3	U
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm	61.4		4.91		220		1300							
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm	47.2		4.48		450		2200							
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm	43		5.35		270	U	1900							
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm	46.42		3.14		530	U	2400							
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	46.1				380		720				20			
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	86.9		0.192						6	U	6	U	0.2	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm			0.898											
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	68.6				120		270				9			
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm	65.7		3											
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm	3		60.02											
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	85.4		1.01		69		310		6	U (UJ)	6	U	0.2	U
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	77.1		1.24											
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	67.1		3.37		230		1100							
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	53.5		4.42		220	U	1400							
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	52.37		3.17		520		2400							
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	89.7		0.139						6	U (UJ)	6	U	0.2	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	88.3		0.333											
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	90.9		0.02	U					5	U	5	U	0.2	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	59.4		3.7											
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	87.2		0.206											
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	84.61		0.208											
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm	41		7.15		900		4900							
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	78.5		3.33						7	U	8		0.3	U
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	75.2				96		450				6			
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	11.7		70.7		210		910				8	U		
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm	49.1		6.66		450		2800		10	U (UJ)	10	U	0.4	U
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm	39.8		5.47		560		3800							
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm	46.1		6.07		530		3100							
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm	37.2		9.02		140		1100							
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm	40.66		3.6		920		3700							
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm	46		9.75		670		4200							
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	65.9		6.96						8	U	9		0.5	
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	66.7				230		1400				7			
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	7.43		61.3		390		1800				9			
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm	57		7.09		470		2300		8	U (UJ)	9		0.4	
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm	52.4		7.33		300		2200							
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm	36		15.9		1000		5500							
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	40.2		8.35		150		1100							
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm	46.19		2.1		890		3800							
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm	46.13		3.63		860		3600							
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	39		9.75		180		1500							
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	4.37		66.9		250		1200				7			
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm	58.7		6.25		360		2400		8	U (UJ)	10		0.3	U
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	84.7		0.955						5	U	5	U	0.2	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	62.2		3.92		330		1500		9	U (UJ)	9	U	0.5	
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	55.4		3.33											

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	27.3		48.5		4		0.05	U	22		0.3	U	43.9		29	
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm			121		186		**0.8**		31				217		2	
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm			24.7		19		0.05	U	19		0.4	U	59.9		42.2	
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm					39		0.14						109		29.6	
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm					62		0.17						157		1.3	
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm					90		0.21						222		1.3	
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm					87		0.22						217		0.2	
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm			123		190		**0.8**		33				241		5.9	
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	19.8		35.6		3		0.05	U	19		0.3	U	35.9		20	
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm					14.5		0.0692						44.8			
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm			65.6		68		0.24		23				111		33.6	
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm					71.9		0.122						89.7	B		
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm							0.21									
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm			16.9		10		0.05	U	18		0.3	U	39.4		72.2	
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm					18		0.05	U					62		58.9	
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm					36		0.11						100		29.7	
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm					102		0.23						273		23.5	
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm					70		0.2						187		4.4	
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft			44.3		3		0.05	U	25		0.3	U	38.1		28.7	
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft					2	U	0.05	U					37		22.4	
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	20.1		39.4		2		0.04	U	20		0.3	U	34.3		27	
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho					2	U	0.02	U					35		39.4	
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft					2	U	0.02	U					35		26.9	
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm					112		0.16						342		8.9	
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	26.4		58.5		42		0.07		31		0.4	U	99.3		28	
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm			38.6		23		0.06		25				71.2		46.3	
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm			53.3		38		0.08		26				118		32.3	
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm			62.3		73		0.12		34		0.6	U	208		7.6	
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm					113		0.2						256		4.6	
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm					82		0.11						224		3.83	
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm					124		0.15						361		15.2	
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm					103		0.2						320		3.5	
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm					92		0.2						325		3.1	
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	30.1		73.3		54		0.1		31		0.5	U	167		13	
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm			50.9		52		0.08		30				135		31.6	
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm			56.2		58		0.13		30				203		18.1	
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm			63.9		67		0.13		31		0.5	U	219		31.5	
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm					70		0.1						209		13.6	
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm					111		0.2						375		1.4	
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm					109		0.24						365		1.2	
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm					76		0.2						283		2.4	
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm					98		0.11						295		2.2	
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm					126		0.14						367		3.5	
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm			44.6		37		0.08		26				117		25.5	
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm			67.2		60		0.11		33		0.5	U	194		34.5	
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	24.2		44		4		0.05	U	22		0.3	U	38.5		31	
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm			61.3		51		0.2		23		0.5	U	116		3.6	
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm		47	17		5	0.8	1.1	1.9
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	2.4	4	5.4	6.6	7.6	45.9	26.1	72
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm	8.5	12.2	17.5	6.4	2	8.1	3.3	11.4
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm	11.2	13.3	13.4	5	3	17.2	7.5	24.7
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm	3.6	11.7	18.5	9.9	5	34.8	15.2	50
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm	8.4	11.4	12.7	6.7	4.2	41.4	13.8	55.2
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm	3.4	7.7	13.6	8.8	5	43.3	17.9	61.2
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	2.6	4.3	7		6.9	47.3	19.5	66.8
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm		44	23		11	1.1	0.9	2
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm								
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	13	10.7	10.3		5.2	16.7	8.4	25.1
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm								
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm								
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	8.8	5.7	5.3	2.2	0.8	3.3	1.7	5
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	11.8	10.5	8.1	2.7	1	4.6	2.4	7.1
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.9	14.2	14.7	5.7	2.5	15.8	7.4	23.2
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	8.4	8.9	10	4.9	3.6	30.2	10.5	40.7
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	5.8	11.6	16.6	8.4	4.2	33.7	15.3	49
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	15.4	20.4	23.9	9.5	0.9	1.2	0	1.2
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	16.4	19.7	26.3	12.2	1.5			1.4
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft		35	24		13	1.1	0.4	1.5
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	21.2	17.9	15.4	4.7	0.4	0.9	0.9	0.9
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	13.6	18.7	25.9	11.4	1.3	8.8	6.6	15.4
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm	3.5	3.6	4.7	7.5	8.1	40.1	23.5	63.6
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm		34	12		7.9	10	7.9	18
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	12.2	18.9	11.2		3.5	3.9	2.4	6.3
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	12.6	19.7	12.3	5	2.8	9.6	5.7	15.3
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm	8.1	12.2	9.4	12.5	14.4	25.3	10.5	35.8
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm	6.3	7.7	10.2	17.1	13.6	27.2	13.2	40.4
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm	5	10.8	22.8	22.1	10	15.7	9.73	25.5
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm	7.6	6.6	6.5	10.4	10.8	29.3	13.6	42.9
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm	4.2	4.7	10.3	18	12.9	32.2	14.3	46.5
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm	3.6	5.6	7.8	12	12.4	36.5	19.1	55.6
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm		31	11		11	20	14	34
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	11.9	24.1	12.4		6.4	8.4	4.3	12.7
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	9.8	19.5	15	9.6	7.8	12.8	7.4	20.2
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm	7.5	12.4	9.9	8	7.7	15	8.2	23.2
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm	7	11.2	13.5	16.4	14.9	15.7	7.8	23.5
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm	3.5	5.6	9.2	16.1	18.3	33.9	12	45.9
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	6.6	7.3	9.9	18.3	20.5	26.8	9.3	36.1
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm	3.4	6.9	12.4	21.8	19.5	24.1	9.5	33.6
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm	3.1	6	12.9	21.2	19.7	25.7	9.2	34.9
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	5.9	7.9	9.9	18.6	19.4	25.6	9.2	34.8
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	13.2	21.8	13.3	4.6	3.3	11.4	6.8	18.2
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm	8.7	14.8	8.9	4.1	4.4	16.1	8.6	24.7
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm		30	19		14	3.4	2.3	5.7
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	3.8	9	20.5	19.7	8.4	21.6	13.4	35
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm														
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm									340					
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm									20	U				
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm									72	U				
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm									59	U				
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm									54	J				
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm									80	J				
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm									250	U				
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm			19	U	19	U	19	U						
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm			5		4.9		3.98		5.4					
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm									100	U				
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm									39.3	J				
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	84		20	U	20	U	20	U	36		31		20	U
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	220		67	U	67	U	67	U	74		**88**	**M (J)**	67	U
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft			20	U	20	U	20	U	20	U				
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									200	U				
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	.4' core ho	18	U	18	U	18	U	18	U	18	U	18	U	18	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm									240	U				
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm														
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm									58	U				
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm									28	U				
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm									120	U				
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm									120	J				
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm									140	U				
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm									62					
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm									86	J				
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm									98	U				
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm														
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm									69	U				
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm									40	U				
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm									110	U				
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm									72	J				
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm									200	U				
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm									86					
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm									45	J				
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm									55	J				
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm									65					
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm									86	U				
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm									94	U				
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	69	U	69	U	69	U	69	U	69	U	69	U	69	U
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	33	J							34	J				

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	4-Methyl phenol 670 UG/KG		Hexachloroethane UG/KG		2,4-Dimethylphenol 29 UG/KG		Benzoic Acid 650 UG/KG		1,2,4-Trichloro benzene 51 UG/KG		Hexachloro butadiene 11 UG/KG		N-Nitroso diphenylamine 28 UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm														
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm														
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm														
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm														
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm														
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm														
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm														
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm														
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm									19	U				
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm									4.98					
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm														
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm														
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm														
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	20	U	20	U	200	U	20	U	3.4	U	20	U
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	590	U	59	U	0.96	U	59	U
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	30		20	U	20	U	170	J	20	U	4.7	U	20	U
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	64	J	67	U	34	UJ (U)	670	U	67	U	0.99	U	67	U
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	20	U	20	U	20	U	200	U	20	U	1	U	20	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	20	U	20	U	20	U	200	U	20	U	0.98	U	20	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft									20	U				
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	18	U	18	U	18	U (R)	180	U	18	U	18	U	18	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	19	U	19	U	97	U	190	U	19	U	0.98	U	19	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm														
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm														
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm														
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm														
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm														
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm														
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm														
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm														
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm														
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm														
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm														
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm														
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm														
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm														
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm														
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm														
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm														
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm														
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	69	U	69	U	69	U	690	U	69	U	3.5	U	69	U
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm					20	U	20	U	20	U	20	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm					**3000**		510		**2700**		**1400**	
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm					39		12	J	30		24	
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm					130		72	U	76		48	J
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm					240		89		170		130	
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm					480		92		140		120	
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm					660		110	J	230		150	Q (J)
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm					760		250	U	**1200**		**620**	
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm					19	U	19	U	19	U	19	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm					59.2		17.6		34.4		18.4	
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm					380		130		**630**		340	
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm					297		100		306		199	
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm					638		128		**525**		308	
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	3.4	U	98	U	12	J	20	U	20	U	20	U
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	20	U	99	U	26		20	U	30		16	J
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	0.84	J	300	U	110		59	U	84		64	
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	4.7	U	98	U	310		56		92		65	
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	1.4		340	U	710		120		180		140	
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	1	U	99	U	20	U	20	U	20	U	20	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	0.98	U	98	U	20	U	20	U	20	U	20	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft					20	U	20	U	20	U	20	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					200		200	U	140	J	200	U
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	18	U	90	U	18	U	18	U	18	U	18	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	0.98	U	97	U	5.8	J	19	U	19	U	19	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm					240	U	240	U	240	U	240	U
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm					38	U	38	U	38	U	38	U
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm					58	U	58	U	58	U	58	U
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm					73		28	U	32		33	
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm					120	U	120	U	120	U	120	U
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm					130		120	U	130		180	
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm					73	J	140	U	140	U	89	J
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm					170		36		58		90	
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm					180		39	J	86	J	86	JQ (J)
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm					98	U	98	U	98	U	98	U
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm					77	U	77	U	77	U	77	U
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm					69	U	69	U	69	U	69	U
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm					70		40	U	48		48	
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm					110	U	110	U	110	U	110	U
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm					74	J	120	U	86	J	110	J
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm					200	U	200	U	200	U	200	U
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm					190		41		94		130	
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm					100	J	150	U	53	J	60	JQ (J)
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm					110	J	160	U	47	J	55	JQ (J)
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm					140		35		66		90	
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm					86	U	86	U	86	U	86	U
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm					94	U	94	U	94	U	94	U
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm					20	U	20	U	20	U	20	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	3.5	U	350	U	210		69	U	150		110	
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					220		69	J	140		82	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	20	U	20	U	20	U	20	U	22		20	U	20	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	**6200**		**3600**		**1100**		**19000**		**8900**		**11000**		**3800**	
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm	230		61		20	U	400	J	580		360		190	
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm	500		150		54	J	960	J	1100		980		420	
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm	990		340		110		2100		2000		2000		760	
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm	910		310		150		2200		1600		1800		660	
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1000		390		240		2800	J	1900		2400		760	
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	**2600**		**1500**		320		**7000**		**3100**		3100		1500	
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	93.8		41.2		18.2		280		145		174		60	
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	**1500**		820		170		4000		1700		1700		830	
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm	712		401		137		2200		709		945		324	
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm	1460		765		244		4100		1730		2060		919	
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	90		19	J	20	U	120	J	230		160		75	
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	190		43		12	J	320	J	320		280		130	
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	470		160		59	U	890		850		970		390	
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	520		180		100		1300		900		1100		370	
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	1000		360		240		2800		1400		1800		680	
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	20	U	20	U	20	U	20	U	20	U	15	J	20	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	20	U	20	U	20	U	20	U	11	J	17	J	20	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	870		250		200	U	1500	J	1800		1500		690	
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	18	U	18	U	18	U	18	U	18	U	18	U	18	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	7.8	J	19	U	19	U	14	J	9.7	J	16	J	6.8	J
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**2100**		330		240	U	2400		**3600**		3200		**1600**	
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	260		43		38	U	300		870		510		240	
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	200		58	U	58	U	200		440		340		160	
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	460		88		28	U	690		1300		1200		380	
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm	970		160		120	U	1100		**2600**		1600		820	
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm	**2800**		460		64	J	3800		**6200**		**5300**		**2400**	
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm	**1800**		280		140	U	2200	J	**4400**		**3400**		1500	
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm	1400		230		72		2100		**3400**		1600	Q (J)	1200	
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1200		200		100	J	1900	J	**2500**		2600		1100	
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1200		190		98	U	1400		1900		1800		1000	
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	570		88		77	U	660		1600		890		460	
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	260		69	U	69	U	260		580		430		200	
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	710		120		40	U	1000		2100		1900		580	
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm	710		120		110	U	830		1800		1100		590	
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm	**1600**		270		120	U	2100	J	**3400**		2600		1200	
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm	**1700**		260		200	U	2000		**4100**		3200		1400	
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	**1900**		360		80		2800		**4600**		2200	Q (J)	1500	
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1100		160		68	J	1500	J	2200		2100		890	
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm	990		150	J	62	J	1400	J	1400		1200		750	
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	**1500**		260		66		2200		**3600**		1600	Q (J)	1200	
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	380		86	U	86	U	380		1100		1000		320	
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm	620		110		94	U	730		1800		1100		530	
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	21		20	U	20	U	21		53		37		20	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	590		210		69	U	1300		960		1200		510	
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	710		250		88	J	1500	J	1400		1400		590	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	**3500**		2400		3500		**5900**		**4200**		**1000**	
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm	310		300		230		530		210		82	
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm	620		820		560		1400		510		190	
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm	1300		1300		950		2300		1100		**780**	
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm	1000						2200		920	Q (J)	370	
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm	1100						2000	Q	1100		650	
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	1600		1200		830		2000		**1600**		**890**	
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	70						110		59.6		41.5	
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	880		490		490		980		880		590	
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm	355						430		316		146	
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm	845						1100		1000		405	
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	120		120		88		210		84		45	
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	200		170		230		400		160		88	
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	550		600		420		1000		510		350	
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	560						1300		540	Q (J)	210	
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	1000						2600		1200		330	
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1000		1000		1000		2000		950		300	
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	18	U					18	U	18	U	18	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	7.8	J					14	J	7.8	J	19	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**2800**		3800		3800		**7600**		**1800**		**1200**	
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	410		500		330		830		260		120	
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	250		210		210		420		210		120	
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	590		800		570		1400		510		180	
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm	1300		1700		820		2500		960		280	
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm	**3500**		3400		4400		**7800**		**2700**		**1200**	
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm	2300		1700		2000		**3700**		**1600**		**960**	
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm	1900						3100		**1600**		620	
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1600						3000	Q	1400		570	
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm	1800		1400		1400		2800		1300		600	
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	760		740		640		1400		480		210	
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	300		250		250		500		240		130	
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	880		930		930		1900		760		260	
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm	920		860		820		1700		650		210	
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm	1800		2000		2100		**4100**		1400		560	
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm	2300		2000		1800		**3800**		**1600**		**860**	
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	2500						**4200**		**1800**		**880**	
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm	1500						2600	Q	1200		350	
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm	1200						2300	Q	980		450	
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	1900						3100		1400		630	
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	520		580		550		1100		430		150	
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm	920		1100		620		1700		680		210	
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	27		20	U	21		21		20	U	20	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	630		570		670		1200		610		140	
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	960		1000		1100		2100		840		320	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	20	U	20	U	22		20	U	20	U	20	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	**360**		**990**		**40000**		49	U	49	U	180	
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm	14	J	100		2400	J						
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm	48	J	190		5400	J						
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm	**260**		**870**		11000							
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm	180		370		9100							
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm	190		**740**		11000							
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	**250**	U	**750**		15000		250	U	250	U	250	U
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	24.2		48.6		730		11.5	U	21.2	U	18.3	
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	110		460		8100		100	U	100	U	100	U
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm	73.6		179		3500		150	U	150	UJ	150	B
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm	56.9		520		8600							
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	60		980		20	U	20	U	23	
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	18	J	90		1700	J	20	U	20	U	13	J
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	140		420		5200		59	U	59	U	59	U
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	94		210		5300		20	U	20	U	35	Q (J)
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	100		330		9400		27	J	67	U	57	J
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	20	U	20	U	15	J	20	U	20	U	20	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	20	U	20	U	28	J	20	U	43		46	
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	20	U	20	U	20	U	20	U	20	U	20	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	200	U	300		8500		200	U	200	U	200	U
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	18	U	18	U	18	U	18	U	18	U	18	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	19	U	19	U	62	J	19	U	19	U	19	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**520**	**(J)**	**1400**		**24000**	**(J)**						
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	38	U	110		4200		38	U	38	U	57	
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	58	U	97		2000		58	U	58	U	58	U
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	60		170		5800		28	U	28	U	120	
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm	120	U	340		10000							
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm	**240**		**1100**		**30000**							
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm	**390**		**950**		**19000**							
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm	220		640		14000							
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm	160		590		14000							
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm	**230**		590		12000							
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	77	U	200		7400		77	U	77	U	77	U
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	69	U	100		2500		69	U	69	U	69	U
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	86		260		8700		40	U	40	U	320	
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm	110	U	260		7200							
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm	130		540		16000							
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm	**340**		**920**		**19000**							
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	**340**		**900**		**19000**							
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm	110	J	340		11000	J						
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm	130	J	440		8900	J						
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	**240**		630		14000							
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	86	U	140		4800		86	U	86	U	100	
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm	94	U	250		7200							
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	160		20	U	20	U	20	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	69	U	180		5500		69	U	69	U	160	J (JB)
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	69	J	340		8000	J	34	U	34	U	42	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	20	U	60		20	U	0.39	U	0.39	U	0.39	U	3.9	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	500		**3800**		63		**21**	**J**	14	U	21	J	20	U
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm			**1300**										9.8	U
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm			**2200**										9.8	U
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm			**3600**										9.7	U
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm			**3400**	B									20	U
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm			**4000**										30	U
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	300		**1800**	B	250	U	15		1.9	U	13	U	19	U
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	19	U	19	U	19	U	0.38	U	0.38	U	0.38	U	3.8	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	12.6	U	171	B	10.8	U	0.237	U	0.232	U	0.273	U	3.41	U
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	180		880	B	100	U	5.7		2	U	2	U	20	U
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm	299	U	309		299	U	2.86		6.1		8.1		4.4	U
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm			823				3.2		8.5				11	U
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	28		590		32		7	U	7	U	7	U	9.7	U
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	33		640		21		2	U	2	U	2	U	9.9	U
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	93		**1600**		59	U	1.9	U	1.9	U	1.9	U	9.7	U
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	180	Q (J)	**1800**	B	20	U	9.5	U	9.5	U	9.5	U	19	U
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	250		**3400**	B	110		0.99	U	3.9	Y (U)	7.6	Y (U)	28	U
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	20	U	20	J	20	U	2	U	2	U	2	U	9.7	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	20	U	14	J	20	U	9.55	P	6.03		2	U	9.8	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	20	U	49		20	U	0.4	U	0.4	U	0.4	U	4	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	220		**2800**	B	110	J								
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	18	U	18	U	18	U	1.8	U	1.8	U	1.8	U	9.4	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	19	U	52		19	U	0.98	U	0.98	U	0.98	U	9.2	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**6500**										12	U
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	130		**1400**		98		1.1		3.4	U	3.7	U	3.9	U
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	85		830	B	58	U	2	U	2	U	2	U	20	U
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	170		**2100**		81		2	U	2	U	12	U	20	U
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm			**3700**										9.9	U
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm			**7300**										9.8	U
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm			**6600**										10	U
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm			**3800**	B									20	U
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**4700**										30	U
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm			**5300**										12	U
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	180		**3000**		150		1.7		3.1	U	4.9	U	3.9	U
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	85		790	B	69	U	1.9	U	1.9	U	3.2		19	U
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	190		**3600**		93		5.2	J	7.2	U	11	J	20	U
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm			**3600**										9.9	U
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm			**4200**										10	U
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm			**8000**										20	U
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm			**6100**	B									39	U
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm			**5300**										28	U
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm			**5000**										30	U
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm			**5400**	B									19	U
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	140		**1900**		86	U	2	U	2	U	5	U	20	U
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm			**3800**										9.8	U
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	20	U	100		20	U	0.39	U	0.39	U	0.39	U	3.9	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	140	J (JIS)	**2000**		87	J (JIS)	7	U	7	U	7	U	9.7	U
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	150		**2700**		74	J								

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
		SQO															300	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
RC/WC-12	RC-12	Year 0 OMMP	4/9/2004	0-2 cm	7.9	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.9	U
RC/WC-12	RC-12	Year 1 OMMP	5/11/2005	0-2 cm	20	U	20	U	20	U	65	J	110	J	100		280	J
RC/WC-12	Y2-RC12-S	Year 2 OMMP	5/16/2006	0-2 cm	9.8	U	9.8	U	9.8	U	9.8	U	16	J	27	J (JC)	43	J
RC/WC-12	Y3-RC12-S	Year 3 OMMP	5/17/2007	0-2 cm	9.8	U	9.8	U	9.8	U	24	Y (U)	32		40		72	
RC/WC-12	Y4-RC12-S	Year 4 OMMP	5/6/2008	0-2 cm	9.7	U	9.7	U	9.7	U	11		29		26		66	
RC/WC-12	Y7-RC12-S	Year 7 OMMP	4/20/2011	0 - 2 cm	20	U	20	U	20	U	29	Y (U)	77		64		140	
RC/WC-12	Y10-RC12-S	Year 10 OMMP	4/29/2014	0 - 2 cm	30	U	30	U	30	U	37	Y (U)	100		83		180	
RC/WC-12	RC-12	City Sampling	12/1/2004	0-3 cm	19	U	19	U	19	U	64		89		59		210	
RC/WC-12	WC-12	Year 0 OMMP	4/9/2004	0-10 cm	7.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U	7.7	U
RC/WC-12	WC-12(pre-City dredge)-CIT	City (pre-City dredge)	8/20/2004	0-10 cm	3.41	U	3.41	U	3.41	U	3.41	U	13.7		14.7		28	
RC/WC-12	WC-12	City Sampling	12/1/2004	0-10 cm	20	U	20	U	20	U	24		41		27		92	
RC/WC-12	WC-12 (City)	City Sampling	12/1/2004	0-10 cm	4.4	U	4.4	U	4.4	U	4.4	U	81.7		75.5		160	
RC/WC-12	WC-12	Year 1 OMMP	5/11/2005	0-10 cm	11	U	11	U	11	U	11	U	144		163		**310**	
RC/WC-12	Y2-WC12-S	Year 2 OMMP	5/16/2006	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	5	J	7	J	12	J
RC/WC-12	WC-12-070517-G	Year 3 OMMP/City Sampling	5/17/2007	0-10 cm	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U
RC/WC-12	Y4-WC12-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.7	U	9.7	U	9.7	U	7.2	J	18		15		40	J
RC/WC-12	Y7-WC12-S	Year 7 OMMP	4/20/2011	0-10 cm	19	U	19	U	19	U	24	Y (U)	61		51		110	
RC/WC-12	Y10-WC12-S	Year 10 OMMP	4/29/2014	0-10 cm	28	U	28	U	28	U	43	Y (U)	87		62		150	
RC/WC-12	Y2-WC12-C3	Year 2 OMMP	5/17/2006	1-2 ft	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
RC/WC-12	Y4-WC12-Cb2	Year 4 OMMP	5/8/2008	0.6-1.4 ft	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
RC/WC-12	WCBU-12A	Year 0 OMMP	4/7/2004	0-1.7 ft	7.9	U	4	U	4	U	4	U	4	U	4	U	7.9	U
RC/WC-12	WC-12-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
RC/WC-12	Y7-WC12-Ce3	Year 7 OMMP	4/22/2011	3.4' core ho	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U	9.4	U
RC/WC-12	Y10-WC12-Cb3	Year 10 OMMP	5/1/2014	1.6 - 2.4 ft	9.2	U	9.2	U	18	Y (U)	9.2	U	9.2	U	9.2	U	18	U
RC-13	Y5-RC13-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	24	J	52		64		140	J
RC-13	RC-13	Year 0 OMMP	4/8/2004	0-2 cm	7.8	U	3.9	U	3.9	U	3.9	U	13	U	3.9	U	7.8	U
RC-13	RC-13	City Sampling	12/9/2004	0-2 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
RC-13	RC-13	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	20	U	42	J	38		80	J
RC-13	Y2-RC13-S	Year 2 OMMP	5/16/2006	0-2 cm	9.9	U	20	U	9.9	U	20	U	40		58	J (JC)	98	J
RC-13	Y3-RC13-S	Year 3 OMMP	5/16/2007	0-2 cm	9.8	U	9.8	U	9.8	U	30	Y (U)	82		110		190	
RC-13	Y4-RC13-S	Year 4 OMMP	5/7/2008	0-2 cm	10	U	10	U	10	U	22		37		35		94	
RC-13	Y7-RC13-S	Year 7 OMMP	4/18/2011	0 - 2 cm	20	U	20	U	20	U	44		85		100		230	
RC-13	Y10-RC13-S	Year 10 OMMP	4/30/2014	0 - 2 cm	30	U	30	U	30	U	59	Y (U)	100		140	P (J)	240	
RC-14	Y5-RC14-S	Year 5 OMMP	5/26/2009	0 - 2 cm	12	U	12	U	12	U	12	U	38		56		94	
RC-14	RC-14	Year 0 OMMP	4/8/2004	0-2 cm	7.7	U	3.9	U	3.9	U	3.9	U	14	U	3.9	U	7.7	U
RC-14	RC-14	City Sampling	12/9/2004	0-2 cm	19	U	19	U	19	U	19	U	19	U	19	U	19	U
RC-14	RC-14	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	20	U	57	J	53	J	110	J
RC-14	Y2-RC14-S	Year 2 OMMP	5/16/2006	0-2 cm	9.9	U	15	U	9.9	U	15	U	24		38	J (JC)	62	J
RC-14	Y3-RC14-S	Year 3 OMMP	5/16/2007	0-2 cm	10	U	10	U	10	U	20	Y (U)	60		62		120	
RC-14	Y4-RC14-S	Year 4 OMMP	5/7/2008	0-2 cm	20	U	20	U	20	U	26		54		47		130	
RC-14	Y7-RC14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	39	U	39	U	39	U	41		84		100		230	
RC-14	Y10-RC14-S	Year 10 OMMP	4/30/2014	0 - 2 cm	28	U	71	Y (U)	28	U	28	U	63		74		140	
RC-14	Y10-RC15-SD	Year 10 OMMP	4/30/2014	0 - 2 cm	30	U	30	U	30	U	30	U	73		63		140	
RC-15	Y7-RC15-SD (Dup RC-14-S	Year 7 OMMP	4/18/2011	0 - 2 cm	19	U	19	U	19	U	38		86		90		210	
RC-14B	RC-14B	Year 1 OMMP	5/12/2005	0-2 cm	20	U	20	U	20	U	20	U	20	U	19	J	19	J
RC-14B	Y2-RC14B-S	Year 2 OMMP	5/16/2006	0-2 cm	9.8	U	15	U	9.8	U	15	U	28		53	J (JC)	81	J
WC-13	WC-13	Year 0 OMMP	4/8/2004	0-10 cm	7.8	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.8	U
WC-13	Y2-WC13-S	Year 2 OMMP	5/15/2006	0-10 cm	9.7	U	9.7	U	9.7	U	26		54		51		130	
WC-13	WC-13-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	58.6		4.71		250		1100							
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	51.4		7.74											
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	43.4		8.12		430		3300							
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	43.66		3.47		630		3200							
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	45.19		3.05		670		3400							
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	74.4		2.3						7	U	7	U	0.3	U
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	46.8		4.51		650		3200		10	U (UJ)	10	U	0.7	
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	57.1		2.84											
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	50.6		3.45		590		2500							
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	51.9		7.26											
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	42.3		8.27		570		4200							
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	55.22		3.94		650		3300							
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	91.5		0.223						5	U	5	U	0.2	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	94.3		0.462		14		75		5	U (UJ)	5	U	0.2	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	91.2		0.215		12		67							
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	76.8		3.33		36		220							
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	78.9		1.57		120		620							
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	90.3		0.177						5	U	5	U	0.2	U
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	81		2.75		160		770		6	U (UJ)	6	U	0.2	U
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	64.6		6.03		370		1900							
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	61.9		5.56		140		1000							
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	62.58		3.43		480		2500							
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	89.3		0.536						5	U	5	U	0.2	U
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	60		5.52		380		2000		8	U (UJ)	8	U	0.3	
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	56.7		6.57		530		2900							
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	57.3		4.88		250		1500							
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	51.5		3.33		580		2900							
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	91.9		0.31						5	U	5	U	0.2	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	72.1		5.33		210		1100		7	U (UJ)	7	U	0.3	U
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	69.3		4.13		310		1600							
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	70.3		3.54		33	U	140							
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	66.41		3.44		240		1000							
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	50.8		9.86		640		4200							
City Area Locations																		
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	62.6		1.6											
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	34.3										20			
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm	64.8										20			
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	48.1		3.5											
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	53.1				1100		2300				11			
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm	43.7		7.7											
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	4.24		49		1600		4300				10			
S-15	S-15A	City Sampling	5/10/2005	0-10 cm	4.7		51.9											
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	82.8		3.77		130		670		6	U (UJ)	6	U	0.2	U
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	86		1.57											
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	85.8		0.977											
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	72.2		4.73		160		870							
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	83.6		2.83											
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	65		5.87											

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm					32		0.08						106		60.8	
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm					116		0.22						330		0.1	
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm					87		0.22						247		2.8	
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm					88		0.19						252		7	
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	18.2		36.1		4		0.05	U	18		0.4	U	34.4		2.8	
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm			78.3		70		0.2		28		0.7	U	160		0.6	
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm																
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm					74		0.18						209		0.2	
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm					109		0.3						331		1.3	
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm					62		0.13						211		0.8	
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	18.9		30.7		3		0.05	U	19		0.3	U	33		13	
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm			24.1		5		0.04	U	19		0.3	U	36.6		56.2	
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm					4		0.05	U					37		41	
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm					44		0.06						129		49.8	
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm					32		0.03						101		40.6	
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	19.7		41.6		2	U	0.04	U	18		0.3	U	31.1		30	
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm			44.6		36		0.05	U	21		0.3	U	87.3		29.5	
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm					58		0.1						175		47	
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm					77		0.08						204		10.6	
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm					83		0.1						231		14.3	
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	19.8		33.9		4		0.04	U	20		0.3		36.3		18	
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm			78.8		58		0.1		29		0.5	U	169		45.9	
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm					64		0.1						200		5.2	
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm					89		0.12						293		8.2	
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm					92		0.12						273		10.7	
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	20.4		52.3		4		0.04	U	22		0.3	U	35.7		20	
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm			51.1		44		0.08		28		0.4	U	119		61.3	
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm					53		0.11						147		27.6	
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm					35		0.05						114		39.6	
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm					41		0.06						122		41.4	
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm					196		0.14						408		60.2	
City Area Locations																				
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm					72.1		0.307						79.6			
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm			167		335		**1.4**		43				363			
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm			81.5		80		0.2		27				79.6			
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm					296		**1.48**						360			
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm			104		140		**0.67**		27				179		5.4	
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm					240		0.328						232	B		
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm			106		162		**0.7**		37				200		2.9	
S-15	S-15A	City Sampling	5/10/2005	0-10 cm							0.22									
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm			23.6		15		0.05	U	23		0.4	U	58.8		52.9	
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					10		0.04	U					55		57	
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					12		0.05	U					52		53.6	
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm					23		0.06						77		50.9	
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm																

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	7.4	6.1	4.3	2.2	1.8	11.3	6.1	17.4
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	2.5	4.2	10.2	9.6	8.1	51.2	14	65.2
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	2.8	5.8	14.5	13.9	7.1	40.5	12.8	53.3
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	3.1	5.8	13.8	12.7	6.6	37.7	13.4	51.1
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm		18	30		41	5.4	3.6	9
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	2.5	4.5	12.7	18	9.6	32.8	19.5	52.3
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm								
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	1.5	5.2	18.7	18.9	8.1	32.4	14.9	47.3
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	3.4	4.9	11.8	12	9	46.4	11.2	57.6
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	1.7	5.7	22	23.3	8.5	27.2	10.9	38.1
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm		27	32		27	0.7	0.6	1.3
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	10.6	10.6	11.9	7.3	1.8	0.7	1	1.7
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	12.7	14.3	17.5	10.2	2.3			2
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	12.4	9.3	6.9	3.6	2.4	7.5	8.3	15.8
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	10.7	12	14.4	8.5	3.6	6	4.2	10.2
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm		34	21		14	0.4	0.7	1.1
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	13.7	20.5	17	7.9	2.1	6.4	2.9	9.3
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	7.9	10.5	10.8	5.2	2.4	12.3	3.9	16.2
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	9.1	13.8	16.1	16.8	9.9	14.7	9.1	23.8
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	7.6	13.5	18.8	11	4.9	19.7	10	29.7
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm		37	24		15	4.3	2.4	6.7
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	4.9	8.5	8.6	6.5	4.3	13.9	7.3	21.2
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	7.9	12	15.5	12.8	10.4	22	14.1	36.1
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	10.1	14.3	11.9	9.1	11.6	21.8	12.9	34.7
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	3.8	5.5	10.8	14.5	13.6	25	15.9	40.9
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm		43	25		11	0.9	0.2	1.1
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	6	8.4	7.1	4.5	2.2	6.1	4.4	10.5
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	13.3	15.9	10.6	4.6	3.2	14.6	10.2	24.8
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	9.9	15.8	10.1	3.6	2	12.1	6.8	18.9
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	11.8	14.6	9.4	3.2	2	9.2	8.2	17.4
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	4.9	5.6	4.3	4	4.4	10.6	5.87	16.5
City Area Locations												
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm								
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm								
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm								
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm								
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	3.9	5	10.5		8.8	34.6	17.8	52.4
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm								
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	3.9	9.3	10.8	9.1	6.3	39.7	18	57.7
S-15	S-15A	City Sampling	5/10/2005	0-10 cm								
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	11.1	10.7	10.9	4.7	1.3	5.7	3.6	9.3
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	13	10.5	10.5	3.1	0.6	3.5	2	5.3
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	11.5	10.8	12.7	4.5	0.9	3.8	2.4	6.1
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	10	10.2	9.3	3.1	1.1	9	6.1	15.1
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm								

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	22		20	U	20	U	20	U	20	U	20	U	20	U
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									120	U				
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	160	(J)	56	U	56	U	56	U	34	J	**100**	**(J)**	56	U
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	340		92	U	92	U	92	U	60	J	**130**	**M (J)**	92	U
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	290		93	U	93	U	93	U	56	J	**130**	**M (J)**	93	U
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm			19	U	19	U	19	U						
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	96	U	96	U	96	U	96	U	96	U	96	U	96	U
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	32	J							21	J				
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									59	U				
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	240	(J)	59	U	59	U	59	U	35	J	100	(J)	59	U
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	150		77	U	77	U	77	U	35	J	**85**	M (J)	77	U
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm			19	U	19	U	19	U						
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	26		19	U	19	U	19	U	19	U	19	U	19	U
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	100		19	U	19	U	19	U	16	J	31		19	U
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm			19	U	19	U	19	U						
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	21	U	21	U	21	U	21	U	21	U	21	U	21	U
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	16	J	20	U	20	U	20	U	13	J	20	U	20	U
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	160		19	U	19	U	19	U	36		**76**		14	J
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	160	B	62	U	62	U	62	U	37	J	65		62	U
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm			20	U	20	U	20	U						
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	88	U	88	U	88	U	88	U	88	U	88	U	88	U
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	100	U	100	U	100	U	100	U	100	U	100	U	100	U
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	290		19	U	19	U	19	U	69		**200**		19	U
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	220	B	78	U	78	U	78	U	46	J	**170**		78	U
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm			19	U	19	U	19	U						
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	79	U	79	U	79	U	79	U	79	U	79	U	79	U
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	98	U	98	U	98	U	98	U	98	U	98	U	98	U
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	43		18	U	18	U	18	U	13	J	11	J	18	U
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	100	B	58	U	58	U	58	U	18	J	58		58	U
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	95	J	120	U	120	U	120	U	120	U	120	U	120	U
City Area Locations																		
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm									99	U				
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm									**1800**					
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm									200	U				
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm			78		78		**78**		**2400**					
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm									250					
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm									404					
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm									380					
S-15	S-15A	City Sampling	5/10/2005	0-10 cm														
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	51	U	51	U	51	U	51	U	51	U	51	U	51	U
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	14	J	20	U	20	U	20	U	20	U	20	U	20	U
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	18	J	20	U	20	U	20	U	20	U	20	U	20	U
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									190	U				
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm									63	U				

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroethane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	20	U	20	U	20	U	200	U	20	U	1	U	20	U
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	42	J	56	U	56	U	350	J	56	U	56	U	56	U
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	92	U	92	U	47	UJ (U)	310	JQ (J)	92	U	0.99	U	92	U
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	79	J	93	U	47	UJ (U)	290	JQ (J)	93	U	0.96	U	93	U
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm									19	U				
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	96	U	96	U	96	U	960	U	96	U	3.6	U	96	U
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	59	U	59	U	590	U	59	U	1.9	U	59	U
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	38	J	59	U	59	U	600	(J)	59	U	59	U	59	U
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	77	U	77	U	39	UJ (U)	770	U	77	U	0.98	U	77	U
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm									19	U				
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	20	U	20	U	200	U	20	U	1	U	20	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	19	U	19	U	19	U	190	U	19	U	0.95	U	19	U
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	22		19	U	19	U	77	J	19	U	19	U	19	U
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	60	U	60	U	31	UJ	600	U	60	U	0.95	U	60	U
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm									19	U				
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	21	U	21	U	21	U	480		21	U	1	U	21	U
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	20	U	20	U	20	U	200	U	20	U	0.98	U	20	U
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	41		19	U	19	U	370		19	U	2	U	13	J
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	62	U	62	U	32	UJ (U)	220	J	62	U	0.98	U	62	U
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm									20	U				
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	88	U	88	U	88	U	880	U	88	U	3.5	U	88	U
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	100	U	100	U	100	U	1000	U	100	U	0.99	U	100	U
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	69		19	U	19	U	**1000**		19	U	19	U	19	U
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	78	U	78	U	40	UJ (U)	**740**	J	78	U	0.97	U	78	U
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm									19	U				
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	40	J	79	U	79	U	790	U	79	U	3.5	U	79	U
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	98	U	98	U	98	U	980	U	98	U	0.97	U	98	U
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	22		18	U	18	U	57	J	18	U	18	U	18	U
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	58	U	58	U	30	UJ (U)	190	J	58	U	0.95	U	58	U
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	120	U	120	U	120	U	1200	U	120	U	0.98	U	120	U
City Area Locations																		
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm														
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm														
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm														
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm									**78**					
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm														
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm														
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm														
S-15	S-15A	City Sampling	5/10/2005	0-10 cm														
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	51	U	51	U	51	U	510	U	51	U	3.5	U	51	U
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	59	U	59	U	59	U	590	U	59	U	0.97	U	59	U
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	4		100	U	53		20	U	24		26	
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					140		120	U	76	J	87	J
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	56	U	280	U	170	(J)	31	J	48	J	45	J
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	2		460	U	320		51	J	78	J	69	J
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	2.8		460	U	290		56	J	83	J	74	J
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm					19	U	19	U	19	U	19	U
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	3.6	U	480	U	240		96	U	130		98	
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					110		30	J	63	J	52	J
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	3.4		300	U	100		59	U	59	U	59	U
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					120		37	J	69		64	
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	59	U	290	U	150	(J)	59	U	41	J	50	J
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	1.4		380	U	170		35	J	46	J	38	J
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm					19	U	19	U	19	U	19	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	1	U	98	U	20	U	20	U	20	U	20	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	0.95	U	97	U	19	U	19	U	19	U	19	U
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	6.5		10	J	60		16	J	16	J	21	
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	0.48	J	300	U	30	J	60	U	60	U	15	J
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm					19	U	19	U	19	U	19	U
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	1	U	73	J	20	J	21	U	17	J	22	
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	1.8		85	J	11	J	20	U	20	U	14	J
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	2	U	87	J	98		25		48		57	
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	1.2	J	310	U	71		62	U	28	J	28	J
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm					20	U	20	U	20	U	20	U
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	3.5	U	440	U	88	U	88	U	88	U	88	U
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	2.5		500	U	100	U	100	U	100	U	52	J
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	6		71	J	140		34		58		87	
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	2.3		390	U	110		78	U	35	J	58	J
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm					19	U	19	U	19	U	19	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	3.5	U	400	U	65	J	79	U	53	J	79	U
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	1.4		490	U	98	U	98	U	98	U	98	U
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	18	U	93	U	48		13	J	13	J	17	J
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	0.67	J	290	U	52	J	15	J	18	J	20	J
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	3.6		590	U	100	J	120	U	59	J	61	J
City Area Locations																
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm					950		99	U	**700**		460	
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm					**11000**		**2000**		**14000**		**8000**	
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm					780		210		**780**		460	
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm					**8200**		820		**7700**		**9300**	
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm					890		320		**2300**		**1300**	
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm					2010		**1390**		**3690**		**2410**	
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm					**3000**		560		**4200**		**1700**	
S-15	S-15A	City Sampling	5/10/2005	0-10 cm					1020		363		**1200**		**649**	
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	3.5	U	260	U	51	U	51	U	51	U	51	U
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	98	U	15	J	20	U	20	U	20	U
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	98	U	13	J	20	U	20	U	20	U
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	1	J	300	U	59	U	59	U	59	U	59	U
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					190	U	190	U	190	U	190	U
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm					75		63	U	36	J	32	J

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	320		78		22		520		990		820		230	
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1000		220		65	J	1600	J	**2900**		2400		1000	
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	500	(J)	110	(J)	67	(J)	970	J	1200	(J)	1300	(J)	450	(J)
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	830		210		120		1700	J	1600		1700		700	
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	750		180		120		1600	J	1400		1400		600	
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	20		19	U	19	U	20		38		28		19	U
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	680		260		96	U	1400		1600		1700		690	
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	400		120		44		820	J	980		910		380	
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	460		110		59	U	670		1300		1000		430	
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	720		170		48	J	1200	J	1900		1600		750	
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	550	(J)	110	(J)	64	(J)	970	J	1400	(J)	1400	(J)	520	(J)
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	560		140		73	J	1100	J	1100		1200		490	
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U	19	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	30		20	U	20	U	30		63		59		26	
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	39		25		10	J	74		130		120		50	
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	280		62		24		480	J	760		780		270	
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	180		170		18	J	410	J	380		340		140	
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U	19	U
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	250		77		21	U	390	J	580		270		150	
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	78		47		14	J	160	J	330		290		100	
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	740		120		46		1100		1600		1700		540	
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	260		53	J	34	J	470	J	670		640		240	
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	20	U	20	U	43		30		20	U
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	700		150		88	U	850		1800		1100		570	
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	830		140		100	U	1000	J	2300		1800		800	
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	1400		310		67		2100		**3600**		1800	Q (J)	1300	
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	710		140		54	J	1100	J	1800		1600		620	
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U	19	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	380		100		79	U	600	J	750		610		290	
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	420		82	J	98	U	500	J	1200		960		390	
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	220		45		20		380	J	570		590		210	
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	220		41	J	29	J	400	J	460		430		150	
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	1000		180		120	U	1400	J	2400		2000		750	
City Area Locations																		
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	560		230		99		**5400**		710		960		380	
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	**35000**		**14000**				**84000**		**24000**		**22000**		**10000**	
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm	580		360				**5600**		**3200**		690		400	
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**48000**		**9200**		**4400**		**62000**		**26000**		**45000**		**7500**	
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	**5800**		**2300**		410		**13000**		**3700**		**4800**		**1900**	
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm	**8980**		**4260**		**1040**		**24000**		**7390**		**10200**		**3200**	
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	**7300**		**4100**		**1300**		**22000**		**10000**		**13000**		**4600**	
S-15	S-15A	City Sampling	5/10/2005	0-10 cm	**2510**		**1450**		470		**7700**		**2750**		**3400**		1510	
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	120		51	U	51	U	120		230		250		98	J (JIS)
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	87		20		20	U	120	J	200		160		73	
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	91		20	J	20	U	120	J	230		180		81	
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	180		59	U	59	U	180		490		470		190	
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	110	J	190	U	190	U	110	J	220		210		110	J
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	290		84		63	U (J)	520	J	710		560		230	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	570		630		580		1200		410		150	
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1600		1800		1800		**3600**		1300		460	
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	760	(J)					1500	(J)	610	(J)	460	(J)
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	1100						2800		1000		390	
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	1000						2400		930		330	
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	880		1300		560		1900		790		200	
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	520		670		720		1400		490		220	
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	720		810		810		1600		560		180	
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1100		1200		1200		2400		990		350	
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	880	(J)					1600	(J)	630	(J)	470	(J)
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	830						1900		720		250	
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	38		31		31		62		28		24	
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	91		70		78		150		51		21	
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	460						1200		380		170	
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	230						460		190		93	
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	260		200	J	200	J	400	J	180	J	130	J
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	250		110		170		280		92		36	
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	940						1900		680		280	
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	430						840		310		170	
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	23		25		22		22		20	U	20	U
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	940		900		700		1600		670		260	
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	1200		1200		1100		2300		920		450	
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	2000						3400		**1600**		650	
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	1100						2000		820		420	
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	450		490		250		740		340		170	
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	680		730		550		1300		500		260	
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	350						800		270		120	
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	290						550		220		130	
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	1400		1500		1200		2700		1100		430	
City Area Locations																
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	440						750		450		**740**	
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	**10000**		6200		6200		**12000**		**9900**		**3100**	
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm	480		420		360		780		460		560	
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**8100**						**19000**		**7800**		**5500**	
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	2100		1200		1200		2400		**2100**		**860**	
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm	**3350**						**3900**		**3600**		**1330**	
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	**4700**		2900		2900		**5800**		**4700**		**1500**	
S-15	S-15A	City Sampling	5/10/2005	0-10 cm	1480						2200		**1670**		**828**	
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	160	J (JIS)	200		110		310		120		51	U
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	120		120		130		250		94		55	
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	140		180		110		290		100		56	
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	320		310		270		580		240		210	
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	150	J	130	J	130	J	260	J	120	J	190	U
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	380						640		290		250	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	32		160		4600		20	U	20	U	23	
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	**230**		480		14000		120	U	120	U	120	U
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	150	(J)	520	(J)	7000		56	U	56	U	42	J
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	110		380		9800		32	J	92	U	100	
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	93		400		8600		56	J	93	U	100	
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	19	U	19	U	66		19	U	19	U	32	
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	96	U	240		8000		96	U	96	U	150	J (JB)
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	45		230		5200		32	U	32	U	27	J
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	59	U	190		6000		59	U	59	U	59	U
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	140		350		9600		59	U	59	U	76	
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	160	(J)	530	(J)	7600		59	U	59	U	32	J
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	77		260		6800		77	U	77	U	73	J
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	24		320		20	U	20	U	20	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	19	U	21		630		19	U	19	U	19	U
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	54		180		4300		19	U	19	U	64	
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	33	J	100		2000	J	60	U	60	U	27	J
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	35	
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	36	J	120	J	2100	J	21	U	21	U	38	
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	18	J	32		1400	J	19	J	20	U	20	U
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	100		310		8100		31		19	U	110	
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	50	J	180		3500	J	22	J	62	U	59	J
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	20	U	20	U	170		20	U	20	U	24	
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	88	U	340		7300		88	U	88	U	110	
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	190		430		10000		100	U	100	U	100	U
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	**230**		700		15000		31		12	J	130	
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	120		470		9000		39	J	78	U	78	U
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	19	U	19	U	19	U	19	U	19	U	19	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	79	U	220		3600		79	U	79	U	50	J
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	100		260		5600		98	U	98	U	98	U
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	38		130		3100		18	U	18	U	73	
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	32	J	160		2400	J	58	U	58	U	58	U
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	130		460		11000		120	U	120	U	90	J
City Area Locations																
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	99	U	**890**		4300		24		99	U	99	U
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	**1100**		**2600**		**95000**		510	U	510	U	510	U
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm	200	U	470		3800		200	U	200	U	200	U
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**2000**		**6400**		**81000**		78	U	78	U	250	
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	**310**		620		**19000**		48	U	48	U	48	U
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm	**651**		**1450**		**35000**		43.6	U	80.3	UJ	193	UJ
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	**510**		**1500**		**46000**		140	U	140	U	210	
S-15	S-15A	City Sampling	5/10/2005	0-10 cm	188		**832**		15000							
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	51	U	51	U	1200	J	51	U	51	U	65	J (JB)
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	14	J	57		1000	J	20	U	20	U	20	U
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	13	J	59		1100	J	20	U	20	U	20	U
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	80		260		2800		59	U	59	U	59	U
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	190	U	120	J	1200	J	190	U	190	U	190	U
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	63	U	340		3400		63	U	63	U	54	J

Location	Sample ID	Monitoring Type SQO Units	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate 900 UG/KG		bis(2-Ethylhexyl)phthalate 1300 UG/KG		Di-n-Octyl Phthalate 6200 UG/KG		4,4'-DDD 16 UG/KG		4,4'-DDE 9 UG/KG		4,4'-DDT 34 UG/KG		Aroclor 1016 UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	95		**2100**		96		2	U	**9.91**		2	U	10	U
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	440		**5700**	B	270									
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	180	Q (J)	**2600**	B (J)	56	U	9.8	U	9.8	U	9.8	U	20	U
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	360		**4700**	B	190		0.99	U	4.2	Y (U)	8.4	Y (U)	29	U
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	270		**4200**	B	180		0.96	U	4	Y (U)	8	Y (U)	29	U
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	19	U	76		19	U	0.39	U	0.39	U	0.39	U	3.9	U
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	180	J (JIS)	**3700**		170	J (JIS)	7	U	7	U	7	U	9.8	U
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	120		**2100**		61									
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	130		**3500**		190		3.9	U	3.9	U	3.9	U	9.9	U
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	240		**4400**	B	190									
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	160	Q (J)	**3500**	B (J)	59	U	9.5	U	9.5	U	9.5	U	20	U
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	210		**4300**	B	300		0.98	U	2.8	Y (U)	5.8	Y (U)	30	U
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	19	U	26		19	U	0.39	U	0.39	U	0.39	U	3.9	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	20	U	85		20	U	2	U	2	U	2	U	9.7	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	19	U	76		19	U	1.9	U	1.9	U	1.9	U	9.7	U
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	120		**1800**	B	59		1.9	U	1.9	U	1.9	U (UJ)	3.9	U
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	81		750		63		0.95	U	0.95	U	1.8	Y (U)	9.2	U
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	19	U	31		19	U	0.4	U	0.4	U	0.4	U	4	U
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	62		1000		57		2	U	2	U	2	U	9.9	U
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	20	U	140		20	U	2	U	2	U	2	U	9.9	U
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	330		**4800**	B	300		4	U	4	U	4	U (UJ)	3.9	U
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	290		**2400**		130		0.98	U	0.98	U	7.2	Y (U)	28	U
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	20	U	91		20	U	0.4	U	0.4	U	0.4	U	4	U
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	190		**3400**		140		7	U	7	U	7	U	9.9	U
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	150		**14000**		140		2	U	2	U	2	U	10	U
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	390		**7900**	B	280		3.9	U	3.9	U	3.9	U (UJ)	3.8	U
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	830		**3600**		170		9	Y (U)	3.9	Y (U)	7.8	Y (U)	29	U
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	19	U	94		19	U	0.38	U	0.38	U	0.38	U	3.8	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	130		**1500**		62	J	7	U	7	U	7	U	9.8	U
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	130		**2400**		100		1.9	U	1.9	U	1.9	U	9.8	U
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	100		1000	B	18	U	1.9	U	1.9	U	1.9	U (UJ)	3.9	U
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	99		1100		84		0.95	U	0.95	U	2.6	Y (U)	27	U
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	440		**7900**		360		9.22	P	**9.39**	**P**	4.1	Y (U)	9.8	U
City Area Locations																		
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	450		**3100**		99	U	6.9		3.4	U	3.4		19	U
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	630		**5100**		510	U	**64**		16	U	16	U	33	U
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm	480		980		200	U	9		3.2	U	3.2	U	32	U
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	**940**		**4500**		1600		**53.9**		**13.8**		**47**		20	U
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	120		1100		48	U	**28**		10	U	23	U	19	U
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm	47.6	U	1250		40.9	U	**35.3**		**23.3**		30.2		6.2	U
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	260		**3000**		140	U	**22**	**J**	9.8	U	**34**	**J**	20	U
S-15	S-15A	City Sampling	5/10/2005	0-10 cm			775				5.9		**18**				9.5	U
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	51	U	930		76	J (JIS)	7	U	7	U	7	U	9.6	U
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	25		500		24		1.9	U	1.9	U	1.9	U	9.7	U
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	26		590		28		1.9	U	1.9	U	1.9	U	9.8	U
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	63		**1600**		67		1.9	U	1.9	U	1.9	U	9.8	U
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	190	U	700	B	190	U								
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	59	J	**2100**		63	U								

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
		SQO															300	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
WC-13	Y4-WC13-Sa	Year 4 OMMP	5/6/2008	0-10 cm	10	U	10	U	10	U	6.4	J	16		21		43	J
WC-13	WC-13-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
WC-13	Y7-WC13-S	Year 7 OMMP	4/20/2011	0-10 cm	20	U	20	U	20	U	29	Y (U)	100		83		180	
WC-13	Y10-WC13-S	Year 10 OMMP	4/29/2014	0-10 cm	29	U	29	U	29	U	36	Y (U)	86		64		150	
WC-13	Y10-WC15-SD	Year 10 OMMP	4/29/2014	0-10 cm	29	U	29	U	29	U	37	Y (U)	81		70		150	
WC-14	WC-14	Year 0 OMMP	4/9/2004	0-10 cm	7.7	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.7	U
WC-14	Y2-WC14-S	Year 2 OMMP	5/15/2006	0-10 cm	9.8	U	9.8	U	9.8	U	38	J (JP)	77		72		190	J
WC-14	WC-14-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm														
WC-14	Y4-WC14-Sa	Year 4 OMMP	5/6/2008	0-10 cm	9.9	U	9.9	U	9.9	U	19		48		57		120	
WC-14	WC-14-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
WC-14	Y7-WC14-S	Year 7 OMMP	4/20/2011	0-10 cm	20	U	20	U	20	U	29	Y (U)	85		71		160	
WC-14	Y10-WC14-S	Year 10 OMMP	4/29/2014	0-10 cm	30	U	30	U	30	U	37	Y (U)	77		61		140	
SC-01	SC-01	Year 0 OMMP	4/8/2004	0-10 cm	7.7	U	3.9	U	3.9	U	3.9	U	3.9	U	3.9	U	7.7	U
SC-01	Y2-SC01-S	Year 2 OMMP	5/16/2006	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
SC-01	Y4-SC01-S	Year 4 OMMP	5/7/2008	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
SC-01	Y7-SC01-S	Year 7 OMMP	4/18/2011	0-10 cm	3.9	U	3.9	U	3.9	U	4.9		19		24		48	
SC-01	Y10-SC01-S	Year 10 OMMP	4/30/2014	0-10 cm	9.2	U	9.2	U	9.2	U	12	Y (U)	20		16		36	
SC-02	SC-02	Year 0 OMMP	4/8/2004	0-10 cm	7.9	U	4	U	4	U	4	U	4	U	4	U	7.9	U
SC-02	Y2-SC02-S	Year 2 OMMP	5/16/2006	0-10 cm	9.9	U	9.9	U	9.9	U	9.9	U	28		32	J (JC)	60	J
SC-02	Y4-SC02-S	Year 4 OMMP	5/7/2008	0-10 cm	9.9	U	9.9	U	9.9	U	13		25		26		64	
SC-02	Y7-SC02-S	Year 7 OMMP	4/18/2011	0-10 cm	3.9	U	3.9	U	3.9	U	17	P (J)	32		37		86	
SC-02	Y10-SC02-S	Year 10 OMMP	4/30/2014	0-10 cm	28	U	34	Y (U)	28	U	28	U	46		44		90	
SC-03	SC-03	Year 0 OMMP	4/8/2004	0-10 cm	8	U	4	U	4	U	4	U	4	U	4	U	8	U
SC-03	Y2-SC03-S	Year 2 OMMP	5/16/2006	0-10 cm	9.9	U	20	U	9.9	U	20	U	36		35	J (JC)	71	J
SC-03	Y4-SC03-S	Year 4 OMMP	5/7/2008	0-10 cm	10	U	10	U	10	U	15		31		20		66	
SC-03	Y7-SC03-S	Year 7 OMMP	4/18/2011	0-10 cm	3.8	U	3.8	U	3.8	U	20		43		57		120	
SC-03	Y10-SC03-S	Year 10 OMMP	4/30/2014	0-10 cm	29	U	29	U	29	U	36	Y (U)	80		68		150	
SC-04	SC-04	Year 0 OMMP	4/8/2004	0-10 cm	7.7	U	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U	7.7	U
SC-04	Y2-SC04-S	Year 2 OMMP	5/16/2006	0-10 cm	9.8	U	20	U	9.8	U	20	U	44		31	J (JC)	75	J
SC-04	Y4-SC04-S	Year 4 OMMP	5/7/2008	0-10 cm	9.8	U	9.8	U	9.8	U	9.6	J	18		18		46	J
SC-04	Y7-SC04-S	Year 7 OMMP	4/18/2011	0-10 cm	3.9	U	3.9	U	3.9	U	3.9	U	14		18		32	
SC-04	Y10-SC04-S	Year 10 OMMP	4/30/2014	0-10 cm	27	U	27	U	27	U	27	U	38		33		71	
NW shoreline under 509 bridge	Y4-SS-01	Year 4 OMMP	5/8/2008	0-10 cm	9.8	U	9.8	U	9.8	U	22	Y (U)	43		30		73	
City Area Locations																		
S-15	Site 15(pre-City dredge)-CIT	City (pre-City dredge)	8/30/2004	0-2 cm	19	U	19	U	19	U	19	U	48		46		94	
S-15	Site 15(post-City dredge)-UT	Utilities' (post-City dredge)	9/18/2004	0-2 cm	33	U	33	U	33	U	130		230		180		**540**	
S-15	Site 15(pre-City dredge)-UT	Utilities' (pre-City dredge)	8/30/2004	0-10 cm	32	U	32	U	32	U	32	U	72		47		35	
S-15	Site 15(post-City dredge)-CI	City (post-City dredge)	9/18/2004	0-10 cm	20	U	20	U	20	U	20	U	287		243		**530**	
S-15	S-15 (Utilities' core)	City Sampling	11/22/2004	0-10 cm	19	U	19	U	19	U	62		120		93		280	
S-15	S-15 (City)	City Sampling	11/30/2004	0-10 cm	6.2	U	6.2	U	6.2	U	6.2	U	165		170		**340**	
S-15	S-15	Year 1 OMMP	5/10/2005	0-10 cm	20	U	20	U	20	U	98		180	J	180		**460**	**J**
S-15	S-15A	City Sampling	5/10/2005	0-10 cm	9.5	U	9.5	U	9.5	U	9.5	U	295		243		**540**	
S-15	Y2-S15-S	Year 2 OMMP	5/15/2006	0-10 cm	9.6	U	9.6	U	9.6	U	9.6	U	12		11		23	
S-15	S-15-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U	9.7	U
S-15	S-15-070516-G-D	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
S-15	Y4-S15-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	8.2	J	9.9		18	J
S-15	S-15-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-15	S-15-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	74.33		1.63											
S-15A	S-15	City Sampling	5/10/2005	0-10 cm	3.1		51.2											
S-16	S-16	City Sampling	11/30/2004	0-10 cm	49.9				760		4200				20			
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	51.1				580		1700				20			
S-16	S-16	City Sampling	5/10/2005	0-10 cm	3.7		59.9											
S-17	S-17	City Sampling	11/30/2004	0-2 cm	49.8				800		2200				13			
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm	74.4		1.9											
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	4.09		55.1		680		2700				13			
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	86.8		3.91		95		400		6	U (UJ)	6	U	0.2	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	81.6		1.62											
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	65.6		4.82		240		1200							
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	38.6		7.62											
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	42.1		4.23											
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	52.65		2.92											
S-18	S-18	City Sampling	12/1/2004	0-7 cm	53.7				39		110				10			
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm	65.1		2.5											
S-19	S-19	City Sampling	11/30/2004	0-10 cm	57.5				610		4500				20			
S-19	S-19	City Sampling	5/10/2005	0-10 cm	5.7		51.1											
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	84.1		1.28		120		590		6	U (UJ)	6	U	0.2	U
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	88.4		0.848											
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	65.9		4.37		200		930							
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	52.3		5.68											
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	56.7		5.71											
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	56.6		5.13											
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	56.73		1.86											
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	53.03		2											
S-20	S-20	City Sampling	11/30/2004	0-2 cm	62.7				620		2000				11			
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm	61.5		2.2											
S-20	S-20	City Sampling	5/10/2005	0-10 cm	3.7		46.7											
S-21	S-21	City Sampling	12/1/2004	0-7 cm	42.3				660		1200				20			
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	41.9				490		960				20			
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm	48.7		4.1											
S-22	S-22	City Sampling	12/1/2004	0-8 cm	49.4				860		1800				10			
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm	66.5		1.9											
S-23	S-23	City Sampling	12/1/2004	0-3 cm	56.1				230		500				12			
S-24	S-24	City Sampling	12/1/2004	0-3 cm	52.9				180		420				10			
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm	78.2		1											
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	4.39		60.1		430		1700				9	U		
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	86.8		2.48		97		410		5	U (UJ)	5	U	0.2	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	85.3		2.4											
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	69		4.33		200		1000							
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	53.6		6.24											
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	68.2		6.28											
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	63.8		1.76											
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm	70.3		1.7											
S-29	S-29	City Sampling	5/10/2005	0-10 cm	3.4		56.3											
S-30	S-30	City Sampling	5/11/2005	0-10 cm	2.1		83.2											
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm	3.4		62.4											
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm	3		47.5											

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm																
S-15A	S-15	City Sampling	5/10/2005	0-10 cm							0.25									
S-16	S-16	City Sampling	11/30/2004	0-10 cm			162		220		**0.75**		38				279		58.6	
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm			157		153		0.51		32				207		47.2	
S-16	S-16	City Sampling	5/10/2005	0-10 cm							0.12									
S-17	S-17	City Sampling	11/30/2004	0-2 cm			119		125		0.48		26				173		23.2	
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm					38.6		0.075						64.3	B		
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm			92.2		87		0.29		26				134		7	
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm			19.9		9		0.04	U	14		0.3	U	43.4		59.1	
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					15		0.06	U					58		48.2	
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm					42		0.08						122		52.5	
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm																
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm																
S-18	S-18	City Sampling	12/1/2004	0-7 cm			77		56		0.16		26				122		2	
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm					26.4		0.097						54.6	B		
S-19	S-19	City Sampling	11/30/2004	0-10 cm			127		182		**0.7**		29				220		52.4	
S-19	S-19	City Sampling	5/10/2005	0-10 cm							0.23									
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm			22		16		0.05	U	18		0.4	U	50		52.3	
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					11		0.04	U					55		61.2	
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm					31		0.12						83		51.2	
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm																
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm																
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm																
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm																
S-20	S-20	City Sampling	11/30/2004	0-2 cm			126		74		0.43		21				111		37.8	
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm					55.7		0.118						83.9	B		
S-20	S-20	City Sampling	5/10/2005	0-10 cm							0.16									
S-21	S-21	City Sampling	12/1/2004	0-7 cm			127		207		**0.9**		34				257		0.7	
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm			145		202		**0.81**		32				251		0.4	
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm					147		0.239						159	B		
S-22	S-22	City Sampling	12/1/2004	0-8 cm			73.1		89		0.42		22				133		1.8	
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm					44.8		0.123	J					71.6	B		
S-23	S-23	City Sampling	12/1/2004	0-3 cm			75.8		98		0.35		24				145		1.6	
S-24	S-24	City Sampling	12/1/2004	0-3 cm			89.8		113		0.4		28				175		5.6	
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm					25.8		0.052						48.6	B		
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm			66		59		0.2		22				105		4.4	
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm			18.7		11		0.17		14		0.3	U	40.3		67.5	
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm					23		0.05						69		65.9	
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm					40		0.1						115		55.3	
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm																
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm																
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm																
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm					48.6		0.0932						71.7	B		
S-29	S-29	City Sampling	5/10/2005	0-10 cm							0.19									
S-30	S-30	City Sampling	5/11/2005	0-10 cm							0.02									
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm							0.13									
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm							0.28									

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm								
S-15A	S-15	City Sampling	5/10/2005	0-10 cm								
S-16	S-16	City Sampling	11/30/2004	0-10 cm	2.6	2.4	2.4		5.5	42.1	9.8	61.6
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	3.3	2.7	2.8		4.1	23.6	12.6	36.2
S-16	S-16	City Sampling	5/10/2005	0-10 cm								
S-17	S-17	City Sampling	11/30/2004	0-2 cm	8.8	5.7	4.8		5.1	32.8	14.9	47.7
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm								
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	2.7	5.4	14.7	18.8	8.6	29	13.7	42.7
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	14.1	12.1	6.9	0.8	1.3	3.4	2.1	5.5
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	13.5	12.6	11.2	4.8	1.4	5.2	3.2	8.3
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	9	7.2	6.4	3.7	2.3	12.1	6.8	18.9
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm								
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm								
S-18	S-18	City Sampling	12/1/2004	0-7 cm	1.4	3.6	16.9		25.4	25	14.8	39.8
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm								
S-19	S-19	City Sampling	11/30/2004	0-10 cm	7.1	7.1	3.2		6.6	40.4	8.9	59.5
S-19	S-19	City Sampling	5/10/2005	0-10 cm								
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	12	12.2	9.1	2.8	1.4	6.2	4.2	10.4
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	14.7	10.8	6.3	1.8	0.6	2.7	1.7	4.5
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	10.5	8.7	7.5	4.1	2.2	10.2	5.6	15.8
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm								
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm								
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm								
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm								
S-20	S-20	City Sampling	11/30/2004	0-2 cm	3.4	5.8	14		4.5	13.1	7.6	20.7
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm								
S-20	S-20	City Sampling	5/10/2005	0-10 cm								
S-21	S-21	City Sampling	12/1/2004	0-7 cm	1	3.2	7.9		8.4	47.5	21.2	68.7
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	0.8	3	7.6		8	49.3	20.7	70
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm								
S-22	S-22	City Sampling	12/1/2004	0-8 cm	0.9	4.5	18.6		6.8	32.3	15.5	47.9
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm								
S-23	S-23	City Sampling	12/1/2004	0-3 cm	1.5	6.2	26.3		4.6	25.3	13.4	38.7
S-24	S-24	City Sampling	12/1/2004	0-3 cm	2.9	7	18.1		6.1	29.2	13.8	43
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm								
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	4.5	7.8	25.4	26.3	6.5	16.5	8.6	25.1
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	11.4	7.3	5.8	3	0.9	2.7	1.5	4.2
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.2	6.9	6.4	3.3	1.4	4.8	2.1	6.9
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	7.6	6.8	7.7	4.6	2.4	10.8	4.8	15.6
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm								
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm								
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm								
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm								
S-29	S-29	City Sampling	5/10/2005	0-10 cm								
S-30	S-30	City Sampling	5/11/2005	0-10 cm								
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm								
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm								

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm									57	U				
S-15A	S-15	City Sampling	5/10/2005	0-10 cm														
S-16	S-16	City Sampling	11/30/2004	0-10 cm									75					
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm									92					
S-16	S-16	City Sampling	5/10/2005	0-10 cm														
S-17	S-17	City Sampling	11/30/2004	0-2 cm									91					
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm									30.1	J				
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm									86	U				
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	40	U	40	U	40	U	40	U	40	U	40	U	40	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	22		20	U	20	U	20	U	20	U	20	U	20	U
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	59	U	59	U	59	U	59	U	59	U	59	U	59	U
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									34	J				
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm									180	U				
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm									66	J				
S-18	S-18	City Sampling	12/1/2004	0-7 cm									120	U				
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm									11					
S-19	S-19	City Sampling	11/30/2004	0-10 cm									95					
S-19	S-19	City Sampling	5/10/2005	0-10 cm														
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	48	U	48	U	48	U	48	U	48	U	48	U	48	U
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	20	U	20	U	20	U	20	U	20	U	20	U	20	U
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									120	U				
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm									62	U				
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm									40	J				
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm									80					
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm									53	J				
S-20	S-20	City Sampling	11/30/2004	0-2 cm									50					
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm									80.6					
S-20	S-20	City Sampling	5/10/2005	0-10 cm														
S-21	S-21	City Sampling	12/1/2004	0-7 cm									300					
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm									410					
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm									206					
S-22	S-22	City Sampling	12/1/2004	0-8 cm									160	U				
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm									76.9					
S-23	S-23	City Sampling	12/1/2004	0-3 cm									140	U				
S-24	S-24	City Sampling	12/1/2004	0-3 cm									150	U				
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm									16.6	J				
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm									42					
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	39	U	39	U	39	U	39	U	39	U	39	U	39	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	22		20	U	20	U	20	U	20	U	20	U	20	U
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	60	U	60	U	60	U	60	U	60	U	60	U	60	U
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm									190	U				
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm									63	U				
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm									57	U				
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm									93.8					
S-29	S-29	City Sampling	5/10/2005	0-10 cm														
S-30	S-30	City Sampling	5/11/2005	0-10 cm														
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm														
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroethane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-15A	S-15	City Sampling	5/10/2005	0-10 cm														
S-16	S-16	City Sampling	11/30/2004	0-10 cm														
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm														
S-16	S-16	City Sampling	5/10/2005	0-10 cm														
S-17	S-17	City Sampling	11/30/2004	0-2 cm														
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm														
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm														
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	40	U	40	U	40	U	400	U	40	U	3.4	U	40	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	59	U	59	U	59	U	590	U	59	U	0.97	U	59	U
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-18	S-18	City Sampling	12/1/2004	0-7 cm														
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm														
S-19	S-19	City Sampling	11/30/2004	0-10 cm														
S-19	S-19	City Sampling	5/10/2005	0-10 cm														
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	48	U	48	U	48	U	480	U	48	U	3.5	U	48	U
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	20	U	20	U	20	U	200	U	20	U	0.97	U	20	U
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-20	S-20	City Sampling	11/30/2004	0-2 cm														
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm														
S-20	S-20	City Sampling	5/10/2005	0-10 cm														
S-21	S-21	City Sampling	12/1/2004	0-7 cm														
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm														
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm														
S-22	S-22	City Sampling	12/1/2004	0-8 cm														
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm														
S-23	S-23	City Sampling	12/1/2004	0-3 cm														
S-24	S-24	City Sampling	12/1/2004	0-3 cm														
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm														
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm														
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	39	U	39	U	39	U	390	U	39	U	3.4	U	39	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	20	U	20	U	200	U	20	U	20	U	20	U
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	60	U	60	U	60	U	600	U	60	U	0.97	U	60	U
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm														
S-29	S-29	City Sampling	5/10/2005	0-10 cm														
S-30	S-30	City Sampling	5/11/2005	0-10 cm														
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm														
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm														

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm					77		57	U	57	U	57	U
S-15A	S-15	City Sampling	5/10/2005	0-10 cm					1340		444		**1430**		**773**	
S-16	S-16	City Sampling	11/30/2004	0-10 cm					550		330		**560**		**700**	
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm					680		170		**770**		400	
S-16	S-16	City Sampling	5/10/2005	0-10 cm					236		86.2		164		101	
S-17	S-17	City Sampling	11/30/2004	0-2 cm					850		190		**650**		370	
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm					270		83		178		130	
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm					590		86	U	240		140	
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	3.4	U	200	U	40	U	40	U	40	U	40	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	100	U	22		20	U	11	J	20	U
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	1	J	300	U	59		59	U	59	U	59	U
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					120		41	J	64		62	
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm					370		180	U	94	J	180	U
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm					400		70	J	90		78	J
S-18	S-18	City Sampling	12/1/2004	0-7 cm					300		120	U	240		150	
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm					122		34.8	J	62.1		52.6	
S-19	S-19	City Sampling	11/30/2004	0-10 cm					660		340		**760**		**980**	
S-19	S-19	City Sampling	5/10/2005	0-10 cm					405		112		296		162	
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	3.5	U	240	U	54		48	U	48	U	48	U
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	100	U	19	J	20	U	15	J	12	J
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	0.75	J	98	U	94		31		60		36	
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					230		91	U	170		120	
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm					250		48	J	84		66	
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm					360		55	J	110		88	
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm					520		97		160		140	
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm					410		80		120		86	
S-20	S-20	City Sampling	11/30/2004	0-2 cm					420		110		320		210	
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm					521		235		**572**		344	
S-20	S-20	City Sampling	5/10/2005	0-10 cm					306		132		297		159	
S-21	S-21	City Sampling	12/1/2004	0-7 cm					1400		530		**3100**		**1600**	
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm					1900		660		**4000**		**2100**	
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm					1070		816		**1840**		**1330**	
S-22	S-22	City Sampling	12/1/2004	0-8 cm					1000		280		**1200**		**620**	
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm					610		150		469		362	
S-23	S-23	City Sampling	12/1/2004	0-3 cm					500		190		**650**		350	
S-24	S-24	City Sampling	12/1/2004	0-3 cm					**2600**		170		**1000**		420	
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm					199		48.2		127		82.5	
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm					390		72		190		130	
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	3.4	U	200	U	39	U	39	U	39	U	39	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	100	U	22		20	U	11	J	11	J
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	1	J	300	U	60	U	60	U	60	U	60	U
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm					110	J	190	U	190	U	190	U
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm					130		63	U	33	J	63	U
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm					89		57	U	34	J	29	J
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm					844		182		**515**	**J**	384	
S-29	S-29	City Sampling	5/10/2005	0-10 cm					324		100		237		131	
S-30	S-30	City Sampling	5/11/2005	0-10 cm					157		37.9		63.9		48.6	
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm					365		97.7		406		207	
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm					486		180		**759**		436	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	170		48	J	31	J	330	J	280		400		140	
S-15A	S-15	City Sampling	5/10/2005	0-10 cm	**2990**		**1770**		599		**9300**		**3230**		**4140**		**1810**	
S-16	S-16	City Sampling	11/30/2004	0-10 cm	**2800**		800		500		**8900**		**4600**		**4500**		930	
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	**1700**		**1100**		280		5100		**2700**		2600		1300	
S-16	S-16	City Sampling	5/10/2005	0-10 cm	518		298		97.6		1500		744		939		410	
S-17	S-17	City Sampling	11/30/2004	0-2 cm	**1500**		**1100**		310		5000		**2900**		2600		1400	
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm	376		194		89.1		1300		790		988		269	
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	870		510		190		2500		2100		2700		900	
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	71		40	U	40	U	71		170		150		59	
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	100		26		20	U	160	J	220		210		95	
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	360		93		59	U	510		930		900		350	
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	880		190		52	J	1400	J	**2500**		2100		890	
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	1100		260		180	U (J)	1800	J	**2700**		2100		940	
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	820		210		150		1800	J	1400		1900		590	
S-18	S-18	City Sampling	12/1/2004	0-7 cm	760		440		120	U	1900		1800		1400		680	
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm	202	J	123		45.3		640		659		323		176	
S-19	S-19	City Sampling	11/30/2004	0-10 cm	**3900**		**2400**		640		4900		**5800**		**5700**		**2600**	
S-19	S-19	City Sampling	5/10/2005	0-10 cm	812		474		141		2400		1030		1280		553	
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	160		59		48	U	270		350		290		140	
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	82		23		20	U	150	J	130		150		64	
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	310		110		40		680		550		650		230	
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1000		310		97	J	1900		2000		2000		800	
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	600		190		70	(J)	1300	J	1300		1000		440	
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	770		240		88	(J)	1700	J	1500		1200		530	
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	860		280		180		2200		1000		1500		480	
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	650		220		160		1700		940		1500		440	
S-20	S-20	City Sampling	11/30/2004	0-2 cm	940		600		160		2800		1700		1600		800	
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm	1380		620		286		4000		1530		2070		687	
S-20	S-20	City Sampling	5/10/2005	0-10 cm	903		490		120		2400		1330		1500		665	
S-21	S-21	City Sampling	12/1/2004	0-7 cm	**6700**		**3400**		**740**		**17000**		**5900**		**5400**		**2800**	
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	**8600**		**4300**		**900**		**22000**		**8000**		**7200**		**3700**	
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm	**4400**		**1960**		**719**		**12000**		**3530**		**4760**		**1760**	
S-22	S-22	City Sampling	12/1/2004	0-8 cm	**2400**		**1600**		410		**7500**		**3800**		3200		**1700**	
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm	1190		717		243		3700		1390		1760		762	
S-23	S-23	City Sampling	12/1/2004	0-3 cm	**1600**		940		220		4500		2400		2100		1100	
S-24	S-24	City Sampling	12/1/2004	0-3 cm	**1600**		860		**730**		**7400**		2400		1900		1100	
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm	326		181		72.2		1000		522		645		212	
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	680		390		140		2000		1400		1600		600	
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	100		24	J	39	U	120	J	230		200		80	
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	150		30		20	U	220	J	350		300		140	
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	330		76		60	U	410		880		800		320	
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	830		180	J	190	U	1100	J	2200		1600		770	
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	390		92		33	J	680	J	990		670		300	
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	290		69		46	J	560	J	630		730		250	
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm	1260		757		328		4300		1620		2070	J	908	
S-29	S-29	City Sampling	5/10/2005	0-10 cm	662		359		120		1900		931		1070		460	
S-30	S-30	City Sampling	5/11/2005	0-10 cm	233		167		47.1		750		490		565		289	
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm	934		540		132		2700		900		1090		449	
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm	**1760**		912		227		4800		1550		1850		838	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	240						440		200		120	
S-15A	S-15	City Sampling	5/10/2005	0-10 cm	1810						2700		**2100**		**1060**	
S-16	S-16	City Sampling	11/30/2004	0-10 cm	990		800		800		**3600**		**2500**		**850**	
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	1400		1000		1000		2000		1400		520	
S-16	S-16	City Sampling	5/10/2005	0-10 cm	413						650		451		264	
S-17	S-17	City Sampling	11/30/2004	0-2 cm	1500		1400		1200		2600		**1600**		560	
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm	293						510		333		170	
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	980		760		750		1500		960		380	
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	100		120		74		190		76		30	J
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	150		130		190		320		120		59	
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	590		480		580		1100		470		390	
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1500		1600		1600		3200		1200		450	
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	1600						2900		1300		**1200**	
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	1000						2000		860		540	
S-18	S-18	City Sampling	12/1/2004	0-7 cm	820		740		740		1500		800		340	
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm	199						260		170		78	
S-19	S-19	City Sampling	11/30/2004	0-10 cm	2600		860		860		**4000**		**2800**		450	
S-19	S-19	City Sampling	5/10/2005	0-10 cm	553						890		639		346	
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	200		240		140		380		170		48	U
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	88		120		72		190		81		39	
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	370		360		280		640		350		240	
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1200		1300		1300		2600		1200		440	
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	690						1200		640		510	
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	860						1500		760		560	
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	770						1400		680		380	
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	740						1400		660		350	
S-20	S-20	City Sampling	11/30/2004	0-2 cm	870		730		730		1500		950		340	
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm	730						960		741		348	
S-20	S-20	City Sampling	5/10/2005	0-10 cm	702						1200		777		440	
S-21	S-21	City Sampling	12/1/2004	0-7 cm	**3100**		1700		1700		3400		**3100**		**1100**	
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	**3900**		2400		2400		**4800**		**4000**		**1300**	
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm	1860						2200		**1740**		**770**	
S-22	S-22	City Sampling	12/1/2004	0-8 cm	1800		1300		1300		2600		**1800**		660	
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm	872						1000		763		385	
S-23	S-23	City Sampling	12/1/2004	0-3 cm	1300		740		740		1500		1300		600	
S-24	S-24	City Sampling	12/1/2004	0-3 cm	1200		830		830		1700		1200		520	
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm	314						340		231		129	
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	730		640		640		1300		690		160	
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	120		150		98		250		96		39	J
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	210		210		250		460		160		72	
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	530		470		460		930		410		330	
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	1300		1200		1200		2400		1000		380	
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	500						900		430		380	
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	440						820		320		190	
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm	1070						1300		931		448	
S-29	S-29	City Sampling	5/10/2005	0-10 cm	484						760		531		295	
S-30	S-30	City Sampling	5/11/2005	0-10 cm	216						260		189		114	
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm	434						660		505		238	
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm	809						1200		956		452	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	57	U	140		2000		57	U	57	U	48	J
S-15A	S-15	City Sampling	5/10/2005	0-10 cm	**234**		**1050**		**18000**							
S-16	S-16	City Sampling	11/30/2004	0-10 cm	60		680		9300		60	U	60	U	47	U
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	140		420		12000		44	U	44	U	64	
S-16	S-16	City Sampling	5/10/2005	0-10 cm	56		255		4200							
S-17	S-17	City Sampling	11/30/2004	0-2 cm	200		480		14000		47	U	47	U	84	
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm	93.2		175		3600		25.4	U	46.8	UJ	62.8	UJ
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	120		400		10000		86	U	86	U	98	
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	40	U	38	J	820	J	40	U	40	U	40	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	16	J	60		1300	J	20	U	20	U	20	U
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	150		480		5300		59	U	59	U	59	U
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	100		460		12000		59	U	59	U	75	
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	180	U	**1400**		14000		180	U	180	U	110	J
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	170		660		9100		82	U	82	U	82	
S-18	S-18	City Sampling	12/1/2004	0-7 cm	120	U	270		7600		120	U	120	U	120	U
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm	27.7		88.1		2000		2.9	UJ	5.4	UJ	43.3	B
S-19	S-19	City Sampling	11/30/2004	0-10 cm	**260**		**790**		**26000**		70	U	70	U	72	
S-19	S-19	City Sampling	5/10/2005	0-10 cm	70.8		329		5700							
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	48	U	53		1600		48	U	48	U	62	J (JB)
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	20	U	38		780		20	U	20	U	20	
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	89		290		3400		20	U	20	U	20	U
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	110	J	440		11000	J	120	U	120	U	120	U
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	38	J	600		6400	J	62	U	62	U	36	J
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	**250**		620		7800		63	U	63	U	54	J
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	110		440		6800		69	U	69	U	38	J
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	100		420		6600		66	U	66	U	43	J
S-20	S-20	City Sampling	11/30/2004	0-2 cm	94		270		8100		31	U	31	U	55	
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm	171		347		7600		30.5	U	56.2	UJ	84	UJ
S-20	S-20	City Sampling	5/10/2005	0-10 cm	92.4		423		7100							
S-21	S-21	City Sampling	12/1/2004	0-7 cm	**320**		**820**		**26000**		230	U	230	U	230	U
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	**390**		**960**		**34000**		230	U	230	U	230	U
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm	**277**		**875**		**18000**		39.4	U	72.6	UJ	36.6	UJ
S-22	S-22	City Sampling	12/1/2004	0-8 cm	160		490		16000		160	U	160	U	160	U
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm	114		421		7500		28.5	U	52.5	U	121	J
S-23	S-23	City Sampling	12/1/2004	0-3 cm	190		460		11000		140	U	140	U	140	U
S-24	S-24	City Sampling	12/1/2004	0-3 cm	150	U	390		10000		150	U	150	U	150	U
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm	73.1		128		2600		24.6	U	45.3	UJ	22.9	UJ
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	58		160		6700		28	U	28	U	110	
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	39	U	45		1100	J	39	U	39	U	39	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	18	J	73		1800	J	20	U	20	U	14	J
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	130		400		4700		60	U	60	U	60	U
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	130	J	380		10000	J	190	U	190	U	190	U
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	63	U	420		4600		63	U	63	U	36	J
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	57	U	210		3600		37	J	57	U	34	J
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm	100		516		8900		28.5	U	51.9	UJ	130	J
S-29	S-29	City Sampling	5/10/2005	0-10 cm	62.4		290		4900							
S-30	S-30	City Sampling	5/11/2005	0-10 cm	20.3		131		2300							
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm	49.3		229		4600							
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm	102		426		8200							

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	68		**1400**		82									
S-15A	S-15	City Sampling	5/10/2005	0-10 cm			937				7.9		**17.4**				13.3	U
S-16	S-16	City Sampling	11/30/2004	0-10 cm	460		**3600**		60	U	6.2		5.6	U	2	U	20	U
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	240		**2400**		44	U	3		2	U	2	U	20	U
S-16	S-16	City Sampling	5/10/2005	0-10 cm			629				2.67	J	1.67	J			7.5	U
S-17	S-17	City Sampling	11/30/2004	0-2 cm	320		**2900**		47	U	4.8		1.9	U	1.9	U	19	U
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm	27.7	U	698	J	124		2.5		2.27	U	6.42		3.8	U
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	190		**2000**		86	U	4.5	J	4.3	U	5	U	20	U
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	28	J	570		45		7	U	7	U	7	U	9.9	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	32		620		26		2	U	2	U	2	U	10	U
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	100		**2400**		68		2	U	2	U	2	U	9.8	U
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	340		**7000**	B	400									
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	290		**6000**		180	U								
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	320		**5200**		82	U								
S-18	S-18	City Sampling	12/1/2004	0-7 cm	270		**2000**	B	120	U	2.9		2	U	2	U	20	U
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm	92.4		313	B	2.8	U	2.55		1.42		8.63		4.2	U
S-19	S-19	City Sampling	11/30/2004	0-10 cm	410		**3200**		70	U	7.9		3.4	U	2	U	20	U
S-19	S-19	City Sampling	5/10/2005	0-10 cm			601				15.4		**12.3**				11.6	U
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	48	U	880		66		7	U	7	U	7	U	9.8	U
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	18	J	300		12	J	1.9	U	1.9	U	1.9	U	9.8	U
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	56		1200		30		1.9	U	1.9	U	1.9	U	9.7	U
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	320		**3600**	B	140									
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	110		**2300**		62	U								
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	190		**2600**		63	U								
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	150		**3500**		69	U								
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	190		**3300**		66	U								
S-20	S-20	City Sampling	11/30/2004	0-2 cm	460		**1500**		31	U	1.7		2	U	2	U	20	U
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm	274	J	674		28.6	U	4.43		2.87	UJ	10.7		4.4	U
S-20	S-20	City Sampling	5/10/2005	0-10 cm			965				11		**12.4**				7.9	U
S-21	S-21	City Sampling	12/1/2004	0-7 cm	280		**2000**	B	230	U	**26**		8.8	U	26	U	20	U
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	340		**2600**	B	230	U	5.2		2	U	2	U	20	U
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm	43	U	652		187	J	**17.5**		**13.6**		18.5		5.8	U
S-22	S-22	City Sampling	12/1/2004	0-8 cm	320		**2200**	B	160	U	3.5		2	U	2	U	20	U
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm	220	J	**1310**		63	J	5.18		2.44	J	7.75		3.86	U
S-23	S-23	City Sampling	12/1/2004	0-3 cm	190		**1500**	B	140	U	4.6		2	U	2	U	20	U
S-24	S-24	City Sampling	12/1/2004	0-3 cm	260		**2000**	B	150	U	6.5		1.9	U	1.9	U	19	U
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm	26.9	U	558		23.1	U	1.84	J	0.963	J	5.66		3.6	U
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	200		**2000**		43		6.6	J	5.5	U	8.9	J	20	U
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	26	J	550		34	J	7	U	7	U	7	U	9.9	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	54		790		29		1.9	U	1.9	U	1.9	U	9.8	U
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	69		**1800**		60	U	1.9	U	1.9	U	1.9	U	9.8	U
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm	310		**4100**	B	190	J								
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm	99		**1400**		63	U								
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm	240		**2600**		77									
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm	307		**1940**		95.6	J	4.94		2.07	J	7.67		3.86	U
S-29	S-29	City Sampling	5/10/2005	0-10 cm			687				7.4		**9.8**				7.6	U
S-30	S-30	City Sampling	5/11/2005	0-10 cm			224				0.571	J	1.82	J			33.5	U
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm			209				6.7		**9.9**				5.3	U
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm			363				5.6		**18.1**				7	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
		SQO															300	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
S-15	S-15-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-15A	S-15	City Sampling	5/10/2005	0-10 cm	13.3	U	13.3	U	13.3	U	13.3	U	300		284		**580**	
S-16	S-16	City Sampling	11/30/2004	0-10 cm	20	U	20	U	20	U	43		50		79		220	
S-16	S-32 (Dup of S-16)	City Sampling	11/30/2004	0-10 cm	20	U	20	U	20	U	20	U	31		20	U	31	
S-16	S-16	City Sampling	5/10/2005	0-10 cm	7.5	U	7.5	U	7.5	U	7.5	U	104		99.7		200	
S-17	S-17	City Sampling	11/30/2004	0-2 cm	19	U	19	U	19	U	20	J	42		26		88	
S-17	S-17 (City)	City Sampling	11/30/2004	0-10 cm	3.8	U	3.8	U	3.8	U	3.8	U	41.4		34.7		76	
S-17	S-17	Year 1 OMMP	5/11/2005	0-10 cm	20	U	20	U	20	U	20	U	30	J	29	J	59	J
S-17	Y2-S17-S	Year 2 OMMP	5/12/2006	0-10 cm	15	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	15	U
S-17	S-17-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	10	U	10	U	10	U	10	U	10	U	10	U	10	U
S-17	Y4-S17-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	6.6	J	15		15		37	J
S-17	S-17-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-17	S-17-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-17	S-17-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-18	S-18	City Sampling	12/1/2004	0-7 cm	20	U	20	U	20	U	22	J	35		23	J	80	
S-18	S-18 (City)	City Sampling	12/1/2004	0-10 cm	4.2	U	4.2	U	4.2	U	4.2	U	38.1		31.8		70	
S-19	S-19	City Sampling	11/30/2004	0-10 cm	20	U	20	U	20	U	30		61		44		140	
S-19	S-19	City Sampling	5/10/2005	0-10 cm	11.6	U	11.6	U	11.6	U	11.6	U	219		178		**400**	
S-19	Y2-S19-S	Year 2 OMMP	5/15/2006	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	11	J	12		23	J
S-19	S-19-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U
S-19	Y4-S19-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	9.7	U	9.7	U	9.7	U	6.8	J	14		14		35	J
S-19	S-19-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-19	S-19-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-19	S-19-200411-G-B	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-19	S-19-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-19	S-19-0280414-DUP	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-20	S-20	City Sampling	11/30/2004	0-2 cm	20	U	20	U	20	U	20	U	18		20	U	18	
S-20	S-20 (City)	City Sampling	11/30/2004	0-10 cm	4.4	U	4.4	U	4.4	U	4.4	U	61.9		59.9		120	
S-20	S-20	City Sampling	5/10/2005	0-10 cm	7.9	U	7.9	U	7.9	U	7.9	U	96.2		85.7		180	
S-21	S-21	City Sampling	12/1/2004	0-7 cm	20	U	20	U	20	U	90		160		120		**370**	
S-21	S-33 (Dup of S-21)	City Sampling	12/1/2004	0-7 cm	20	U	20	U	20	U	25		35		22	J	82	
S-21	S-21 (City)	City Sampling	12/1/2004	0-10 cm	5.8	U	5.8	U	5.8	U	5.8	U	145		145		290	
S-22	S-22	City Sampling	12/1/2004	0-8 cm	20	U	20	U	20	U	23		32		19	J	74	
S-22	S-22 (City)	City Sampling	12/1/2004	0-10 cm	3.86	U	3.86	U	3.86	U	3.86	U	60.3		47.5		110	
S-23	S-23	City Sampling	12/1/2004	0-3 cm	20	U	20	U	20	U	30		40		26		96	
S-24	S-24	City Sampling	12/1/2004	0-3 cm	19	U	19	U	19	U	36		56		37		130	
S-24	S-24 (City)	City Sampling	12/1/2004	0-10 cm	3.6	U	3.6	U	3.6	U	3.6	U	27.4		29		56	
S-24	S-24	Year 1 OMMP	5/11/2005	0-10 cm	20	U	20	U	20	U	24		52	J	56		130	J
S-24	Y2-S24-S	Year 2 OMMP	5/12/2006	0-10 cm	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U	9.9	U
S-24	S-24-070516-G	Year 3 OMMP/City Sampling	5/16/2007	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	9.8	U	18		18	
S-24	Y4-S24-Sa	Year 4/City Sampling	5/6/2008	0-10 cm	9.8	U	9.8	U	9.8	U	9.8	U	12		13		25	
S-24	S-24-260509-G	Year 5 OMMP/City Sampling	5/26/2009	0-10 cm														
S-24	S-24-200411-G	Year 7 OMMP/City Sampling	4/20/2011	0-10 cm														
S-24	S-24-0280414	Year 10 OMMP/City Sampling	4/28/2014	0-10 cm														
S-29	S-29 (City)	City Sampling	12/1/2004	0-10 cm	3.86	U	3.86	U	3.86	U	3.86	U	66		49.7		120	
S-29	S-29	City Sampling	5/10/2005	0-10 cm	7.6	U	7.6	U	7.6	U	7.6	U	140		129		270	
S-30	S-30	City Sampling	5/11/2005	0-10 cm	33.5	U	33.5	U	33.5	U	33.5	U	18.4	U	33.1	J	33	J
CA-19B	CA-19B-03	City Sampling	5/10/2005	0-10 cm	5.3	U	5.3	U	5.3	U	5.3	U	118		113		230	
CA-19B	CA-19B-06	City Sampling	5/10/2005	0-10 cm	7	U	7	U	7	U	7	U	210		216		**430**	

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Total Solids		TOC		TPH Diesel		TPH Motor Oil		Sb		As		Cd	
		SQO											150		57		5.1	
		Units			Percent		Percent		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm	0.71		88.8											
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm	1.8		88.3											
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm	4.1		57.5											
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm	1.3		84.7											
Reference Locations																		
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm	63.7		0.796											
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm	73.5		0.692											
Rinsate Blanks																		
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA					0.25	U	0.5	U	0.05	U	0.05	U	0.002	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA					0.25	U	0.5	U	0.05	U	0.05	U	0.002	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA									0.05	U	0.05	U	0.002	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA					0.25	U	0.5	U						
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA					0.25	U	0.5	U						
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA					0.25	U	0.5	U						
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA														
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA					0.25	U	0.5	U						
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA														
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA			1.5	U										
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA			1.5	U										
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA					0.1	U	0.2	U						
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA					0.1	U	0.2	U						
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA														
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014															
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014						0.1	U	0.2	U						
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014						0.1	U	0.2	U						
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014															

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Cr		Cu		Pb		Hg		Ni		Ag		Zn		Gravel	
		SQO					390		450		0.59		140		6.1		410			
		Units			MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		MG/KG		Percent	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm							0.013	J								
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm							0.04									
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm							0.23									
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm							0.05									
Reference Locations																				
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm															0	
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm															0.1	
Rinsate Blanks																				
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA			0.002		0.04		0.0001	U	0.01	U	0.003	U	0.016			
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA			0.002	U	0.02	U	0.0001	U	0.01	U	0.003	U	0.014			
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA			0.004		0.02	U	0.0001	U	0.01	U	0.003	U	0.017			
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA					0.02	U	0.0001	U					0.01	U		
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA					0.02	U	0.0001	U					0.01	U		
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA					0.02	U	0.0001	U					0.01	U		
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA					0.02	U	0.0001	U					0.01	U		
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA					20	U	0.1	U					10	U		
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA					0.02	U	0.0001	U					0.01	U		
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA																
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA																
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA					0.02	U	0.0001	U					0.01	U		
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA					0.02	U	0.0001	U					0.01	U		
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA					0.02	U	0.0001	U					0.01	U		
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014																	
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014						0.02	U	0.0001	U					0.01	U		
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014						20	U	0.1	U					10	U		
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014						0.02	U	0.0001	U					0.01	U		

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Percent Silt	Percent Clay	Percent Fines
		SQO Units			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm								
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm								
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm								
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm								
Reference Locations												
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm	0.2	0.5	5.8	22.8	22.8	39.3	8.5	47.8
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm	0.2	1.5	12.7	37.2	21	22.3	5.2	27.5
Rinsate Blanks												
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA								
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA								
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA								
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA								
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA								
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA								
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA								
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA								
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA								
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA								
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA								
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA								
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA								
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA								
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014									
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014									
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014									
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014									

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenol		1,3-Dichloro benzene		1,4-Dichloro benzene		1,2-Dichloro benzene		Dibenzofuran		Benzyl Alcohol		2-Methyl phenol	
		SQO			420		170		110		50		540		73		63	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm														
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm														
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm														
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm														
Reference Locations																		
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm														
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm														
Rinsate Blanks																		
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA									1	U				
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA									1	U				
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA									1	U				
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA									1	U				
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	1	U	1	U	1	U	1	U	5	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014										1	U				
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		1	U	1	U	1	U	1	U	1	U	0.4	J	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		1	U	1	U	1	U	1	U	1	U	0.7	J	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		1	U	1	U	1	U	1	U	1	U	2	U	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	4-Methyl phenol		Hexachloroethane		2,4-Dimethylphenol		Benzoic Acid		1,2,4-Trichloro benzene		Hexachloro butadiene		N-Nitroso diphenylamine	
		SQO			670				29		650		51		11		28	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm														
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm														
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm														
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm														
Reference Locations																		
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm														
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm														
Rinsate Blanks																		
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	10	U	1	U	0.05	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	10	U	1	U	0.05	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	10	U	1	U	0.05	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA														
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	10	U	1	U	0.05	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	1	U	1	U	10	U	1	U	0.05	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	10	U	1	U	0.05	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA														
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U	1	U	10	U	1	U	1	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA														
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA														
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U	1	U	1	U	10	U	1	U	1	U	1	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U	1	U	1	U	10	U	1	U	1	U	1	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	1	U	1	U	10	U	1	U	1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014															
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		2	U	2	U	3	U	20	U	1	U	0.1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		2	U	2	U	3	U	20	U	1	U	0.1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		2	U	2	U	3	U	20	U	1	U	0.1	U	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Hexachlorobenzene		Pentachloro phenol		Naphthalene		Acenaphthylene		Acenaphthene		Fluorene	
		SQO			22		360		2100		1300		500		540	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm					78.9		21.2	J	58.8		32	
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm					87.4		15.9	J	56.9		38.6	
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm					**2560**		469		**2960**		**1680**	
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm					99.9		25.5		77.9		38.5	
Reference Locations																
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm												
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm												
Rinsate Blanks																
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	0.05	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	0.05	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	0.05	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA					1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	0.05	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	0.05	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	0.05	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA					1	U	1	U	1	U	1	U
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	5	U	1	U	1	U	1	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA					1	U	1	U	1	U	1	U
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA					1	U	1	U	1	U	1	U
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U	5	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U	5	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	5	U	1	U	1	U	1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014						1	U	1	U	1	U	1	U
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		0.1	U	10	U	1	U	1	U	1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		0.1	U	10	U	1	U	1	U	1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		0.1	U	10	U	1	U	1	U	1	U	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Phenanthrene		Anthracene		2-Methyl naphthalene		LPAH		Fluoranthene		Pyrene		Benzo(a) anthracene	
		SQO			1500		960		670		5200		2500		3300		1600	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm	130		73.3		22.1	J	420		190		212		108	
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm	146		70.5		23.7		440		191		198		89	
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm	**6720**		**2560**		**839**		**18000**		**4090**		**5680**		**2290**	
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm	174		107		35.9		560		257		255		125	
Reference Locations																		
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm														
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm														
Rinsate Blanks																		
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U	1	U			1	U	1	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014		1	U	1	U	1	U			1	U	1	U	1	U
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		1	U	1	U	1	U	1	U	1	U	1	U	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Chrysene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Benzo(b+k) fluoranthenes		Benzo(a) Pyrene		Indeno(1,2,3-cd) Pyrene	
		SQO			2800						3600		1600		690	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm	117						190		135		85.9	
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm	93.6						150		98.9		65.9	
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm	2170						3200		**2590**		**1210**	
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm	127						210		134		86.1	
Reference Locations																
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm												
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm												
Rinsate Blanks																
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U	1	U			1	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA	1	U					1	U	1	U	1	U
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U					1	U	1	U	1	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U					1	U	1	U	1	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U					1	U	1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014		1	U					2	U	1	U	1	U
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		1	U					2	U	1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		1	U					2	U	1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		1	U					2	U	1	U	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Dibenz(a,h) anthracene		Benzo(g,h,i) Perylene		HPAH		Dimethylphthalate		Diethyl Phthalate		Di-n-Butyl Phthalate	
		SQO			230		720		17000		160		200		1400	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm	16.1	J	74.5		1100							
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm	11.4	J	55.2		960							
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm	**267**		**1150**		**23000**							
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm	15.7	J	76.7		1300							
Reference Locations																
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm												
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm												
Rinsate Blanks																
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA	1	U	1	U	1	U						
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA	1	U	1	U	1	U						
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U			1	U	1	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA	1	U	1	U			1	U	1	U	1	U
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014		1	U	1	U			1	U	1	U	1	U
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		1	U	1	U	2	U	1	U	1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		1	U	1	U	2	U	1	U	1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		1	U	0.5	J	0.5	J	1	U	0.7	J	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Butylbenzyl Phthalate		bis(2-Ethylhexyl)phthalate		Di-n-Octyl Phthalate		4,4'-DDD		4,4'-DDE		4,4'-DDT		Aroclor 1016	
		SQO			900		1300		6200		16		9		34			
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm			169	J			0.215	U	0.75	J			3.3	U
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm			159	J			0.71	J	1.15	J			3.3	U
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm			580				2.27	J	**14.4**				8.6	U
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm			206	J			1.45	J	1.25	J			4.3	U
Reference Locations																		
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm														
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm														
Rinsate Blanks																		
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA			1	U									1	U
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	2.6		1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA			3.9										1	U
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA	1	U	28		1	U								
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA	1	U	1	U	1	U								
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	0.2	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	0.2	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	1	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014		1	U	3	U	1	U								
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		1	U	3	U	1	U	0.1	U	0.1	U	0.1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		1	U	0.2	J	1	U	0.1	U	0.1	U	0.1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		1	U	3	U	1	U	0.1	U	0.1	U	0.1	U	1	U

Location	Sample ID	Monitoring Type	Sample Date	Depth Below Mudline	Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Total PCBs	
		SQO															300	
		Units			UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
CA-20	CA-20-01	City Sampling	5/10/2005	0-10 cm	3.3	U	3.3	U	3.3	U	3.3	U	11.1	J	9.4	J	21	J
CA-20	CA-20-04	City Sampling	5/10/2005	0-10 cm	3.3	U	3.3	U	3.3	U	3.3	U	21.3		19		40	
CA-22	CA-22-02	City Sampling	5/10/2005	0-10 cm	8.6	U	8.6	U	8.6	U	8.6	U	240		239		**480**	
CA-22	CA-22-05	City Sampling	5/10/2005	0-10 cm	4.3	U	4.3	U	4.3	U	4.3	U	24.1		25.6		50	
Reference Locations																		
CI-1	Y2-CI-01	Year 2 OMMP	5/18/2006	0-10 cm														
CI-2	Y2-CI-02	Year 2 OMMP	5/18/2006	0-10 cm														
Rinsate Blanks																		
FIELDQC	Y2-RB-01	Year 2 OMMP	5/15/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-02	Year 2 OMMP	5/16/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y2-RB-03	Year 2 OMMP	5/17/2006	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y3-RB-01	Year 3 OMMP	5/17/2007	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-01	Year 4 OMMP	5/6/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB02	Year 4 OMMP	5/7/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y4-RB-03	Year 4 OMMP	5/9/2008	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	Y5-RB-01	Year 5 OMMP	5/26/2009	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FIELDQC	WC-05-RB	Year 3 OMMP/City Sampling	5/17/2007	NA	1	U	1	U	1	U	1	U	1	U	1	U		
FIELDQC	RINSATE BLANK-260509	Year 5 OMMP/City Sampling	5/26/2009	NA														
FieldQC	Rinsate Blank-200411	Year 7 OMMP/City Sampling	4/20/2011	NA														
FieldQC	Y7-RB-01	Year 7 OMMP	4/18/2011	NA	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
FieldQC	Y7-RB-02	Year 7 OMMP	4/20/2011	NA	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
FieldQC	Y7-RB-03	Year 7 OMMP	4/22/2011	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	RB-1-280414	Year 10 OMMP/City Sampling	4/28/2014															
FieldQC	Y10-RB-01	Year 10 OMMP	4/29/2014		1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y10-RB-02	Year 10 OMMP	4/30/2014		1	U	1	U	1	U	1	U	1	U	1	U	1	U
FieldQC	Y10-RB-03	Year 10 OMMP	5/2/2014		1	U	1	U	1	U	1	U	1	U	1	U	1	U

Footnotes:

Laboratory Data Qualifiers

U= result was not detected at or above the method detection limit

J (for Organics)= result is an estimated concentration that is less than the reporting limit, but greater than or equal to the detection limit

B (for metals)= result is an estimated concentration that is less than the reporting limit, but greater than or equal to the detection limit

B (for organics)= analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's reporting limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

Y=analyte is not detected at or above the reported concentrations. The reporting limit is raised due to the chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

Data Validation Qualifiers

U= nondetected at the associated value

J= associated value is considered an estimate; less than verifiable lower calibration point

Acronyms

mg/kg= milligrams per kilogram

ug/kg= micrograms per kilogram

mg/L= milligrams per liter

ug/L= micrograms per liter

SQO= Sediment Quality Objectives for Thea Foss Waterway

Concentrations in bold font indicate an SQO exceedance

APPENDIX H

LABORATORY DATA REPORTS

(ON CD)

APPENDIX I

YEAR 10 ASSESSMENT OF UTILITIES' CAP RECONTAMINATION

YEAR 10 ASSESSMENT OF UTILITIES' CAP RECONTAMINATION
HEAD OF THEA FOSS WATERWAY PROJECT
TACOMA, WASHINGTON

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1.0 INTRODUCTION

This report was prepared on behalf of the "*Utilities*" consisting of the Advance Ross Sub Company, PacifiCorp and Puget Sound Energy. The purpose of the report is to present an updated assessment of the cause of recontamination of the Utilities' cap in the Thea Foss Waterway since the cap was installed in February 2004. Previous recontamination assessments were prepared based on data collected in 2005, 2006, 2007, 2008, 2009 and 2011 in general accordance with the sampling schedule in the Operation, Management and Monitoring Plan (OMMP). Report references are included in Section 7 of this report.

This updated assessment incorporates the results of Year 10 monitoring completed as part of the Utilities' OMMP (Tetra Tech FW and DOF 2003). The update also incorporates supplemental sampling conducted by the City of Tacoma (herein referred to as the City) to assess conditions related to recontamination of the top of the Utilities' cap. Year 10 sampling occurred in April 2014 and was coordinated between the City and the Utilities.

The Thea Foss Waterway is part of the CB/NT Superfund site, located in Tacoma, Washington. The waterway (previously known as the City Waterway) extends north to south along approximately 1.5 miles of the downtown City of Tacoma shoreline (Figure 1). For remediation purposes, the waterway was divided into the "*City Work Area*" and the "*Utilities' Work Area*".

In the Remedial Design/Remedial Action (RD/RA) Consent Decree (CD) between EPA and the Utilities, the Utilities are responsible for cleanup of Remedial Action Areas (RAs) 23 and 24 (RA23/24) from waterway station 72+00 to 80+00. As a result of CD negotiations with the City, the Utilities also agreed to take responsibility for the southern portions of RAs 19b, 20 and 22. The Utilities' Work Area (also known as the "*Head of Thea Foss Waterway Project*") extends from waterway station 70+10 located north of the SR509 bridge, to the southern end of the waterway (station 80+00), including shoreline areas at or below an elevation of +12 feet mean lower low water (MLLW National Tidal Datum Epoch 1960-1978) (Figure 2). A "*transition zone*" is present between the City's Work Area and the Utilities' Work Area and extends from waterway station 70+00 to 70+10. A structural submarine sheet pile wall was installed as a delineator between the two work areas. The Utilities' Work Area covers an area of approximately 9.0 acres.

Construction of the remedy for the Utilities' Work Area was completed in February 2004 (DOF 2004). The Utilities' received Certification of Completion of Remedial Action Construction from the Environmental Protection Agency (EPA) on September 29, 2006 (EPA 2006).

As part of the remedy, deauthorization of the navigation channel beneath the Utilities' Work Area needed to be approved by the U.S. Congress and an Institutional Control Plan

(ICP) needed to be approved by EPA and implemented by the Utilities and the City. The Head of the Waterway was deauthorized by Congress on November 8, 2007 as part of the Water Resources Development Act (DOF 2008). On September 29, 2006, EPA provided final approval of the Utilities' ICP for the long term maintenance of the Head of the Waterway. As of January 10, 2008, all of the restrictive covenants for properties located in the Head of the Waterway were signed and filed with Pierce County. With completion of these remedial tasks, a revised Remedial Action Completion Report (DOF 2008) was submitted to EPA in March 2008. Certification of Completion of Remedial Action for Remedial Action Areas 23 and 24 was received from EPA in June 2008 (EPA 2008).

The selected remedy for the Utilities' area of responsibility was containment of contaminated sediments south of waterway station 70+10. The primary components of the remedy are listed below and are shown on Figure 2.

- Installation of a sheet pile wall at waterway station 70+10.
- Dredging beneath the current location of the scour protection apron at the head of the waterway and placement of capping and scour protection material where stormwater discharges from outfalls known as the "Twin 96" outfalls".
- Placement of a high density polyethylene (HDPE) cap over the former location of the "SR509 seep".
- Placement of a sand cap over contaminated sediments and over the HDPE cap.
- Placement of slope cap and armor material on waterway slopes.

The City was responsible for remediation north of the sheet pile wall installed at waterway station 70+10. Immediately north of the Utilities' Work Area, the City's selected remedy consisted of dredging and capping to maintain the required navigation depth of (–)19 feet MLLW. During the 2003 to 2005 construction seasons, the City completed dredging and capping in part of the area next to the Utilities' sheet pile wall (RA19B, RA20 and RA22 – shown on Figure 3). In September 2004, it was discovered that City dredging had caused suspension and migration of contaminated sediments in the water column. Some of the suspended sediment accumulated on and recontaminated the northern portion of the Utilities' cap (DOF and Tetra Tech EC 2005; DOF 2005). To respond to the dredging recontamination, in December 2005, the City recapped the contaminated portion of the Utilities' cap (generally north of the SR509 bridge) with 6 to 18 inches of fine to medium sand (City of Tacoma et al. 2006). The recapped area is shown on Figure 2.

2.0 YEAR 10 OMMP SAMPLING

Year 10 OMMP sampling occurred between April 28 and May 1, 2014. Sample locations are shown on Figure 3. Sampling was completed by Tetra Tech and the City in accordance with the Utilities' OMMP and several sampling amendments as outlined below. The first set of OMMP revisions called for the addition of a number of sampling locations to monitor the effectiveness of the capping material placed by the City in December 2005 within the northern portion of the Utilities Work Area. The samples were added to address dredging recontamination that occurred during the last quarter of 2004 and included locations S-15, S-17, S-19 and S-24. The final plan for sampling the area of additional cap material placement was submitted to EPA on April 28, 2006 and approved on May 4, 2006.

The second set of OMMP revisions was developed to respond to SQO exceedances for bis(2-ethylhexyl)phthalate (BEHP; also abbreviated as DEHP) related to stormwater discharges to the head of the waterway. On November 28, 2006, the City submitted a technical memorandum to EPA outlining their proposal for additional sampling to monitor concentrations of phthalates and polycyclic aromatic hydrocarbons (PAHs) within the Utilities' Work Area. After further discussions between the parties, a revised supplemental sampling plan was submitted to EPA on March 28, 2007 and approved on April 12, 2007.

The City developed a third set of OMMP revisions for the Head of the Waterway to respond to the sampling results from the Year 4 OMMP sampling program indicating that phthalates and PAHs were continuing to recontaminate the Utilities' cap. As presented in the City's letter to EPA dated January 27, 2009, the City outlined a plan for the collection and analysis of compliance samples (0 to 10 cm) for phthalates and PAHs from the Head of Thea Foss monitoring locations as well as 4 locations from the area of additional cap material placement for a total of 18 samples.

The Utilities and City coordinated the Year 10 OMMP sampling requirements and a single sampling event was conducted within the Utilities' Work Area in late April and early May 2014. The Utilities were responsible for the collection and analysis of early warning, compliance and core samples outlined in the Utilities OMMP while the City was responsible for the collection and analysis of supplemental compliance samples. All laboratory analyses were completed by Analytical Resources Inc. (ARI). Field sampling procedures and observations, data summaries, and comparison of sediment quality data to the SQOs are presented in the Year 10 OMMP report prepared by Tetra Tech (2014). DMD, Inc. (Raleigh Farlow) completed the data quality review (DMD 2014) for the fourteen Utilities' samples. The analytical results for the compliance samples were validated by the City and were received in an excel spread sheet.

The results of the Year 10 analyses are summarized in Table 1. Early warning samples (0 to 2 cm depth interval – top down recontamination sampling) were collected to provide data on the quality of the most recent sediment being deposited within the head of the waterway in surface sediments from sources such as stormwater. Early warning samples were collected from the sediment surface at fourteen locations (RC-1 to RC-14), including three samples (RC-1, RC-13 and RC-14) on the scour protection apron. At any given point in time, this sediment represents the newest deposited sediment for the sample location. Early warning samples were analyzed for the following constituents:

- Total organic carbon (TOC)
- Grain size

- Petroleum hydrocarbons (diesel and heavy-oil range hydrocarbons)
- Metals (lead, mercury, and zinc)
- Polycyclic aromatic hydrocarbons (PAHs)
- Bis(2-ethylhexyl)phthalate (BEHP)
- Polychlorinated biphenyls (PCBs)

Compliance samples (0 to 10 cm depth interval) were collected from eighteen locations including WC-1 to WC-14 and supplemental (City) sample locations S-15, S-17, S-19 and S-24. In addition to the constituents analyzed for the early warning samples, the Utilities' compliance samples were also analyzed for the following constituents:

- Selected semivolatile constituents (including phthalates)
- Pesticides (4,4'-DDE, 4,4'-DDD, 4,4'-DDT)

The supplemental compliance samples were analyzed for the following:

- Phthalates
- PAHs

Sediment cores were collected at six locations (WC-01B, WC-04, WC-05, WC-06, WC-10 and WC-12). The purpose of the core samples was to assess whether upward contaminant migration (bottom up recontamination) is occurring into the sand cap. Samples from the lower portion of the sand cap were analyzed for the same constituents as analyzed for the compliance samples, except for petroleum hydrocarbons.

3.0 COMPLIANCE SAMPLE QUALITY COMPARISON TO SQOS

The sediment point of compliance (POC) is the 0 to 10 cm interval below the sediment surface (or mudline). Compliance samples were obtained and analyzed for the constituents required by the OMMP (Table 1). Comparison of the analytical results of the compliance samples to the SQOs indicated that in Year 10 the following analytical constituents exceeded their respective SQO in one or more samples (SQO exceedances are highlighted by shading in Table 1).

Constituents Above SQOs in Yr. 7 and Yr.10 Surface Sediment Compliance Spls.

Constituent	No. Samples Year 7	Range EFs (Yr. 7)	No. Samples Year 10	Range EFs (Yr. 10)
Zinc	0 of 18	-----	1 of 18	1.04
Phenol	0 of 18	-----	1 of 18	1.1
Benzyl alcohol	9 of 18	1.1	14 of 18	1.2 to 5.2
Benzoic acid	3 of 18	1.01 to 2.0	6 of 18	1.1 to 2.9
BEHP	20 of 22	1.1 to 16	18 of 22	1.1 to 6.3
Phenthrene	1 of 22	1.3	1 of 22	1.2
Total Benzofluoranthene	4 of 22	1.02 to 1.1	1 of 22	1.1

Constituent	No. Samples Year 7	Range EFs (Yr. 7)	No. Samples Year 10	Range EFs (Yr. 10)
Benzo(a)pyrene	0 of 22	-----	1 of 22	1.1
Indeno(1,2,3-cd)pyrene	6 of 22	1.3 to 2.2	1 of 22	1.2
Dibenzo(a,h)anthracene	5 of 22	1.9 to 2.4	1 of 22	1.1
Benzo(ghi)perylene	6 of 22	1.5 to 2.5	2 of 22	1.1 to 1.2
Fluoranthene	6 of 22	1.1 to 1.7	1 of 22	1.5
Pyrene	2 of 22	1.1 to 1.2	0 of 22	-----
Sum HPAHs	4 of 22	1.01 to 1.2	1 of 22	1.1

Notes: EF – Exceedance Factor (concentration divided by SQO)

In Year 10, BEHP exceeded its SQO (1,300 ug/kg) with the greatest frequency (>90% of samples) and by the greatest amount (exceedance frequency [EF] as high as 6.3 – see Figure 4). Overall, the Year 10 BEHP detection frequency and concentrations are similar to those detected in Year 7.

Benzyl alcohol and benzoic acid were the next most frequently detected constituents above their respective SQOs in the Year 10 samples. EFs ranged between 1.1 and 5.2. The exceedance frequency and EFs were higher for the Year 10 samples as compared to the Year 7 samples.

Zinc, phenol, individual PAHs and HPAH were detected in a relatively few number of samples (<10%) at EFs generally less than approximately 1.2. PAH concentrations only exceeded the SQO at two locations as illustrated on Figure 5. In general, there were a lower number of PAH detections above SQOs and the EFs were lower in the Year 10 samples as compared to the surface sediment samples collected in Year 7 (2011).

4.0 POSSIBLE SEDIMENT CONTAMINATION SOURCES

Sources of contamination to surface sediment include:

- **Bottom-up contamination.** This potential source consists of contaminated sediment and coal tar derived material that underlie and are contained by the Utilities' cap (including the SR-509 seep). Year 2 (2006), Year 4 (2008), and Year 7 (2011) OMMP core data indicated the cap was functioning as intended. Cores were obtained during the Year 10 sampling event, the results of which are discussed below.

- **Top-down contamination.** Previous work identified two primary sources of top-down recontamination. These include City dredging contamination that occurred during the fall of 2004 and stormwater discharges to the head of the Thea Foss Waterway. Four stormwater outfalls discharge to the head of the waterway including 237A and 237B (together termed the *"Twin 96" Outfalls*"), 235 and 243 (Figures 2 and 3). The drainage areas and general land uses upstream of these outfalls are summarized below (City of Tacoma 2005):

Outfall Drainage Areas and Land Uses

Outfall	Drainage Area (acres)	Drainage Area (percent)	Land Uses
237A	2,794	57.7	Residential, commercial, industrial
237B	1,821	37.6	Residential
235	181	3.7	Residential, commercial, industrial
243	45	1.0	Industrial
Total	4,841	100	

- **SR0509 Seep**. Prior to remediation of the Utilities' Work Area, a DNAPL seep was present beneath the eastern portion of the SR509 bridge. DNAPL seepage occurred during low tides. A hybrid cap was designed and placed over the seep to stop the DNAPL seepage. No visual sheens have been observed since the Hybrid Cap was installed. The lack of visual sheens indicates that the hybrid cap (HDPE covered by sand) placed over the former SR509 seep is functioning as intended and the former seep is not a source of PAHs to waterway sediments. In addition as noted above, there were a lower number of PAH detections above SQOs and the EFs were lower in the Year 10 samples as compared to the surface sediment samples collected in Year 7 (2011).

5.0 DATA EVALUATION AND INTERPRETATION

Available data continue to indicate that recontamination of waterway sediments, after the Utilities' cap was installed in 2004 within the southern portion of the Thea Foss Waterway, occurred from top-down sources. This finding is based on the following lines of evidence.

5.1 Accumulation of Sediment Above CAP

Since the Utilities' cap was installed, relatively fine-grained sediment has accumulated on top of the cap. Table 3 summarizes the thicknesses and percent fines content for sampling rounds completed between April 2004 (Year 0 OMMP) to April/May 2014 (Year 10 OMMP). In April/May 2014, approximately 15 cm to more than 26 cm of fine grained sediment had accumulated within the small boat turning basin south of the bridge as illustrated on Figure 6. Fine grained sediment thicknesses beneath and north of the SR509 Bridge ranged between 1 and 20 cm, including the area capped by the City in December 2005. Figure 7 illustrates how average thicknesses of accumulated sediment within the turning basin varied between April 2004 and April/May 2014.

As noted in previous reports, the accumulated fine grained sediment is distinctly different from the more granular underlying capping material. The capping material, based on grain size analyses of core samples (Table 1), has a fines content (herein defined as particle sizes less than 62.5 microns) generally less than 4 percent. This compares with an average fines content of approximately 49% for accumulated sediment in the Utilities' Work Area. Capping material also has a low organic carbon content (0.19 to 0.40%) as compared to stormwater sediment (greater than 5% as illustrated on Figure 7).

The average turning basin fines content of the early warning samples collected in April/May 2014 was 50%. The 2014 percentage falls within the range of previous observations (2006 to 2009) as summarized below.

Percent Fines Content of Early Warning Sample Sediment in 2006 to 2014

Monitoring Period	**0 to 2 cm – Turning Basin**	
	Range (%)	**Average (%)**
May 2006	27-52	42
May 2007	24-53	39
May 2008	33-57	45
May 2009	46-71	57
April 2011	17-62	46
April 2014	17-74	49

In areas where the fine grained sediment accumulation is less than the sample interval, the sample may be composed of coarser grained material; a mixture of capping and accumulated sediment. For example, in April 2011 and April/May 2014, sample WC-10 had a fines content of 25.3% and 9% respectively. The WC-10 sample was obtained from 0 to 10 cm and included 7 cm (2011) to 3 cm (2014) of underlying capping material.

The source of accumulated sediment above the capping material is predominately stormwater that discharges to the head of the waterway. This finding is based on comparison of the chemical quality of the accumulated fine-grained sediment with stormwater sediment (collected by in-line sediment traps) that discharges to the waterway as discussed further below.

5.2 Early Warning Sample Quality Comparison to SQOs

Early warning samples collected from the 0 to 2 cm interval provide an indication of the quality of the most recently deposited sediment at any given location and provide an indication of possible SQO exceedances at the POC in the future. The following constituents were detected above SQO concentrations in early warning sediment samples collected in April 2011 and April 2014. At most locations, the early warning and compliance sediment samples are monitoring stormwater sediment being deposited in the waterway.

Exceedance Factors in Early Warning Sediment

Constituent	Exceedance Factor (EF) – April 2011	Exceedance Factor (EF) – April 14	Locations April 2014
Zinc	<1.0 (0 loc.)	1.1	RC-02
Phenanthrene	1.1 to 1.3 (2 loc.)	1.0 or less	RC-02
Fluoranthene	1.1 to 1.8 (7 loc.)	1.0 or less	RC-01, RC-03, RC-04, RC-05, RC-06, RC-13, RC-14
Pyrene	1.0 to 1.2(3 loc.)	<1.0	none
Benzofluoranthenes	1.0 to 1.2(4 loc.)	<1.0	none
Benzo(a)Pyrene	1.1 (1 loc.)	<1.0	none
Indeno(1,2,3-cd)pyrene	1.3 to 1.9 (6 loc.)	1.1 to 1.2	RC-02, RC-04
Benzo(g,h,i)perylene	1.3 to 1.9 (6 loc.)	1.0 to 1.2	RC-02, RC12
HPAH	1.1 to 1.2 (4 loc.)	<1.0	none
BEHP	1.4 to 6.8 (14 loc.)	1.3 to 6.4	RC-01 to RC-9 and RC-11 to RC-14 (all but RC-10)

Note: EF = Exceedance factor (concentration divided by SQO)

In general, the magnitude of PAH exceedances were lower in 2014 as compared to 2011. Similar to previous sampling rounds, in 2014 BEHP was above its SQO in all but one early warning sampling location in the Utilities' Work Area. BEHP EFs in early warning samples ranged between 1.3 and 6.4 with the highest EF being detected at location RC-02.

5.3 Concentration Trends in Early Warning Samples

Figure 8 illustrates average concentrations in early warning and compliance samples collected within the Utilities Work Area (RC-01 to RC-14) between 2004 and 2014. Data used to prepare the histograms are presented in Table 4. Interpretation of the data needs to consider the impacts of the dredging recontamination that occurred in 2004.

In general, constituent concentrations are higher in early warning samples as compared to the compliance samples. The lower compliance sample concentrations are likely caused by mixing with other sediment being deposited in the waterway and degradation. Over the past ten years, the highest average concentrations of lead, mercury, LPAH, HPAH and PCBs in the Utilities Work Area (as a whole) were in 2005 after the dredging recontamination. Concentrations of zinc and lube-oil range hydrocarbons were higher in 2005 as compared to 2006. BEHP was detected at similar concentrations in 2005 and 2006 and does not appear to have been significantly impacted by the 2005 dredging.

Between May 2006 and April/May 2014, the following trends are observed in the sediment data:

- Average concentrations of lead and zinc increased and appear to have stabilized (by 2009) below their respective SQOs.
- Average concentrations of mercury, LPAHs, and HPAHs, were below the SQOs and have fluctuated within a relatively limited range within the Utilities' Work Area.
- Average concentrations of BEHP have fluctuated within a relatively narrow range above the SQO since 2005.
- Average concentrations of PCBs were relatively stable between 2006 and 2009 but appeared to have increased in 2011 and 2014, but are still well below the PCB SQO.
- While an SQO is not available for petroleum hydrocarbons, they are a common component of stormwater sediment. Overall, lube-oil range hydrocarbons increased in concentration between 2006 and 2008 and peaked in 2009. Concentrations in 2011 and 2014 were below the 2009 concentrations and ranged between 3,000 and 4,000 mg/kg.

5.4 Core Samples

Sediment cores were collected to evaluate whether bottom-up migration of contamination into the sediment cap had occurred. The cores extended through the cap into the under lying contaminated sediment at several locations. Samples were obtained from the lower portions of the sand cap and submitted for laboratory analysis of the contaminants of concern. Sample depths below mudline ranged between 1.6 to 2.4 feet and 2.7 to 3.7 feet. Grain size analyses confirmed that samples of the sand cap were analyzed. The fines content of the six core samples was below 4% and ranged between 1.0 and 3.5%.

The results of the laboratory analyses are summarized in Table 1. No constituent concentrations exceeded an SQO in any of the six core samples. No evidence of upward migration was detected in any of the samples based on the following:

- Zinc was detected in all the samples within a narrow range of 32 mg/kg to 41 mg/kg. These concentrations represent natural concentrations for the capping material and are well below natural background concentrations (85 mg/kg) for the Puget Sound region (Ecology 1994).
- Pesticides, PCBs and most semi-volatile organic compounds were not detected in any of the core samples.
- Lead, mercury and organic compounds were not detected in core samples from locations WC-04, WC-06 and WC-10.
- Organic compound detections in core samples are summarized in the following table.

Detected Organic Constituents in Core Samples

Constituent	WC-01B (ug/kg)	WC-05 (ug/kg)	WC-12 (mg/kg)	SQO (ug/kg)
Sample Interval (feet)	2.4-3.4	2.7-3.7	1.6-2.4	-----
BEHP	Nd	28	52	1300
Naphthalene	Nd	Nd	5.8	2100
Phenanthrene	Nd	Nd	7.8	1500
Total LPAH	Nd	Nd	13.6	5200
Benzo(a)Anthracene	Nd	Nd	6.8	1600
Chrysene	Nd	Nd	7.8	2800
Total Benzofluoranthenes	Nd	Nd	14	3600
Fluoranthene	6.0	6.7	9.7	2500
Pyrene	6.0	7.7	16	3300
Total HPAH	12	14	54	17000

Note: Nd - Not Detected (reporting limits are listed in Table 1)

The detected organic constituents are likely associated with stormwater or bottom particulates entrained in the cap during placement. Core location WC-12 had the greatest number of detections, highest concentrations and is closest to the City Work areathat had not been remediated by the time the Utilities cap had been placed.

5.5 Comparison of Accumulated Sediment Quality with Stormwater Sediment Quality

As noted in previous Utilities' OMMP reports, stormwater sediment contains a typical suite of chemicals. These chemicals include petroleum hydrocarbons, metals and organic chemicals such as polycyclic aromatic hydrocarbons (PAHs) and phthalates. Pesticides and polychlorinated biphenyls (PCBs) are also commonly detected in stormwater sediments.

Since the mid- to late-1990's, Tacoma has implemented, with oversight by Ecology and EPA, a program to assess stormwater quality using in-line sediment-traps placed within portions of their stormwater conveyance system. Sediments collected by these traps are recovered and analyzed on an annual basis. Typically the traps are deployed in the fall (beginning of the wet season) and are recovered in the spring (near the end of the wet season). Several of the traps are placed immediately upstream of where stormwater discharges into the head of Thea Foss.

Stormwater sediment quality data for outfalls that discharge to the Head of Thea Foss are summarized for the period 2002 to 2013 in Table 5 (from Table D-15, City of Tacoma 2011 and Table D-8 City of Tacoma 2014). Data for 2014 is not yet available. Metals, petroleum hydrocarbons, PAHs, phthalates, and PCBs were detected in stormwater sediment collected by the sediment traps. These are the same constituents that were also detected in the accumulated sediment present on top of the Utilities' cap.

5.6 Sediment Quality Correlations and Trends – HPAHs and BEHP

Previous analyses (DOF 2006, 2007, 2008, 2009 and 2011) documented a high correlation between HPAHs and BEHP in surface sediment samples collected within the Utilities' Work Area and a similarity in trends between the surface sediment and stormwater sediment discharged to the head of the waterway. The trend is illustrated on Figure 9.

The primary source of contamination for the early warning OMMP sediment samples is interpreted to be stormwater discharges to the Head of the Thea Foss Waterway. Figure 10 shows a plot of stormwater sediment-trap sediment concentrations from traps installed near the outlets of outfalls that discharge to the head of Thea Foss, and early-warning post-remedy bottom sediment concentrations. Sediment trap data used to prepare the plots (2002 to 2013) are summarized in Table 5. Two concentration patterns are evident in the data. Sediment from the larger outfalls (237A and 237B) is enriched with HPAHs relative to BEHP as compared to the smaller outfalls (235 and 243).

Figure 10 also includes plots of the early warning sediment data collected between 2004 and 2014 to compare the relationship between HPAH and BEHP in early warning sediment samples (not significantly impacted by the dredging recontamination) and stormwater sediment collected by the sediment traps. As shown on Figure 10, the comparison indicates a similar relationship exists between HPAH and BEHP in most of the early warning sediment in the waterway and sediment being discharged from outfalls 237A and 237B. This relationship indicates the primary sources of BEHP and HPAHs to surface sediment are the Twin 96" Outfalls, which is not surprising because they contribute approximately 95% of the stormwater discharge to the head of Thea Foss based on drainage basin area.

Figure 11 shows the relationship between lead, HPAH and BEHP concentrations (mean and median concentrations) in sediment samples from the sediment traps (by outfall) and from the turning basin (early warning and compliance samples). Lead was included in the analysis because it does not degrade, has low solubility, and may be an indicator of physical mixing of sediment from the various sources. Data used to prepare Figure 11 are summarized in Table 6. The median concentration is used in the following discussion.

Lead concentrations in the smaller outfalls are substantially higher as compared to the larger outfalls. The median concentrations in the smaller outfall sediment traps ranged between 134 and 711 mg/kg while the concentrations in the larger outfall traps ranged between 41 and 71 mg/kg. The higher large outfall lead concentration sediment is contributed by Outfall 237A that includes a higher proportion of commercial and industrial landuses as compared to Outfall 237B.

Lead concentrations in turning basin sediment ranged between 86 mg/kg (compliance samples) and 92 mg/kg (early warning samples) similar to or slightly above the sediment collected from the larger outfall sediment traps. The close correspondence between the bottom sediment concentrations and the Outfall 237A sediment trap concentrations suggests that Outfall 237A is contributing a larger proportion of sediment to the waterway as compared to Outfall 237B.

HPAH concentrations in the sediment traps connected to the larger outfalls are higher than those detected in the traps connected to the smaller outfalls. HPAH concentrations in sediment from Outfall 237A (25,190 ug/kg) are substantially higher as compared to the other outfalls (6,690 to 12,260 ug/kg). Turning basin bottom sediment concentrations ranged between approximately 11,000 and 12,000 ug/kg. Assuming that Outfall 237A is contributing a greater amount of sediment as compared to Outfall 237B (based on drainage basin area and lead concentrations), the data suggest that HPAH concentrations significantly decline as sediment is discharged to the waterway and deposited on the bottom.

BEHP concentrations in the sediment traps connected to the smaller outfalls are higher than those detected in the traps connected to the larger outfalls. BEHP concentrations in the smaller outfalls ranged between approximately 14,450 and 15,800 ug/kg while those from the larger outfalls ranged between approximately 4,160 and 6,900 ug/kg. Turning basin bottom sediment concentrations ranged between 4,200 and 5,600 ug/kg. BEHP concentrations show a similar pattern as HPAH concentrations (i.e. sediment trap concentrations are similar to or higher than the bottom sediment concentrations). As with the HPAH concentration data, the data suggest that BEHP concentrations in stormwater sediment decline with discharge to the waterway.

6.0 SUMMARY AND FINDINGS

- Remediation of the Utilities' Work Area was completed in February 2004 with final placement of capping material. OMMP sampling was completed in April 2004 (Year 0 – baseline), May 2005 (Year 1), May 2006 (Year 2), May 2007 (Year 3), May 2008 (Year 4), May 2009 (Year 5), April 2011 (Year 7) and April/May 2014 (Year 10). The Utilities' sampling in 2014 consisted of collecting and analyzing early warning "*top-down*" recontamination samples (0 to 2 cm), waterway and slope compliance samples (0 to 10 cm) and core "*bottom up*" recontamination samples. The City obtained and analyzed supplemental compliance samples (0 to 10 cm) from a number of locations in the Utilities' Work Area north of the SR509 Bridge. Visual observations during low tides of the former SR509 Seep area were also made.

- BEHP exceeded its SQO (1,300 ug/kg) in the compliance samples obtained in most of the Utilities Work Area. PAHs also exceeded SQOs in a few compliance samples, but at lower exceedance factors and fewer locations as compared to BEHP.

- Potential sediment recontamination sources identified near the Head of Thea Foss Waterway between February 2004 and April/May 2014 include stormwater (on-going) and dredging (2004) top-down sources and upward migration of contaminants contained by the Utilities' cap (bottom up source). Visual observations during low tides of the former SR509 Seep area indicate the impermeable hybrid cap is preventing the upward migration of DNAPL that would cause visual sheens. Cores obtained on May 1, 2014 indicated the Utilities' cap is functioning as intended.

- Contamination of the Utilities' Work Area (top of cap) began soon after the cap was installed. Finer grained sediment (as compared to the capping material) began to accumulate and concentrations of BEHP, PAHs and other contaminants began to increase. The source of this contamination is stormwater discharges based on the following lines of evidence:

    - Core samples obtained from near the bottom of the sand cap meet SQOs, and show little evidence of upward contaminant migration.

    - Accumulation of finer grained sediment on top of the Utilities' cap. The finer grained sediment contains contaminants typical of stormwater discharges.

    - High correlation and similar concentration trends between HPAHs and BEHP in early warning sediment samples between April 2004 and April 2014 indicate a similar source.

    - Similarity of the HPAH and BEHP trend relationship in early warning sediment samples with the trend relationship of stormwater sediment samples collected near the end of the Twin 96" outfalls. These data indicate that the Twin 96" outfalls are the primary source of PAHs and BEHP to the Head of the Thea Foss Waterway.

7.0 REFERENCES

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8.0 CLOSING

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Dalton, Olmsted & Fuglevand, Inc.

Matthew G Dalton

Matthew G. Dalton
Sr. Consulting Hydrogeologist.

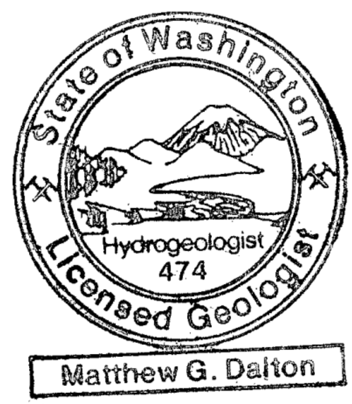


TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

						TPH-Dx (mg/kg)		Pb	Hg	Zn
Field I.D.	Comments	Sample Date	Lab I.D.	% solids	% TOC	Diesel-range	Lube-range	7439-92-1	7439-97-6	7440-66-6
0 to 2 cm Samples										
RC-01 (0-2)	0-2 cm surficial	4/30/2014	148334-YI60M	46	9.1	660	**3300**	**92**	**0.11**	**275**
RC-02 (0-2)	0-2 cm surficial	4/29/2014	148247-YI42C	33	-----	1500	**6700**	**130**	**0.17**	**470**
RC-03 (0-2)	0-2 cm surficial	4/30/2014	148332-YI60K	64	3.1	240	**1200**	**28**	**0.06**	**104**
RC-04 (0-2)	0-2 cm surficial	4/29/2014	148248-YI42D	42	-----	900	**4800**	**107**	**0.20**	**342**
RC-05 (0-2)	0-2 cm surficial	4/30/2014	148339-YI60R	37	5.4	1200	**5900**	**111**	**0.20**	**375**
RC-06 (0-2)	0-2 cm surficial	4/30/2014	148333-YI60L	35	5.5	890	**4200**	**117**	**0.21**	**358**
RC-07 (0-2)	0-2 cm surficial	4/30/2014	148338-YI60Q	42	3.8	870	**3900**	**101**	**0.18**	**353**
RC-08 (0-2)	0-2 cm surficial	4/29/2014	148260-YI43K	43	5.0	810	**3900**	**99**	**0.18**	**288**
RC-09 (0-2)	0-2 cm surficial	4/29/2014	148258-YI43I	42	3.7	880	**4400**	**101**	**0.18**	**293**
RC-10 (0-2)	0-2 cm surficial	4/30/2014	148340-YI60S	70	1.7	170	**820**	**28**	**0.08**	**87**
RC-11 (0-2)	0-2 cm surficial	4/29/2014	148259-YI43J	35	5.1	940	**4600**	**124**	**0.47**	**332**
RC-12 (0-2)	0-2 cm surficial	4/29/2014	148257-YI43H	46	3.1	530	**2400**	**87**	**0.22**	**217**
RC-13 (0-2)	0-2 cm surficial	4/30/2014	148335-YI60N	41	3.6	920	**3700**	**103**	**0.20**	**320**
RC-14 (0-2)	0-2 cm surficial	4/30/2014	148336-YI60O	46	2.1	890	**3800**	**76**	**0.20**	**283**
RC-15 (0-2)	field dup. of RC-14 (0-2)	4/30/2014	148337-YI60P	46	3.6	860	**3600**	**98**	**0.11**	**295**
0 to 10 cm Samples										
WC-01 (0-10)	0-10 cm surficial	4/30/2014	148324-YI60C	58	5.7	540	**2800**	**115**	**0.09**	**212**
WC-02 (0-10)	0-10 cm surficial	4/29/2014	148245-YI42A	34	-----	1200	**5600**	**116**	**0.21**	**428**
WC-03 (0-10)	0-10 cm surficial	4/30/2014	148322-YI60A	73	2.6	88	**430**	**19**	**0.04**	**79**
WC-04 (0-10)	0-10 cm surficial	4/29/2014	148246-YI42B	49	-----	760	**3900**	**77**	**0.16**	**237**
WC-05 (0-10)	0-10 cm surficial	4/30/2014	148328-YI60G	40	6.5	1000	**4400**	**110**	**0.24**	**347**
WC-06 (0-10)	0-10 cm surficial	4/30/2014	148323-YI60B	42	0.99	640	**3000**	**111**	**0.20**	**315**
WC-07 (0-10)	0-10 cm surficial	4/30/2014	148327-YI60F	43	3.8	1100	**3500**	**101**	**0.17**	**301**
WC-08 (0-10)	0-10 cm surficial	4/29/2014	148250-YI43A	45	5.6	680	**3600**	**98**	**0.24**	**291**
WC-09 (0-10)	0-10 cm surficial	4/29/2014	148252-YI43C	44	4.2	780	**4300**	**104**	**0.22**	**311**
WC-10 (0-10)	0-10 cm surficial	4/30/2014	148331-YI60J	84	1.6	110	**540**	**19**	**0.04**	**64**
WC-11 (0-10)	0-10 cm surficial	4/29/2014	148251-YI43B	37	4.9	900	**4400**	**117**	**0.27**	**317**
WC-12 (0-10)	0-10 cm surficial	4/29/2014	148256-YI43G	52	3.2	490	**2400**	**70**	**0.20**	**187**
WC-13 (0-10)	0-10 cm surficial	4/29/2014	148253-YI43D	44	3.5	590	**3200**	**87**	**0.22**	**247**
WC-15 (0-10)	field dup. of WC-13 (0-10)	4/29/2014	148254-YI43E	45	3.1	670	**3400**	**88**	**0.19**	**252**
WC-14 (0-10)	0-10 cm surficial	4/29/2014	148255-YI43F	55	3.9	650	**3300**	**62**	**0.13**	**211**
S-15	0-10 cm surficial	4/28/2014	148173-YI27A	74	1.6	-----	-----	-----	-----	-----
S-17	0-10 cm surficial	4/28/2014	148176-YI27C	53	2.9	-----	-----	-----	-----	-----
S-19	0-10 cm surficial	4/28/2014	148174-YI27B	57	1.9	-----	-----	-----	-----	-----
S-24	0-10 cm surficial	4/28/2014	148177-YI-27E	64	1.8	-----	-----	-----	-----	-----
0 to 10 cm Slope Samples										
SC-01 (0-10)	0-10 cm surficial	4/30/2014	148329-YI60H	79	1.6	120	**620**	**32**	**0.03**	**101**
SC-02 (0-10)	0-10 cm surficial	4/30/2014	148330-YI60I	63	3.4	480	**2500**	**83**	**0.10**	**231**
SC-03 (0-10)	0-10 cm surficial	4/30/2014	148325-YI60D	52	3.3	580	**2900**	**92**	**0.12**	**273**
SC-04 (0-10)	0-10 cm surficial	4/30/2014	148326-YI60E	66	3.4	240	**1000**	**41**	**0.06**	**122**

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

						TPH-Dx (mg/kg)		Pb	Hg	Zn
Field I.D.	Comments	Sample Date	Lab I.D.	% solids	% TOC	Diesel-range	Lube-range	7439-92-1	7439-97-6	7440-66-6
Core Samples										
WC-01B-Ca3	core, 2.4-3.4'	5/1/2014	148501-YI87B	82	0.40	-----	-----	2 U	0.03 U	**32**
WC-04-Cb3	core, 1.9-2.9'	5/1/2014	148504-YI87E	87	0.22	-----	-----	2 U	0.03 U	**41**
WC-05-Ca3	core, 2.7-3.7'	5/1/2014	148506-YI87G	84	0.19	-----	-----	2 U	0.02 U	**37**
WC-06-Ca3	core, 1.6-2.6'	5/1/2014	148500-YI87A	83	0.21	-----	-----	2 U	0.03 U	**36**
WC-10-Cb3	core, 2.9-3.8'	5/1/2014	148505-YI87F	88	0.16	-----	-----	2 U	0.02 U	**36**
WC-12-Cb3	core, 1.6-2.4'	5/1/2014	148502-YI87C	85	0.21	-----	-----	**2**	0.02 U	**35**
WC-15-CD	field dup. of WC-12-Cb3	5/1/2014	148503-YI87D	88	0.19	-----	-----	2 U	0.02 U	**35**
Commencement Bay										
SQO :	-----	-----	-----	-----	-----	-----	-----	*450*	*0.59*	*410*

Notes:

metals - mg/kg, dry *U = nondetected at the associated value*

organics - µg/kg, dry *J = associated value is considered an estimate due to a variety of factors*

Shaded value exceeds SQO

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	% gravel > 2000 µm	% v. coarse sand 1000-2000 µm	% coarse sand 500-1000 µm	% med. sand 250-500 µm	% fine sand 125-250 µm	% v. fine sand 62-125 µm	% silt 3.9-62.5 µm	% clay < 3.9 µm	% fines < 62.5 µm	Phenol 108-95-2	1,3-Dichloro-benzene 541-73-1	1,4-Dichloro-benzene 106-46-7	Benzyl alcohol 100-51-6	1,2-Dichloro-benzene 95-50-1	2-Methyl-phenol 95-48-7	4-Methyl-phenol 106-44-5
0 to 2 cm Samples																
RC-01 (0-2)	16.3	7.5	8.2	14.2	11.4	8.1	23.9	10.3	34.2	-----	-----	-----	-----	-----	-----	-----
RC-02 (0-2)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RC-03 (0-2)	0.6	6.5	13.5	25.3	23.5	8.8	14.2	7.6	21.8	-----	-----	-----	-----	-----	-----	-----
RC-04 (0-2)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
RC-05 (0-2)	2.6	2.8	3.9	6.3	8.8	8.5	52.6	14.4	67.0	-----	-----	-----	-----	-----	-----	-----
RC-06 (0-2)	4.7	1.8	2.1	5.0	6.0	6.2	65.9	8.3	74.2	-----	-----	-----	-----	-----	-----	-----
RC-07 (0-2)	2.7	4.6	6.9	15.1	13.4	6.9	40.6	9.9	50.5	-----	-----	-----	-----	-----	-----	-----
RC-08 (0-2)	0.7	4.2	7.1	12.6	10.9	7.6	42.7	14.1	56.8	-----	-----	-----	-----	-----	-----	-----
RC-09 (0-2)	0.4	1.5	4.1	13.4	13.5	7.5	45.5	14.2	59.7	-----	-----	-----	-----	-----	-----	-----
RC-10 (0-2)	24.2	8.8	14.9	18.6	12.9	3.6	9.7	7.4	17.1	-----	-----	-----	-----	-----	-----	-----
RC-11 (0-2)	17.5	2.0	2.9	4.3	3.8	4.3	49.3	16.0	65.3	-----	-----	-----	-----	-----	-----	-----
RC-12 (0-2)	0.2	3.4	7.7	13.6	8.8	5.0	43.3	17.9	61.2	-----	-----	-----	-----	-----	-----	-----
RC-13 (0-2)	3.5	4.2	4.7	10.3	18.0	12.9	32.2	14.3	46.5	-----	-----	-----	-----	-----	-----	-----
RC-14 (0-2)	2.4	3.4	6.9	12.4	21.8	19.5	24.1	9.5	33.6	-----	-----	-----	-----	-----	-----	-----
RC-15 (0-2)	2.2	3.1	6.0	12.9	21.2	19.7	25.7	9.2	34.9	-----	-----	-----	-----	-----	-----	-----
0 to 10 cm Samples																
WC-01 (0-10)	8.7	5.6	8.2	23.9	14.6	8.4	23.2	7.4	30.6	**340**	69 U	69 U	**280**	69 U	69 U	**76**
WC-02 (0-10)	-----	-----	-----	-----	-----	-----	-----	-----	-----	**420**	150 U	150 U	**380 J**	150 U	150 U	**170**
WC-03 (0-10)	7.0	6.1	14.0	30.6	24.2	6.8	7.2	4.2	11.4	**65**	56 U	56 U	56 U	56 U	56 U	56 U
WC-04 (0-10)	-----	-----	-----	-----	-----	-----	-----	-----	-----	**280**	82 U	82 U	**130 J**	82 U	82 U	**70 J**
WC-05 (0-10)	1.1	2.3	3.9	8.0	11.3	9.7	49.2	14.3	63.5	**420**	110 U	110 U	**310**	110 U	110 U	**110 J**
WC-06 (0-10)	0.3	1.8	2.9	7.1	11.1	6.6	58.8	11.4	70.2	**470**	97 U	97 U	**160**	97 U	97 U	**97**
WC-07 (0-10)	3.1	4.4	7.1	15.5	13.9	6.7	36.8	12.5	49.3	**380**	85 U	85 U	**180**	85 U	**85**	**85**
WC-08 (0-10)	0.6	3.1	7.2	14.5	11.4	7.7	42.5	13.4	55.8	**370**	99 U	99 U	**89 J**	99 U	99 U	**84 J**
WC-09 (0-10)	0.2	1.7	3.0	10.4	11.7	8.0	49.5	15.5	65.0	**230**	110 U	110 U	**110 J**	110 U	110 U	**97 J**
WC-10 (0-10)	49.1	10.9	11.4	11.0	6.6	1.8	5.3	3.7	9.0	56 U	56 U	56 U	56 U	56 U	56 U	56 U
WC-11 (0-10)	5.1	2.5	3.5	5.1	4.7	4.9	58.9	15.3	74.2	**360**	130 U	130 U	**150 J**	130 U	130 U	**95 J**
WC-12 (0-10)	4.4	5.8	11.6	16.6	8.4	4.2	33.7	15.3	49.0	**220**	67 U	67 U	**88 J**	67 U	67 U	**64 J**
WC-13 (0-10)	2.8	2.8	5.8	14.5	13.9	7.1	40.5	12.8	53.3	**340**	92 U	92 U	**130 J**	92 U	92 U	92 U
WC-15 (0-10)	7.0	3.1	5.8	13.8	12.7	6.6	37.7	13.4	51.1	**290**	93 U	93 U	**130 J**	93 U	93 U	**79 J**
WC-14 (0-10)	0.8	1.7	5.7	22.0	23.3	8.5	27.2	10.9	38.1	**150**	77 U	77 U	**85 J**	77 U	77 U	77 U
S-15	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-17	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-19	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-24	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
0 to 10 cm Slope Sa																
SC-01 (0-10)	40.6	10.7	12.0	14.4	8.5	3.6	6.0	4.2	10.2	60 U	60 U	60 U	60 U	60 U	60 U	60 U
SC-02 (0-10)	14.3	7.6	13.5	18.8	11.0	4.9	19.7	10.0	29.7	**160**	62 U	62 U	**65**	62 U	62 U	62 U
SC-03 (0-10)	10.7	3.8	5.5	10.8	14.5	13.6	25.0	15.9	40.9	**220**	78 U	78 U	**170**	78 U	78 U	78 U
SC-04 (0-10)	41.4	11.8	14.6	9.4	3.2	2.0	9.2	8.2	17.4	**100**	58 U	58 U	**58**	58 U	58 U	58 U

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	% gravel > 2000 µm	% v. coarse sand 1000-2000 µm	% coarse sand 500-1000 µm	% med. sand 250-500 µm	% fine sand 125-250 µm	% v. fine sand 62-125 µm	% silt 3.9-62.5 µm	% clay < 3.9 µm	% fines < 62.5 µm	Phenol 108-95-2	1,3-Dichloro-benzene 541-73-1	1,4-Dichloro-benzene 106-46-7	Benzyl alcohol 100-51-6	1,2-Dichloro-benzene 95-50-1	2-Methyl-phenol 95-48-7	4-Methyl-phenol 106-44-5
Core Samples																
WC-01B-Ca3	29.3	17.1	18.4	20.2	10.3	1.3	-----	-----	3.5	20 U	20 U	20 U	20 U	20 U	20 U	20 U
WC-04-Cb3	23.2	23.2	20.7	20.6	9.1	1.5	-----	-----	1.7	19 U	19 U	19 U	19 U	19 U	19 U	19 U
WC-05-Ca3	25.8	17.9	18.9	23.6	11.2	1.5	-----	-----	1.0	19 U	19 U	19 U	19 U	19 U	19 U	19 U
WC-06-Ca3	16.8	19.1	22.8	27.2	11.2	1.4	-----	-----	1.6	19 U	19 U	19 U	19 U	19 U	19 U	19 U
WC-10-Cb3	37.0	19.1	17.3	17.5	7.2	0.5	-----	-----	1.4	19 U	19 U	19 U	19 U	19 U	19 U	19 U
WC-12-Cb3	26.9	13.6	18.7	25.9	11.4	1.3	-----	-----	2.2	19 U	19 U	19 U	19 U	19 U	19 U	19 U
WC-15-CD	25.0	19.8	21.2	20.7	9.6	1.5	-----	-----	2.1	19 U	19 U	19 U	19 U	19 U	19 U	19 U
Commencement Bay																
SQO :	-----	-----	-----	-----	-----	-----	-----	-----	-----	*420*	*170*	*110*	*73*	*50*	*63*	*670*

Notes:

metals - mg/kg, dry *U = nondetected at the associated value*

organics - µg/kg, dry *J = associated value is considered an estimate due to a variety of factors*

Shaded value exceeds SQO

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	Hexachloro-ethane 67-72-1	2,4-Dimethyl-phenol 105-67-9	Benzoic acid 65-85-0	1,2,4-Trichloro-benzene 120-82-1	Naphthalene 91-20-3	2-Methyl-naphthalene 91-57-6	1-Methyl-naphthalene 90-12-0	Dimethyl-phthalate 131-11-3	Acenaph-thylene 208-96-8	Acenaphthene 83-32-9	Dibenzo-furan 132-64-9	Diethyl-phthalate 84-66-2	Fluorene 86-73-7	N-Nitroso-diphenylamine 86-30-6	Pentachloro-phenol 87-86-5
0 to 2 cm Samples															
RC-01 (0-2)	-----	-----	-----	-----	**110 J**	**69 J**	**69 J**	-----	140 U	**48 J**	**42 J**	-----	**56 J**	-----	-----
RC-02 (0-2)	-----	-----	-----	-----	**240**	**100 J**	230 U	-----	230 U	**80 J**	**92 J**	-----	**100 J**	-----	-----
RC-03 (0-2)	-----	-----	-----	-----	**64 J**	98 U	98 U	-----	98 U	98 U	98 U	-----	98 U	-----	-----
RC-04 (0-2)	-----	-----	-----	-----	**310**	**130 J**	**130 J**	-----	180 U	**72 J**	**63 J**	-----	**63 J**	-----	-----
RC-05 (0-2)	-----	-----	-----	-----	**290**	**120 J**	**120 J**	-----	**46 J**	**64 J**	**55 J**	-----	**64 J**	-----	-----
RC-06 (0-2)	-----	-----	-----	-----	**350**	**150 J**	**85 J**	-----	**51 J**	**77 J**	**68 J**	-----	**77 J**	-----	-----
RC-07 (0-2)	-----	-----	-----	-----	**330**	**130 J**	**130 J**	-----	150 U	**83 J**	**60 J**	-----	**68 J**	-----	-----
RC-08 (0-2)	-----	-----	-----	-----	**260**	**100 J**	**100 J**	-----	**38 J**	**61 J**	**46 J**	-----	**69 J**	-----	-----
RC-09 (0-2)	-----	-----	-----	-----	**270**	**98 J**	**98 J**	-----	**45 J**	**71 J**	**62 J**	-----	**54 J**	-----	-----
RC-10 (0-2)	-----	-----	-----	-----	**78 J**	**34 J**	98 U	-----	98 U	98 U	98 U	-----	98 U	-----	-----
RC-11 (0-2)	-----	-----	-----	-----	**540**	**240**	**240**	-----	**80 J**	**130 J**	**80 J**	-----	**130 J**	-----	-----
RC-12 (0-2)	-----	-----	-----	-----	**660**	**240**	**140 J**	-----	**110 J**	**230**	**80 J**	-----	**150 J**	-----	-----
RC-13 (0-2)	-----	-----	-----	-----	**180**	**100 J**	**100 J**	-----	**39 J**	**86 J**	**86 J**	-----	**86 J**	-----	-----
RC-14 (0-2)	-----	-----	-----	-----	**100 J**	**68 J**	**45 J**	-----	150 U	**53 J**	**45 J**	-----	**60 J**	-----	-----
RC-15 (0-2)	-----	-----	-----	-----	**110 J**	**62 J**	160 U	-----	160 U	**47 J**	**55 J**	-----	**55 J**	-----	-----
0 to 10 cm Samples															
WC-01 (0-10)	69 U	35 U	**1000**	69 U	**100**	**52 J**	**55 J**	69 U	**28 J**	**34 J**	**45 J**	69 U	**72**	69 U	340 U
WC-02 (0-10)	150 U	75 U	**1900 J**	150 U	**230**	**120 J**	**74 J**	**59 J**	**59 J**	**96 J**	**110 J**	150 U	**110 J**	150 U	**240 J**
WC-03 (0-10)	56 U	29 U	**250 J**	56 U	**42 J**	**20 J**	56 U	56 U	56 U	56 U	56 U	56 U	**20 J**	56 U	280 U
WC-04 (0-10)	82 U	42 U	**490 J**	82 U	**270**	**100**	**62 J**	82 U	**45 J**	**62 J**	**58 J**	82 U	**62 J**	82 U	410 U
WC-05 (0-10)	110 U	57 U	**1400**	110 U	**260**	**120**	**120**	**72 J**	**67 J**	**67 J**	**67 J**	110 U	**89 J**	110 U	560 U
WC-06 (0-10)	97 U	50 U	**1400**	97 U	**360**	**140**	**73 J**	97 U	97 U	**73 J**	**63 J**	97 U	**88 J**	97 U	490 U
WC-07 (0-10)	85 U	43 U	**1300**	85 U	**290**	**93**	**80 J**	85 U	**55 J**	**100**	**76 J**	85 U	**120**	85 U	420 U
WC-08 (0-10)	99 U	50 U	**320 J**	99 U	**360**	**150**	**79 J**	99 U	**69 J**	**99**	**79 J**	99 U	**89 J**	99 U	490 U
WC-09 (0-10)	110 U	58 U	1100 U	110 U	**340**	**120**	**74 J**	110 U	**63 J**	**85 J**	**63 J**	110 U	**85 J**	110 U	570 U
WC-10 (0-10)	56 U	29 U	560 U	56 U	**48 J**	**22 J**	56 U	56 U	56 U	**17 J**	56 U	56 U	**17 J**	56 U	280 U
WC-11 (0-10)	130 U	65 U	**410 J**	130 U	**680**	**250**	**140**	130 U	**130**	**200**	**89 J**	130 U	**150**	130 U	630 U
WC-12 (0-10)	67 U	34 U	670 U	67 U	**710**	**240**	**120**	**27 J**	**120**	**180**	**74**	67 U	**140**	67 U	340 U
WC-13 (0-10)	92 U	47 U	**310 J**	92 U	**320**	**120**	**74 J**	**32 J**	**51 J**	**78 J**	**60 J**	92 U	**69 J**	92 U	460 U
WC-15 (0-10)	93 U	47 U	**290 J**	93 U	**290**	**120**	**69 J**	**56 J**	**56 J**	**83 J**	**56 J**	93 U	**74 J**	93 U	460 U
WC-14 (0-10)	77 U	39 U	770 U	77 U	**170**	**73 J**	**42 J**	77 U	**35 J**	**46 J**	**35 J**	77 U	**38 J**	77 U	380 U
S-15	-----	-----	-----	-----	**77**	**31 J**	57 U	57 U	57 U	57 U	57 U	57 U	57 U	-----	-----
S-17	-----	-----	-----	-----	**400**	**150**	**70 J**	82 U	**70 J**	**90**	**66 J**	82 U	**78 J**	-----	-----
S-19	-----	-----	-----	-----	**520**	**180**	**130**	69 U	**97**	**160**	**80**	69 U	**140**	-----	-----
S-24	-----	-----	-----	-----	**89**	**46 J**	57 U	37 J	57 U	**34 J**	57 U	57 U	**29 J**	-----	-----
0 to 10 cm Slope Sa															
SC-01 (0-10)	60 U	31 U	600 U	60 U	**30 J**	**18 J**	60 U	60 U	60 U	60 U	60 U	60 U	**15 J**	60 U	300 U
SC-02 (0-10)	62 U	32 U	**220 J**	62 U	**71**	**34 J**	**34 J**	**22 J**	62 U	**28 J**	**37 J**	62 U	**28 J**	62 U	310 U
SC-03 (0-10)	78 U	40 U	**740 J**	78 U	**110**	**54 J**	**54 J**	**39 J**	78 U	**35 J**	**46 J**	78 U	**58 J**	78 U	390 U
SC-04 (0-10)	58 U	30 U	**190 J**	58 U	**52 J**	**29 J**	58 U	58 U	**15 J**	**18 J**	**18 J**	58 U	**20 J**	58 U	290 U

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	Hexachloro-ethane 67-72-1	2,4-Dimethyl-phenol 105-67-9	Benzoic acid 65-85-0	1,2,4-Trichloro-benzene 120-82-1	Naphthalene 91-20-3	2-Methyl-naphthalene 91-57-6	1-Methyl-naphthalene 90-12-0	Dimethyl-phthalate 131-11-3	Acenaph-thylene 208-96-8	Acenaphthene 83-32-9	Dibenzo-furan 132-64-9	Diethyl-phthalate 84-66-2	Fluorene 86-73-7	N-Nitroso-diphenylamine 86-30-6	Pentachloro-phenol 87-86-5
Core Samples															
WC-01B-Ca3	20 U	25 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	99 U
WC-04-Cb3	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	97 U
WC-05-Ca3	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	96 U
WC-06-Ca3	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	96 U
WC-10-Cb3	19 U	23 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	93 U
WC-12-Cb3	19 U	24 U	190 U	19 U	**5.8 J**	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	97 U
WC-15-CD	19 U	24 U	190 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	96 U
Commencement Bay															
SQO :	-----	*29*	*650*	*51*	*2100*	*670*	-----	*160*	*1300*	*500*	*540*	*200*	*540*	*28*	*360*

Notes:

metals - mg/kg, dry *U = nondetected at the associated value*
organics - µg/kg, dry *J = associated value is considered an estimate due to a variety of factors*
Shaded value exceeds SQO

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

	Phenanthrene	Anthracene	total LPAH	Di-n-butyl-phthalate	Fluoranthene	Pyrene	Butylbenzyl-phthalate	Benzo(a)-anthracene	*bis* (2-Ethylhexyl)-phthalate	Chrysene	Di-n-octyl-phthalate	total Benzo-fluoranthenes	Benzo(a)-pyrene	Indeno(1,2,3-cd)pyrene
Field I.D.	85-01-8	120-12-7	-	84-74-2	206-44-0	129-00-0	85-68-7	56-55-3	117-81-7	218-01-9	117-84-0	-	50-32-8	193-39-5
0 to 2 cm Samples														
RC-01 (0-2)	**880**	**150**	**1244**	-----	**1600**	**1500**	-----	**690**	**5600**	**1100**	-----	**2000**	**890**	**370**
RC-02 (0-2)	**1300**	**240**	**1960**	-----	**2200**	**2100**	-----	**850**	**8300**	**1500**	-----	**2600**	**1100**	**740**
RC-03 (0-2)	**280**	**49 J**	**393**	-----	**470**	**470**	-----	**250**	**1700**	**410**	-----	**760**	**350**	**210**
RC-04 (0-2)	**1100**	**210**	**1755**	-----	**2200**	**2300**	-----	**870**	**5600**	**1600**	-----	**2800**	**1300**	**800**
RC-05 (0-2)	**930**	**190**	**1584**	-----	**1800**	**1800**	-----	**790**	**7400**	**1400**	-----	**2900**	**1200**	**480**
RC-06 (0-2)	**970**	**210**	**1735**	-----	**2200**	**2300**	-----	**870**	**6100**	**1400**	-----	**2900**	**1300**	**540**
RC-07 (0-2)	**760**	**260**	**1501**	-----	**1600**	**1800**	-----	**670**	**6900**	**1200**	-----	**2400**	**970**	**410**
RC-08 (0-2)	**710**	**160**	**1298**	-----	**1500**	**1500**	-----	**580**	**3800**	**980**	-----	**2000**	**860**	**520**
RC-09 (0-2)	**800**	**160 J**	**1400**	-----	**1500**	**1600**	-----	**640**	**5700**	**1100**	-----	**2100**	**1000**	**620**
RC-10 (0-2)	**190**	**49 J**	**317**	-----	**360**	**380**	-----	**150**	**880**	**220**	-----	**510**	**230**	**88 J**
RC-11 (0-2)	**930**	**300**	**2110**	-----	**1900**	**2600**	-----	**720**	**6600**	**1100**	-----	**2200**	**1100**	**590**
RC-12 (0-2)	**1000**	**390**	**2540**	-----	**1900**	**2400**	-----	**760**	**4000**	**1100**	-----	**2000**	**1100**	**650**
RC-13 (0-2)	**1200**	**200**	**1791**	-----	**2500**	**2600**	-----	**1100**	**4700**	**1600**	-----	**3000**	**1400**	**570**
RC-14 (0-2)	**1100**	**160**	**1473**	-----	**2200**	**2100**	-----	**890**	**5300**	**1500**	-----	**2600**	**1200**	**350**
RC-15 (0-2)	**990**	**150 J**	**1352**	-----	**1400**	**1200**	-----	**750**	**5000**	**1200**	-----	**2300**	**980**	**450**
0 to 10 cm Samples														
WC-01 (0-10)	**850**	**150**	**1234**	**52 J**	**1900**	**1600**	**160**	**730**	**2300**	**1100**	**150**	**2000**	**860**	**410**
WC-02 (0-10)	**1800**	**310**	**2605**	**260**	**3700**	**3300**	**400**	**1400**	**8200**	**2200**	**500**	**4100**	**1700**	**820**
WC-03 (0-10)	**160**	**31 J**	**253**	**20 J**	**360**	**350**	**59**	**130**	**1100**	**240**	**42 J**	**440**	**190**	**140**
WC-04 (0-10)	**920**	**200**	**1559**	**230**	**1900**	**2000**	**390**	**790**	**5200**	**1300**	**230**	**2900**	**1200**	**470**
WC-05 (0-10)	**850**	**200**	**1533**	**84 J**	**2000**	**2000**	**600**	**670**	**7400**	**1300**	**590**	**2500**	**970**	**450**
WC-06 (0-10)	**880**	**210**	**1611**	**110**	**1900**	**2100**	**370**	**740**	**5600**	**1300**	**260**	**2500**	**1100**	**660**
WC-07 (0-10)	**1200**	**300**	**2065**	**140**	**2200**	**2200**	**380**	**780**	**5200**	**1200**	**250**	**2300**	**1000**	**410**
WC-08 (0-10)	**1200**	**260**	**2077**	**140**	**2200**	**2400**	**300**	**960**	**6200**	**1600**	**220**	**3300**	**1500**	**600**
WC-09 (0-10)	**1100**	**230**	**1903**	**110**	**2000**	**2100**	**410**	**830**	**6400**	**1400**	**300**	**3300**	**1400**	**640**
WC-10 (0-10)	**140**	**39 J**	**261**	56 U	**240**	**260**	**56**	**100**	**480**	**150**	56 U	**340**	**140**	**73**
WC-11 (0-10)	**1200**	**400**	**2760**	**120 J**	**1900**	**2600**	**370**	**820**	**6500**	**1300**	**480**	**3000**	**1300**	**440**
WC-12 (0-10)	**1000**	**360**	**2510**	**57 J**	**1400**	**1800**	**250**	**680**	**3400**	**1000**	**110**	**2600**	**1200**	**330**
WC-13 (0-10)	**830**	**210**	**1558**	**100**	**1600**	**1700**	**360**	**700**	**4700**	**1100**	**190**	**2800**	**1000**	**390**
WC-15 (0-10)	**750**	**180**	**1433**	**100**	**1400**	**1400**	**270**	**600**	**4200**	**1000**	**180**	**2400**	**930**	**330**
WC-14 (0-10)	**560**	**140**	**989**	**73 J**	**1100**	**1200**	**210**	**490**	**4300**	**830**	**300**	**1900**	**720**	**250**
S-15	**170**	**48 J**	**295**	**48 J**	**280**	**400**	**68**	**140**	**1400**	**240**	**82**	**440**	**200**	**120**
S-17	**820**	**210**	**1668**	**82**	**1400**	**1900**	**320**	**590**	**5200**	**1000**	82 U	**2000**	**860**	**540**
S-19	**860**	**280**	**2057**	**38 J**	**1000**	**1500**	**150**	**480**	**3500**	**770**	69 U	**1400**	**680**	**380**
S-24	**290**	**69**	**511**	34 J	**630**	**730**	**240**	**250**	**2600**	**440**	**77**	**820**	**320**	**190**
0 to 10 cm Slope Sa														
SC-01 (0-10)	**180**	**170**	**395**	**27 J**	**380**	**340**	**81**	**140**	**750**	**230**	**63**	**460**	**190**	**93**
SC-02 (0-10)	**260**	**53 J**	**440**	**59 J**	**670**	**640**	**290**	**240**	**2400**	**430**	**130**	**840**	**310**	**170**
SC-03 (0-10)	**710**	**140**	**1053**	78 U	**1800**	**1600**	**830**	**620**	**3600**	**1100**	**170**	**2000**	**820**	**420**
SC-04 (0-10)	**220**	**41 J**	**366**	58 U	**460**	**430**	**99**	**150**	**1100**	**290**	**84**	**550**	**220**	**130**

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	Phenanthrene 85-01-8	Anthracene 120-12-7	total LPAH -	Di-n-butyl-phthalate 84-74-2	Fluoranthene 206-44-0	Pyrene 129-00-0	Butylbenzyl-phthalate 85-68-7	Benzo(a)-anthracene 56-55-3	*bis* (2-Ethylhexyl)-phthalate 117-81-7	Chrysene 218-01-9	Di-n-octyl-phthalate 117-84-0	total Benzo-fluoranthenes -	Benzo(a)-pyrene 50-32-8	Indeno(1,2,3-cd)pyrene 193-39-5
Core Samples														
WC-01B-Ca3	20 U	20 U	20 U	20 U	**6.0 J**	**6.0 J**	20 U	20 U	50 U	20 U	20 U	40 U	20 U	20 U
WC-04-Cb3	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	48 U	19 U	19 U	39 U	19 U	19 U
WC-05-Ca3	19 U	19 U	19 U	19 U	**6.7 J**	**7.7 J**	19 U	19 U	**28 J**	19 U	19 U	38 U	19 U	19 U
WC-06-Ca3	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	48 U	19 U	19 U	38 U	19 U	19 U
WC-10-Cb3	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	46 U	19 U	19 U	37 U	19 U	19 U
WC-12-Cb3	**7.8 J**	19 U	**13.6**	19 U	**9.7 J**	**16 J**	19 U	**6.8 J**	**52**	**7.8 J**	19 U	**14 J**	19 U	19 U
WC-15-CD	**5.8 J**	19 U	**6**	19 U	**4.8 J**	**7.7 J**	19 U	19 U	48 U	19 U	19 U	38 U	19 U	19 U
Commencement Bay														
SQO :	*1500*	*960*	*5200*	*1400*	*2500*	*3300*	*900*	*1600*	*1300*	*2800*	*6200*	*3600*	*1600*	*690*

Notes:

metals - mg/kg, dry *U = nondetected at the associated value*
organics - µg/kg, dry *J = associated value is considered an estimate due to a variety of factors*
Shaded value exceeds SQO

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	Dibenz(a,h)-anthracene 53-70-3	Benzo(g,h,i)-perylene 191-24-2	total HPAH -	4,4'-DDE 72-55-9	4,4'-DDD 72-54-8	4,4'-DDT 50-29-3	Hexachloro-benzene 118-74-1	Hexachloro-butadiene 87-68-3	Aroclor 1016 12674-11-2	Aroclor 1242 53469-21-9	Aroclor 1248 12672-29-6	Aroclor 1254 11097-69-1	Aroclor 1260 11096-82-5	Aroclor 1221 11104-28-2	Aroclor 1232 11141-16-5	total PCBs
0 to 2 cm Samples																
RC-01 (0-2)	**97 J**	**370**	**8617**	-----	-----	-----	-----	-----	28 U	28 U	35 U	**80**	**75**	28 U	28 U	**155**
RC-02 (0-2)	**180 J**	**890**	**12,160**	-----	-----	-----	-----	-----	30 U	30 U	45 U	**130**	**110**	30 U	30 U	**240**
RC-03 (0-2)	**64 J**	**230**	**3214**	-----	-----	-----	-----	-----	28 U	28 U	28 U	**40**	**38**	28 U	28 U	**78**
RC-04 (0-2)	**210**	**720**	**12,800**	-----	-----	-----	-----	-----	29 U	29 U	44 U	**110**	**72**	29 U	29 U	**182**
RC-05 (0-2)	**140 J**	**690**	**11,200**	-----	-----	-----	-----	-----	9.9 U	9.9 U	49 U	**120**	**83**	9.9 U	9.9 U	**203**
RC-06 (0-2)	**140 J**	**590**	**12,240**	-----	-----	-----	-----	-----	30 U	30 U	44 U	**140**	**100**	30 U	30 U	**240**
RC-07 (0-2)	**110 J**	**360**	**9520**	-----	-----	-----	-----	-----	9.4 U	47 U	9.4 U	**93**	**75**	9.4 U	9.4 U	**168**
RC-08 (0-2)	**140 J**	**570**	**8650**	-----	-----	-----	-----	-----	29 U	29 U	37 U	**99**	**75**	29 U	29 U	**174**
RC-09 (0-2)	**180**	**720**	**9460**	-----	-----	-----	-----	-----	29 U	29 U	36 U	**100**	**89**	29 U	29 U	**189**
RC-10 (0-2)	98 U	**88 J**	**2026**	-----	-----	-----	-----	-----	9.8 U	9.8 U	12 U	**27**	**24**	9.8 U	9.8 U	**51**
RC-11 (0-2)	**160 J**	**630**	**11,000**	-----	-----	-----	-----	-----	30 U	30 U	37 U	**110**	**88**	30 U	30 U	**198**
RC-12 (0-2)	**190**	**740**	**10,840**	-----	-----	-----	-----	-----	30 U	30 U	37 U	**100**	**83**	30 U	30 U	**183**
RC-13 (0-2)	**160**	**590**	**13,520**	-----	-----	-----	-----	-----	30 U	30 U	59 U	**100**	**140 J**	30 U	30 U	**240**
RC-14 (0-2)	**110 J**	**340**	**11,290**	-----	-----	-----	-----	-----	28 U	28 U	28 U	**63**	**74**	28 U	71 U	**137**
RC-15 (0-2)	**130 J**	**440**	**8850**	-----	-----	-----	-----	-----	30 U	30 U	30 U	**73**	**63**	30 U	30 U	**136**
0 to 10 cm Samples																
WC-01 (0-10)	**130**	**460**	**9190**	2.3 U	0.97 U	4.8 U	**1.2**	0.97 U	28 U	28 U	36 U	**96**	**69**	28 U	28 U	**165**
WC-02 (0-10)	**250**	**870**	**18,340**	7.0 U	3.0 U	17 U	**3.6**	3.0 U	30 U	30 U	44 U	**110**	**73**	30 U	30 U	**183**
WC-03 (0-10)	**42 J**	**190**	**2082**	0.97 U	0.97 U	2.0 U	**0.50 J**	0.97 U	9.4 U	9.4 U	12 U	**23**	**18**	9.4 U	9.4 U	**41**
WC-04 (0-10)	**130**	**490**	**11,180**	4.3 U	8.8 U	7.8 U	**10**	0.99 U	28 U	28 U	35 U	**95**	**65**	28 U	28 U	**160**
WC-05 (0-10)	**150**	**500**	**10,540**	5.1 U	11 U	8.7 U	**2.9 J**	0.97 U	28 U	28 U	42 U	**110**	**82**	28 U	28 U	**192**
WC-06 (0-10)	**190**	**820**	**11,310**	4.9 U	11 U	8.4 U	**2.9**	0.98 U	28 U	28 U	43 U	**120**	**100**	28 U	28 U	**220**
WC-07 (0-10)	**140**	**430**	**10,660**	4.4 U	12 U	8.1 U	**2.0**	0.97 U	29 U	29 U	43 U	**94**	**77**	29 U	29 U	**171**
WC-08 (0-10)	**170**	**560**	**13,290**	4.2 U	0.99 U	7.1 U	**2.0**	0.99 U	29 U	29 U	37 U	**92**	**78**	29 U	29 U	**170**
WC-09 (0-10)	**170**	**530**	**12,370**	6.1 U	2.3 U	12 U	**3.6**	2.3 U	28 U	28 U	42 U	**110**	**87**	28 U	28 U	**197**
WC-10 (0-10)	**31 J**	**73**	**1407**	0.94 U	0.94 U	1.9 U	0.94 U	0.94 U	8.6 U	8.6 U	8.6 U	**19**	**16**	8.6 U	8.6 U	**35**
WC-11 (0-10)	**130**	**490**	**11,980**	5.9 U	2.5 U	11 U	**2.5 J**	2.5 U	29 U	29 U	58 U	**150**	**89**	29 U	29 U	**239**
WC-12 (0-10)	**100**	**330**	**9440**	3.9 U	0.99 U	7.6 U	**1.4**	0.99 U	28 U	28 U	43 U	**87**	**62**	28 U	28 U	**149**
WC-13 (0-10)	**110**	**380**	**9780**	4.2 U	0.99 U	8.4 U	**2.0**	0.99 U	29 U	29 U	36 U	**86**	**64**	29 U	29 U	**150**
WC-15 (0-10)	**93**	**400**	**8553**	4.0 U	0.96 U	8.0 U	**2.8**	0.96 U	29 U	29 U	37 U	**81**	**70**	29 U	29 U	**151**
WC-14 (0-10)	**77**	**260**	**6827**	2.8 U	0.98 U	5.8 U	**1.4**	0.98 U	30 U	30 U	37 U	**77**	**61**	30 U	30 U	**138**
S-15	57 U	**140**	**1960**	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-17	**170**	**660**	**9120**	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-19	**110**	**440**	**6760**	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-24	57 U	**210**	**3590**	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
0 to 10 cm Slope Sa																
SC-01 (0-10)	**33 J**	**100**	**1966**	0.95 U	0.95 U	1.8 U	**0.48 J**	0.95 U	9.2 U	9.2 U	12 U	**20**	**16**	9.2 U	9.2 U	**36**
SC-02 (0-10)	**50 J**	**180**	**3530**	0.98 U	0.98 U	7.2 U	**1.2 J**	0.98 U	28 U	28 U	28 U	**46**	**44**	28 U	34 U	**90**
SC-03 (0-10)	**120**	**470**	**8950**	3.9 U	9.0 U	7.8 U	**2.3**	0.97 U	29 U	29 U	36 U	**80**	**68**	29 U	29 U	**148**
SC-04 (0-10)	**32 J**	**160**	**2422**	0.95 U	0.95 U	2.6 U	**0.67 J**	0.95 U	27 U	27 U	27 U	**38**	**33**	27 U	27 U	**71**

TABLE 1 - Summary of Year 10 Post-Construction Sediment Data

Field I.D.	Dibenz(a,h)-anthracene 53-70-3	Benzo(g,h,i)-perylene 191-24-2	total HPAH -	4,4'-DDE 72-55-9	4,4'-DDD 72-54-8	4,4'-DDT 50-29-3	Hexachloro-benzene 118-74-1	Hexachloro-butadiene 87-68-3	Aroclor 1016 12674-11-2	Aroclor 1242 53469-21-9	Aroclor 1248 12672-29-6	Aroclor 1254 11097-69-1	Aroclor 1260 11096-82-5	Aroclor 1221 11104-28-2	Aroclor 1232 11141-16-5	total PCBs
Core Samples																
WC-01B-Ca3	20 U	20 U	**12**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	14 U	9.6 U
WC-04-Cb3	19 U	19 U	39 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	24 U	9.5 U
WC-05-Ca3	19 U	19 U	**14**	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	9.5 U	24 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
WC-06-Ca3	19 U	19 U	38 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	9.1 U	18 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
WC-10-Cb3	19 U	19 U	37 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	28 U	9.2 U
WC-12-Cb3	19 U	19 U	**54**	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	9.2 U	18 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U	9.2 U
WC-15-CD	19 U	19 U	38 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	9.6 U	29 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
Commencement Bay																
SQO :	*230*	*720*	*17000*	*9*	*16*	*34*	*22*	*11*	-----	-----	-----	-----	-----	-----	-----	*300*

Notes:

metals - mg/kg, dry *U = nondetected at the associated value*

organics - µg/kg, dry *J = associated value is considered an estimate due to a variety of factors*

Shaded value exceeds SQO

TABLE 2 - Summary of Average Compliance Sediment Concentrations

Location	Lead							Mercury							Zinc						
	2004	2005	2006	2007	2008	2011	2014	2004	2005	2006	2007	2008	2011	2014	2004	2005	2006	2007	2008	2011	2014
Util. Work Area																					
WC-1	6	-----	86	86	89	41	115	<0.04	-----	0.1	0.1	0.16	<0.03	0.09	41.0	-----	269	-----	324	132	212
WC-2	15	54	92	92	112	127	116	<0.08	0.12	0.22	0.22	0.5	0.13	0.21	58	127	252	-----	348	402	428
WC-3	20	-----	37	37	28	52	19	0.07	-----	0.13	0.13	0.08	0.09	0.04	63	-----	99	-----	96	171	79
WC-4	13	50	54	54	48	99	77	<0.06	0.25	0.18	0.18	0.13	0.16	0.16	52.2	113	133	-----	152	308	237
WC-5	10	54	29	29	86	87	110	0.11	0.2	0.2	0.2	0.21	0.19	0.24	48	111	63	-----	255	282	347
WC-6	7	-----	28	28	50	97	111	<0.06	-----	0.08	0.08	0.12	0.24	0.20	38.8	-----	80.7	-----	145	282	315
WC-7	2	23	45	45	82	91	101	<0.04	0.07	0.11	0.11	0.13	0.16	0.17	30.7	62.2	112	-----	222	274	301
WC-8	4	-----	64	64	71	56	98	<0.05	-----	0.19	0.19	0.21	0.14	0.24	31.8	-----	134	-----	176	166	291
WC-9	7	-----	66	66	71	93	104	<0.05	-----	0.18	0.18	0.20	0.18	0.22	37.4	-----	130	-----	202	272	311
WC-10	4	-----	12	10	11	39	19	<0.06	-----	<0.05	<0.04	<0.05	0.08	0.04	34.5	-----	44.0	49	51	103	64
WC-11	14	212	11	12	60	77	117	0.05	0.7	<0.06	<0.05	1.65	0.20	0.27	60.5	257	44.2	53	165	193	317
WC-12	3	-----	10	18	36	102	70	<0.05	-----	<0.05	<0.05	0.11	0.23	0.20	35.9	-----	39.4	62	100	273	187
WC-13	4	-----	51	51	32	116	87	<0.05	-----	0.20	0.2	0.08	0.22	0.22	38.5	-----	116	-----	106	330	247
WC-14	4	-----	70	70	74	109	62	<0.05	-----	0.2	0.2	0.18	0.30	0.13	34.4	-----	160	-----	209	331	211
S-15	-----	162	15	10	23	-----	-----	-----	0.7	<0.05	<0.04	0.06	-----	-----	-----	200	58.8	55	77	-----	-----
S-17	-----	87	9	9	42	-----	-----	-----	0.29	<0.04	<0.04	0.08	-----	-----	-----	134	43.4	58	122	-----	-----
S-19	-----	-----	16	11	31	-----	-----	-----	-----	<0.05	<0.04	0.12	-----	-----	-----	-----	50.0	55	83	-----	-----
S-24	-----	59	11	11	40	-----	-----	-----	0.2	0.17	0.17	0.10	-----	-----	-----	105	40.3	69	115	-----	-----
Average	8	88	39	39	55	85	86	0.06	0.32	0.13	0.12	0.23	0.17	0.17	43	139	104	57	164	251	253

Location	Lead							Mercury							Zinc						
	2004	2005	2006	2007	2008	2011	2014	2004	2005	2006	2007	2008	2011	2014	2004	2005	2006	2007	2008	2011	2014
Turning Basin																					
WC-1	6	-----	86	86	89	41	115	<0.04	-----	0.1	0.1	0.16	<0.03	0.09	41.0	-----	269	-----	324	132	212
WC-2	15	54	92	92	112	127	116	<0.08	0.12	0.22	0.22	0.5	0.13	0.21	58	127	252	-----	348	402	428
WC-3	20	-----	37	37	28	52	19	0.07	-----	0.13	0.13	0.08	0.09	0.04	63	-----	99	-----	96	171	79
WC-4	13	50	54	54	48	99	77	<0.06	0.25	0.18	0.18	0.13	0.16	0.16	52.2	113	133	-----	152	308	237
WC-5	10	54	29	29	86	87	110	0.11	0.2	0.2	0.2	0.21	0.19	0.24	48	111	63	-----	255	282	347
WC-6	7	-----	28	28	50	97	111	<0.06	-----	0.08	0.08	0.12	0.24	0.20	38.8	-----	80.7	-----	145	282	315
WC-7	2	23	45	45	82	91	101	<0.04	0.07	0.11	0.11	0.13	0.16	0.17	30.7	62.2	112	-----	222	274	301
Average	10	45	53	53	71	85	93	0.07	0.16	0.15	0.15	0.19	0.14	0.16	47	103	144	-----	220	264	274

Notes: Metals in mg/kg
Organics in ug/kg

TABLE 2 - Summary of Average Compliance Sediment Concentrations

Location	LPAH								HPAH							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Util. Work Area																
WC-1	**85**	-----	**970**	**910**	**1408**	**1280**	**613**	**1234**	**1187**	-----	**10270**	**6500**	**11620**	**13010**	**4588**	**9190**
WC-2	**70**	**1183**	**2270**	**2700**	**2110**	**3262**	**2770**	**2605**	**724**	**7289**	**21481**	**20000**	**21790**	**29370**	**20,950**	**18,340**
WC-3	**204**	-----	**679**	**470**	**230**	**480**	**1658**	**253**	**535**	-----	**6160**	**4400**	**3091**	**6390**	**12,010**	**2082**
WC-4	**336**	**954**	**1490**	**750**	**740**	**1180**	**2320**	**1559**	**693**	**5250**	**11833**	**5300**	**6631**	**11130**	**19,180**	**11,180**
WC-5	**64**	**1514**	**2280**	**1200**	**1303**	**2013**	**2137**	**1533**	**219**	**6876**	**12900**	**9600**	**10918**	**16020**	**17,390**	**10,540**
WC-6	**33**	-----	**437**	**760**	**690**	**700**	**2177**	**1611**	**354**	-----	**4020**	**6500**	**7740**	**7750**	**17,160**	**11,310**
WC-7	<19	**498**	**564**	**1200**	**2017**	**1630**	**790**	**2065**	<19	**2623**	**4600**	**8700**	**12770**	**15660**	**6780**	**10,660**
WC-8	<19	-----	**1594**	**1100**	**1102**	**1314**	**778**	**2077**	**26**	-----	**9830**	**6000**	**6900**	**10040**	**5450**	**13,290**
WC-9	**57**	-----	**1570**	**930**	**780**	**2439**	**1138**	**1903**	**261**	-----	**8710**	**5300**	**6690**	**17520**	**8260**	**12,370**
WC-10	**88**	-----	**971**	**120**	**138**	**230**	**486**	**261**	**186**	-----	**1793**	**1100**	**1511**	**2870**	**3186**	**1407**
WC-11	**94**	**9200**	**91**	**92**	**604**	**399**	**951**	**2760**	**405**	**26920**	**1287**	**950**	**5950**	**4590**	**5690**	**11,980**
WC-12	<19	-----	**121**	**320**	**888**	**1460**	**1223**	**2510**	<19	-----	**1190**	**1700**	**5200**	**8540**	**5284**	**9440**
WC-13	**21**	-----	**1270**	**1500**	**523**	**1501**	**904**	**1558**	**159**	-----	**6710**	**8000**	**4572**	**14270**	**6950**	**9780**
WC-14	**20**	-----	**1408**	**820**	**670**	**1265**	**901**	**989**	**66**	-----	**9820**	**5200**	**6000**	**9580**	**7590**	**6827**
S-15	-----	**22160**	**120**	**120**	**180**	**110**	**520**	**295**	**-----**	**46310**	**1478**	**1000**	**2840**	**1190**	**3400**	**1960**
S-17	-----	**2540**	**71**	**160**	**512**	**1448**	**1800**	**1668**	**-----**	**10050**	**1011**	**1300**	**5320**	**12400**	**14000**	**9120**
S-19	-----	-----	**273**	**150**	**681**	**1999**	**1300**	**2057**	**-----**	-----	**1963**	**780**	**3409**	**10790**	**6400**	**6760**
S-24	-----	**1992**	**124**	**220**	**406**	**1120**	**680**	**511**	**-----**	**6678**	**1306**	**1800**	**4730**	**10160**	**4600**	**3590**
Average	**81**	**5005**	**906**	**751**	**832**	**1324**	**1286**	**1525**	**347**	**14000**	**6465**	**5229**	**7093**	**11182**	**9382**	**8879**

Location	LPAH								HPAH							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Turning Basin																
WC-1	**85**	-----	**970**	**910**	**1408**	**1280**	**613**	**1234**	**1187**	-----	**10270**	**6500**	**11620**	**13010**	**4588**	**9190**
WC-2	**70**	**1183**	**2270**	**2700**	**2110**	**3262**	**2770**	**2605**	**724**	**7289**	**21481**	**20000**	**21790**	**29370**	**20,950**	**18,340**
WC-3	**204**	-----	**679**	**470**	**230**	**480**	**1658**	**253**	**535**	-----	**6160**	**4400**	**3091**	**6390**	**12,010**	**2082**
WC-4	**336**	**954**	**1490**	**750**	**740**	**1180**	**2320**	**1559**	**693**	**5250**	**11833**	**5300**	**6631**	**11130**	**19,180**	**11,180**
WC-5	**64**	**1514**	**2280**	**1200**	**1303**	**2013**	**2137**	**1533**	**219**	**6876**	**12900**	**9600**	**10918**	**16020**	**17,390**	**10,540**
WC-6	**33**	-----	**437**	**760**	**690**	**700**	**2177**	**1611**	**354**	-----	**4020**	**6500**	**7740**	**7750**	**17,160**	**11,310**
WC-7	<19	**498**	**564**	**1200**	**2017**	**1630**	**790**	**2065**	<19	**2623**	**4600**	**8700**	**12770**	**15660**	**6780**	**10,660**
Average	**116**	**1037**	**1241**	**1141**	**1214**	**1506**	**1781**	**1551**	**533**	**5510**	**10181**	**8714**	**10651**	**14190**	**14008**	**10472**

Notes: Metals in mg/kg
Organics in ug/kg

TABLE 2 - Summary of Average Compliance Sediment Concentrations

Location	BEHP								PCBs						
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2011	2014
Util. Work Area															
WC-1	**550**	-----	**4300**	**2300**	**6400**	**3600**	**4200**	**2300**	nd	-----	**72**	-----	**120**	**41**	**165**
WC-2	**330**	**2700**	**7700**	**4900**	**8000**	**10000**	**7500**	**8200**	nd	**125**	**160**	-----	**138**	**249**	**183**
WC-3	**240**	-----	**2300**	**1800**	**1200**	**2400**	**3400**	**1100**	**5.7**	-----	**107**	-----	**51.2**	**69**	**41**
WC-4	**260**	**1700**	**4600**	**2300**	**2400**	**4000**	**6200**	**5200**	**5.4**	**89**	**86**	-----	**87**	**183**	**160**
WC-5	**76**	**2200**	**3600**	**4000**	**5400**	**7900**	**21,000**	**7400**	nd	**84**	**135**	-----	**106**	**159**	**192**
WC-6	**160**	-----	**1600**	**2800**	**3200**	**3600**	**6200**	**5600**	nd	-----	**44**	-----	**79**	**164**	**220**
WC-7	<19	**730**	**1800**	**3600**	**4700**	**7100**	**2600**	**5200**	nd	**20**	**88**	-----	**112**	**185**	**171**
WC-8	**49**	-----	**3400**	**2000**	**2500**	**4200**	**2100**	**6200**	nd	-----	**111**	-----	**118**	**164**	**170**
WC-9	**120**	-----	**4700**	**2200**	**3100**	**7300**	**3900**	**6400**	nd	-----	**136**	-----	**116**	**197**	**197**
WC-10	**63**	-----	**460**	**410**	**540**	**1000**	**1100**	**480**	nd	-----	**18**	<9.9	**12.2**	**66**	**35**
WC-11	**220**	**3500**	**960**	**640**	**3500**	**3500**	**3600**	**6500**	nd	**267**	**9.7 U**	<9.7	**68**	**136**	**239**
WC-12	<19	-----	**590**	**640**	**1600**	**2800**	**1800**	**3400**	nd	-----	**12**	<9.9	**40.2**	**112**	**149**
WC-13	**100**	-----	**2000**	**2700**	**2100**	**5700**	**2600**	**4700**	nd	-----	**131**	-----	**43.4**	**183**	**150**
WC-14	**76**	-----	**3700**	**2100**	**3500**	**4400**	**3500**	**4300**	nd	-----	**187**	-----	**124**	**156**	**138**
S-15	-----	**3000**	**930**	**500**	**1600**	**700**	**2100**	**1400**	-----	**458**	**23**	<9.7	**18.1**	**-----**	**-----**
S-17	-----	**2000**	**570**	**620**	**2400**	**7000**	**6000**	**5200**	-----	**59**	**9.9 U**	<10.0	**36.6**	**-----**	**-----**
S-19	-----	-----	**880**	**300**	**1200**	**3600**	**2300**	**3500**	-----	-----	**23**	<9.8	**34.8**	**-----**	**-----**
S-24	-----	**2000**	**550**	**790**	**1800**	**4100**	**1400**	**2600**	-----	**132**	**9.9 U**	**18**	**25**	**-----**	**-----**
Average	**163**	**2229**	**2480**	**1922**	**3063**	**4606**	**4528**	**4427**	**5.6**	**154**	**89**	**11**	**74**	**147**	**158**

Location	BEHP								PCBs						
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2011	2014
Turning Basin															
WC-1	**550**	-----	**4300**	**2300**	**6400**	**3600**	**4200**	**2300**	nd	-----	**72**	-----	**120**	**41**	**165**
WC-2	**330**	**2700**	**7700**	**4900**	**8000**	**10000**	**7500**	**8200**	nd	**125**	**160**	-----	**138**	**249**	**183**
WC-3	**240**	-----	**2300**	**1800**	**1200**	**2400**	**3400**	**1100**	**5.7**	-----	**107**	-----	**51.2**	**69**	**41**
WC-4	**260**	**1700**	**4600**	**2300**	**2400**	**4000**	**6200**	**5200**	**5.4**	**89**	**86**	-----	**87**	**183**	**160**
WC-5	**76**	**2200**	**3600**	**4000**	**5400**	**7900**	**21,000**	**7400**	nd	**84**	**135**	-----	**106**	**159**	**192**
WC-6	**160**	-----	**1600**	**2800**	**3200**	**3600**	**6200**	**5600**	nd	-----	**44**	-----	**79**	**164**	**220**
WC-7	<19	**730**	**1800**	**3600**	**4700**	**7100**	**2600**	**5200**	nd	**20**	**88**	-----	**112**	**185**	**171**
Average	**234**	**1833**	**3700**	**3100**	**4471**	**5514**	**7300**	**5000**	**6**	**80**	**99**	**-----**	**99**	**150**	**162**

Notes: Metals in mg/kg
Organics in ug/kg

TABLE 3 - Accumulated Layer Thicknesses and "Fines" Contents of Samples

Location	Apr-04			Nov./Dec-04			May -05		
	Thickness (cm)	Sample Thickness (cm)(a)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)(a)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)
Early Warning Samples									
RC-1	(c)	2	12	1	2	6.3	1.5	2	30
RC-1B	-----	-----	-----	-----	-----	----	-----	-----	----
RC-2	(c)	2	36	8	8	44	9	2	51
RC-3	(c)	2	73	12	12	54	10	2	39
RC-4	(c)	2	34	9	9	46	13	2	68
RC-5	(c)	2	54	11	11	58	10	2	60
RC-6	(c)	2	26	5	5	53	4.5	2	55
RC-7	(c)	2	6.2	4	4	33	3	2	26
RC-8	(c)	2	5.2	5	5	47	4	2	62
RC-9	(c)	2	25	6	6	40	5.5	2	64
RC-10	(c)	2	20	3	3	52	5	2	65
RC-11	(c)	2	24	7	-----	-----	10.5	2	79
RC-12	(c)	2	1.9	3	3	67	5	2	72
RC-13	(c)	2	18	1	2	6.3	1	2	15
RC-14	(c)	2	34	1	2	13	1.5	2	20
RC-14B	-----	-----	-----	-----	-----	-----	1.5	2	18
S-16	-----	-----	-----	5	5	62	5	-----	-----
S-17	-----	-----	-----	2	2	48	6	-----	-----
S-18	-----	-----	-----	7	7	40	3	-----	-----
S-19	-----	-----	-----	4	4	60	8	-----	-----
S-20	-----	-----	-----	2	2	21	3.5	-----	-----
S-21	-----	-----	-----	7	7	69	-----	-----	-----
S-22	-----	-----	-----	8	8	48	6.5	-----	-----
S-23	-----	-----	-----	3	3	39	-----	-----	-----
S-24	-----	-----	-----	2	3	43	6	-----	-----
Compliance Samples									
WC-1	(c)	10	7.8	1	10	7.2	1.5	10	-----
WC-1B	-----	-----	-----	-----	-----	-----	-----	-----	-----
WC-2	(c)	10	24	8	10	-----	9	10	37
WC-3	(c)	10	43	12	10	-----	10	10	-----
WC-4	(c)	10	16	9	10	37	13	10	37
WC-5	(c)	10	31	11	10	61	10	10	48
WC-6	(c)	10	11	5	-----	-----	4.5	10	-----

TABLE 3 - Accumulated Layer Thicknesses and "Fines" Contents of Samples

Location	Apr-04			Nov./Dec-04			May -05		
	Thickness (cm)	Sample Thickness (cm)(a)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)(a)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)
WC-7	(c)	10	2.5	4	10	17	3	10	7.2
WC-8	(c)	10	3.3	5	-----	-----	4	10	-----
WC-9	(c)	10	11	6	10	31	5.5	10	-----
WC-10	(c)	10	7.1	3	10	15	5	10	-----
WC-11	(c)	10	13	7	10	33	10.5	10	77
WC-12	(c)	10	2	3	10	25	5	10	-----
WC-13	(c)	10	5.7	-----	-----	-----	-----	-----	-----
WC-14	(c)	10	9.0	-----	-----	-----	-----	-----	-----
S-15	-----	-----	-----	12	10	52	11.5	10	58
S-16	-----	-----	-----	5	10	28	5	10	-----
S-17	-----	-----	-----	2	10	-----	6	10	43
S-18	-----	-----	-----	7	10	-----	3	10	-----
S-19	-----	-----	-----	4	10	25	8	10	-----
S-20	-----	-----	-----	2	10	-----	3.5	10	-----
S-21	-----	-----	-----	7	10	-----	-----	-----	-----
S-22	-----	-----	-----	8	10	-----	6.5	10	-----
S-23	-----	-----	-----	3	-----	-----	-----	-----	-----
S-24	-----	-----	-----	2	10	-----	6	10	25
S-25	-----	-----	-----	7	-----	-----	-----	-----	-----
S-26	-----	-----	-----	2	-----	-----	-----	-----	-----
S-27	-----	-----	-----	5	-----	-----	-----	-----	-----
S-28	-----	-----	-----	2	-----	-----	-----	-----	-----
S-29	-----	-----	-----	4	10	-----	5	10	-----
S-30	-----	-----	-----	1	-----	-----	3	10	-----

Notes: (a) - In Nov./Dec. 2004, "RC" designated samples consisted of the full thickness of the fine grained sediment that had accumulated on the Utilities' Cap, except where accumulations were less than 2 cm. Where less than 2 cm of fine grained sediment was present, a 0 to 2 cm thick sample was obtained that also included some of the underlying capping material.

(b) - Based on grain size analysis (GS), less than 62.5 micron (um) in size

(c) - A variable thickness of a fine sandy silt material was observed to have accumulated since the final capping material was placed. This fine-grained material ranged from a thin coating up to approximately 1 cm thick and comprised a larger percentage of the 0 to 2 cm samples as compared to the 0 to 10 cm samples.

TABLE 3 - Accumulated Layer Thicknesses and "Fines" Contents of Samples

Location	May -06			May -07			May -08		
	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)
Early Warning Samples									
RC-1	-----	2	27	-----	2	24	na	2	35
RC-1B	19	-----	-----	-----	-----	-----	-----	-----	-----
RC-2	16	2	52	13+	2	36	12	2	54
RC-3	11	2	46	15+	2	32	13	2	33
RC-4	9 to 17	2	46	17+	2	53	12	2	42
RC-5	12	2	51	15	2	51	13	2	56
RC-6	1 to 10	2	30	12	2	45	16	2	57
RC-7	6	2	41	12+	2	34	18	2	41
RC-8	7	2	47	7	2	42	8	2	41
RC-9	7	2	58	9	2	49	13	2	51
RC-10	0.5	2	7.5	1	2	19	1	2	19
RC-11	1	2	8.7	3	2	50	7	2	77
RC-12	1	2	11	3	2	25	4	2	50
RC-13	2	2	36	-----	2	40	2	2	25
RC-14	2	2	23	-----	2	24	8	2	46
RC-14B	1	2	25	-----	-----	-----	-----	-----	-----
S-16	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-17	0.5	-----	-----	2	-----	-----	4	-----	-----
S-18	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-19	2	-----	-----	4	-----	-----	3	-----	-----
S-20	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-21	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-22	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-23	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-24	0.5	-----	-----	1	-----	-----	2	-----	-----
Compliance Samples									
WC-1	-----	10	35	-----	-----	-----	-----	10	41
WC-1B	19	-----	-----	-----	-----	-----	-----	-----	-----
WC-2	16	10	57	13+	-----	-----	12	10	50
WC-3	11	10	40	15+	-----	-----	13	10	24
WC-4	9 to 17	10	36	17+	-----	-----	12	10	37
WC-5	12	10	51	15	-----	-----	13	10	55
WC-6	1 to 10	10	26	12	-----	-----	16	10	39

TABLE 3 - Accumulated Layer Thicknesses and "Fines" Contents of Samples

Location	May -06			May -07			May -08		
	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)
WC-7	6	10	21	11+	-----	-----	18	10	43
WC-8	7	10	38	7	-----	-----	8	10	41
WC-9	7	10	40	9	-----	-----	13	10	43
WC-10	0.5	10	4.7	1	-----	-----	1	10	5.3
WC-11	1	10	8.1	3	-----	-----	7	10	35
WC-12	1	10	5	3	-----	-----	4	10	23
WC-13	7	10	35	8	-----	-----	3	10	17
WC-14	7	10	52	13+	-----	-----	18	10	47
S-15	2	10	9.3	3	10	-----	4	10	15
S-16	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-17	0.5	10	5.5	2	10	-----	4	10	19
S-18	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-19	2	10	10	4	10	-----	3	10	16
S-20	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-21	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-22	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-23	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-24	0.5	10	4.2	1	10		2	10	16
S-25	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-26	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-27	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-28	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-29	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-30	-----	-----	-----	-----	-----	-----	-----	-----	-----

Notes: (a) - In Nov./Dec. 2004, "RC" designated samples consisted of the full thickness of the fine grained sediment that had accumulated on the Utilities' Cap, except where accumulations were less than 2 cm. Where less than 2 cm of fine grained sediment was present, a 0 to 2 cm thick sample was obtained that also included some of the underlying capping material.

(b) - Based on grain size analysis (GS), less than 62.5 micron (um) in size

(c) - A variable thickness of a fine sandy silt material was observed to have accumulated since the final capping material was placed. This fine-grained material ranged from a thin coating up to approximately 1 cm thick and comprised a larger percentage of the 0 to 2 cm samples as compared to the 0 to 10 cm samples.

TABLE 3 - Accumulated Layer Thicknesses and "Fines" Contents of Samples

Location	May -09			Apr-11			Apr-14		
	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)
Early Warning Samples									
RC-1	3	2	48	2	2	16.7	10+	2	34.2
RC-1B	-----	-----		-----	-----	-----	-----	-----	-----
RC-2	23+	2	59	36+	2	45.8	26+	-----	-----
RC-3	16	2	46	30+	2	41.4	15.5	2	21.8
RC-4	21	2	55	32+	2	44.7	25+	-----	-----
RC-5	21+	2	62	31+	2	54.9	25+	2	67.0
RC-6	20+	2	61	26+	2	59.8	18	2	74.2
RC-7	20	2	71	22+	2	61.8	23	2	50.5
RC-8	18	2	57	9	2	64.1	13.5	2	56.8
RC-9	10	2	67	17	2	63.9	21	2	59.7
RC-10	3	2	24	7	2	33.4	3	2	17.1
RC-11	10	2	77	6	2	74.0	15	2	65.3
RC-12	9	2	38	6	2	55.2	11	2	61.2
RC-13	10	2	64	2	2	42.9	2	2	46.5
RC-14	7	2	56	2	2	36.1	2	2	33.6
RC-14B	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-16	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-17	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-18	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-19	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-20	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-21	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-22	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-23	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-24	-----	-----	-----	-----	-----	-----	-----	-----	-----
Compliance Samples									
WC-1	3	10	-----	2	10	4.2	10+	10	30.6
WC-1B	-----	-----	-----	-----	-----	-----	-----	-----	-----
WC-2	23+	10	-----	36+	10	43.3	26+	-----	-----
WC-3	16	10	-----	30+	10	37.4	15.5	10	11.4
WC-4	21	10	-----	32+	10	57.2	25+	-----	-----
WC-5	21+	10	-----	31+	10	56.2	25+	10	63.5
WC-6	20+	10	-----	26+	10	55.3	18	10	70.2

TABLE 3 - Accumulated Layer Thicknesses and "Fines" Contents of Samples

Location	May -09			Apr-11			Apr-14		
	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)	Thickness (cm)	Sample Thickness (cm)	% Fines (GS)(b)
WC-7	20	10	-----	22+	10	51.8	23	10	49.3
WC-8	18	10	-----	9	10	38.5	13.5	10	55.8
WC-9	10	10	-----	17	10	55.4	21	10	65.0
WC-10	3	10	-----	7	10	25.3	3	10	9.0
WC-11	10	10	-----	6	10	59.5	15	10	74.2
WC-12	9	10	-----	6	10	40.7	11	10	49.0
WC-13	7	10	-----	18	10	65.2	13	10	53.3
WC-14	11	10	-----	14	10	57.6	15+	10	38.1
S-15	4	10	-----	2	10	-----	1	10	-----
S-16	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-17	14	10	-----	10	10	-----	12	10	-----
S-18	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-19	8	10	-----	3	10	-----	9	10	-----
S-20	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-21	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-22	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-23	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-24	7	10	-----	2	10	-----	1	10	-----
S-25	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-26	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-27	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-28	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-29	-----	-----	-----	-----	-----	-----	-----	-----	-----
S-30	-----	-----	-----	-----	-----	-----	-----	-----	-----

Notes: (a) - In Nov./Dec. 2004, "RC" designated samples consisted of the full thickness of the fine grained sediment that had accumulated on the Utilities' Cap, except where accumulations were less than 2 cm. Where less than 2 cm of fine grained sediment was present, a 0 to 2 cm thick sample was obtained that also included some of the underlying capping material.

(b) - Based on grain size analysis (GS), less than 62.5 micron (um) in size

(c) - A variable thickness of a fine sandy silt material was observed to have accumulated since the final capping material was placed. This fine-grained material ranged from a thin coating up to approximately 1 cm thick and comprised a larger percentage of the 0 to 2 cm samples as compared to the 0 to 10 cm samples.

TABLE 4 - Summary of Average Early Warning Sediment Concentrations

Head Thea Foss Waterway
Tacoma, Washington

Location	Lead								Mercury								Zinc							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Util. Work Area																								
RC-1	25	104	90	111	94	206	77	92	<0.06	0.2	0.1	0.3	0.1	0.19	0.07	0.11	74	289	287	380	308	448	266	275
RC-2	20	122	97	114	134	125	120	130	<0.10	0.3	0.2	0.2	0.2	0.16	0.14	0.17	71	261	254	539	452	473	368	470
RC-3	44	55	62	36	33	58	66	28	0.1	0.21	0.16	0.1	0.09	0.1	0.11	0.06	115	123	166	113	108	190	203	104
RC-4	19	140	44	77	54	85	70	107	0.08	0.5	0.2	0.32	0.12	0.12	0.10	0.20	70	254	108	227	161	257	234	342
RC-5	19	108	76	78	78	79	103	111	0.09	0.3	0.19	0.2	0.24	0.14	0.20	0.20	70	187	189	220	242	268	337	375
RC-6	18	114	47	86	93	90	108	117	<0.08	0.3	0.11	0.18	0.2	0.18	0.16	0.21	56	216	121	227	265	266	322	358
RC-7	6	70	70	64	91	139	130	101	<0.05	0.22	0.15	0.15	0.16	0.16	0.24	0.18	41	141	169	173	256	371	379	353
RC-8	5	145	73	70	73	88	112	99	<0.06	0.5	0.22	0.18	0.16	0.19	0.20	0.18	33	215	150	184	208	266	315	288
RC-9	15	144	76	86	99	92	104	101	<0.07	0.5	0.28	0.2	0.2	0.19	0.20	0.18	53.3	211	158	221	275	286	303	293
RC-10	11	159	15	33	33	39	49	28	<0.06	0.6	<0.04	0.08	0.08	0.09	0.25	0.08	44	203	52	102	99	124	136	87
RC-11	35	178	13	73	106	118	123	124	0.13	0.84	<0.06	0.19	0.29	0.21	0.23	0.47	83	231	56.9	195	273	353	325	332
RC-12	4	186	19	39	62	61	90	87	<0.05	0.8	<0.05	0.14	0.17	0.14	0.21	0.22	44	217	59.9	109	157	181	222	217
RC-13	42	38	73	113	82	112	124	103	0.07	0.08	0.12	0.2	0.11	0.16	0.15	0.20	99	118	208	109	224	342	361	320
RC-14	54	58	67	70	111	92	109	76	0.1	0.13	0.13	0.1	0.2	0.2	0.24	0.20	167	203	219	256	375	325	365	283
Average	**23**	**116**	**59**	**75**	**82**	**99**	**99**	**93**	**0.08**	**0.39**	**0.14**	**0.18**	**0.17**	**0.16**	**0.18**	**0.19**	**73**	**205**	**157**	**218**	**243**	**296**	**295**	**293**

Location	Lead								Mercury								Zinc							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Turning Basin																								
RC-1	25	104	90	111	94	206	77	92	<0.06	0.2	0.1	0.3	0.1	0.19	0.07	0.11	74	289	287	380	308	448	266	275
RC-2	20	122	97	114	134	125	120	130	<0.10	0.3	0.2	0.2	0.2	0.16	0.14	0.17	71	261	254	539	452	473	368	470
RC-3	44	55	62	36	33	58	66	28	0.1	0.21	0.16	0.1	0.09	0.1	0.11	0.06	115	123	166	113	108	190	203	104
RC-4	19	140	44	77	54	85	70	107	0.08	0.5	0.2	0.32	0.12	0.12	0.10	0.20	70	254	108	227	161	257	234	342
RC-5	19	108	76	78	78	79	103	111	0.09	0.3	0.19	0.2	0.24	0.14	0.20	0.20	70	187	189	220	242	268	337	375
RC-6	18	114	47	86	93	90	108	117	<0.08	0.3	0.11	0.18	0.2	0.18	0.16	0.21	56	216	121	227	265	266	322	358
RC-7	6	70	70	64	91	139	130	101	<0.05	0.22	0.15	0.15	0.16	0.16	0.24	0.18	41	141	169	173	256	371	379	353
Average	**22**	**102**	**69**	**81**	**82**	**112**	**96**	**98**	**<0.08**	**0.29**	**0.16**	**0.21**	**0.16**	**0.15**	**0.15**	**0.16**	**71**	**210**	**185**	**268**	**256**	**325**	**301**	**325**

Notes: metals in mg/kg
organics in ug/kg

TABLE 4 - Summary of Average Early Warning Sediment Concentrations

Head Thea Foss Waterway
Tacoma, Washington

Location	LPAH								HPAH								BEHP							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Util. Work Area																								
RC-1	160	2340	1930	2010	1970	3300	2150	1244	2667	18570	17890	12143	16850	19000	13,740	8617	1300	8200	8300	14000	6000	6,600	8300	5600
RC-2	197	2844	2550	3350	1750	1900	1632	1960	1033	17390	21710	26160	17630	11610	12,380	12,160	470	7300	8700	9500	8200	5600	8900	8300
RC-3	586	1740	1180	830	750	1100	1677	393	2279	8603	12190	7121	6350	6820	14,290	3214	1100	3200	5100	2600	2100	2700	5500	1700
RC-4	191	4730	2050	1374	759	1900	2349	1755	868	19830	15680	11152	6674	11920	18,120	12,800	360	6700	5900	5100	2800	4900	5500	5600
RC-5	74	5110	910	930	1504	1600	2474	1584	259	19780	10290	8483	12333	9740	18,820	11,200	110	5600	5400	4000	6900	5500	8200	7400
RC-6	164	3070	740	1371	1471	1600	2575	1735	1050	13610	8280	11734	13860	9760	20,230	12,240	500	4400	3900	5600	6000	5400	7900	6100
RC-7	26	2382	1350	1083	1412	2100	851	1501	270	9818	11160	8297	11880	11510	6600	9520	180	4400	5400	3700	5200	4900	3300	6900
RC-8	28	4640	1974	1451	1159	1500	1478	1298	213	17310	13800	10820	11058	9620	10,890	8650	110	3500	5400	4300	4500	3800	5000	3800
RC-9	130	5030	1790	1200	1330	1400	1334	1400	577	20490	13220	10970	11034	9310	9300	9460	230	3500	4700	6200	5100	5100	4900	5700
RC-10	159	9570	79	414	460	810	824	317	392	25330	917	3825	6880	4373	5164	2026	80	3600	420	1600	2500	1400	1800	880
RC-11	338	9860	110	1012	2540	1200	1402	2110	881	25090	1471	8349	18500	9110	8340	11,000	280	3500	1100	6100	10000	5400	5500	6600
RC-12	<20	18510	396	904	2069	1100	2052	2540	22	39650	2906	5438	11320	5780	9100	10,840	60	3800	1300	2200	3600	2600	3400	4000
RC-13	303	686	1130	3700	2242	3600	1984	1791	4180	5760	12940	30440	19200	23620	14,080	13,520	1400	2100	3700	7300	6600	6500	3800	4700
RC-14	658	996	830	2140	1960	1900	2715	1473	7360	8686	8890	15730	18520	12020	18,920	11,290	3000	3600	3600	4200	8000	5300	6100	5300
Average	**217**	**5108**	**1216**	**1555**	**1527**	**1786**	**1821**	**1507**	**1575**	**17851**	**10810**	**12190**	**13006**	**11014**	**12855**	**9753**	**656**	**4529**	**4494**	**5457**	**5536**	**4693**	**5579**	**5184**

Location	LPAH								HPAH								BEHP							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Turning Basin																								
RC-1	160	2340	1930	2010	1970	3300	2150	1244	2667	18570	17890	12143	16850	19000	13,740	8617	1300	8200	8300	14000	6000	6,600	8300	5600
RC-2	197	2844	2550	3350	1750	1900	1632	1960	1033	17390	21710	26160	17630	11610	12,380	12,160	470	7300	8700	9500	8200	5600	8900	8300
RC-3	586	1740	1180	830	750	1100	1677	393	2279	8603	12190	7121	6350	6820	14,290	3214	1100	3200	5100	2600	2100	2700	5500	1700
RC-4	191	4730	2050	1374	759	1900	2349	1755	868	19830	15680	11152	6674	11920	18,120	12,800	360	6700	5900	5100	2800	4900	5500	5600
RC-5	74	5110	910	930	1504	1600	2474	1584	259	19780	10290	8483	12333	9740	18,820	11,200	110	5600	5400	4000	6900	5500	8200	7400
RC-6	164	3070	740	1371	1471	1600	2575	1735	1050	13610	8280	11734	13860	9760	20,230	12,240	500	4400	3900	5600	6000	5400	7900	6100
RC-7	26	2382	1350	1083	1412	2100	851	1501	270	9818	11160	8297	11880	11510	6600	9520	180	4400	5400	3700	5200	4900	3300	6900
Average	**200**	**3174**	**1530**	**1564**	**1374**	**1929**	**1958**	**1453**	**1204**	**15372**	**13886**	**12156**	**12225**	**11480**	**14883**	**9964**	**574**	**5686**	**6100**	**6357**	**5314**	**5086**	**6800**	**5943**

Notes: metals in mg/kg
organics in ug/kg

TABLE 4 - Summary of Average Early Warning Sediment Concentrations

Location	PCBs								Lube							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Util. Work Area																
RC-1	5.7	200	95	172	106	167	87	155	-----	4800	4700	3400	5000	7400	2800	3300
RC-2	6.3	300	169	133	135	178	198	240	-----	5900	5300	5600	4200	7100	6400	6700
RC-3	7.2	178	134	64	63.8	112	124	78	-----	1600	2300	1500	1200	3100	2400	1200
RC-4	5.7	172	108	140	97	155	132	182	-----	3500	3000	3300	2200	4100	3800	4800
RC-5	4.3	273	142	143	112	69	181	203	-----	3000	3200	3300	3200	6100	3800	5900
RC-6	9.2	192	113	126	97	151	190	240	-----	1800	1700	2900	2800	4600	3700	4200
RC-7	nd	120	97	105	115	163	226	168	-----	2100	2700	2200	3100	6700	4100	3900
RC-8	nd	188	112	136	105	107	250	174	-----	3200	2200	3100	2100	4100	4800	3900
RC-9	6.5	219	226	122	140	137	238	189	-----	3700	2800	3600	3100	4600	3600	4400
RC-10	nd	272	28	40	38.3	55	98	51	-----	3800	510	1000	1400	1600	1200	820
RC-11	11	381	9.8	138	130	135	254	198	-----	5700	660	3000	4600	7900	3500	4600
RC-12	nd	275	43	72	66	84	141	183	-----	4400	720	1300	2200	2300	1900	2400
RC-13	nd	80	98	192	94	140	229	240	-----	910	2800	3800	3100	4900	1100	3700
RC-14	nd	110	62	122	127	94	225	137	-----	1800	2300	2200	5500	4200	1100	3800
Average	**7**	**211**	**103**	**122**	**102**	**125**	**184**	**174**	**-----**	**3301**	**2492**	**2871**	**3121**	**4907**	**3157**	**3830**

Location	PCBs								Lube							
	2004	2005	2006	2007	2008	2009	2011	2014	2004	2005	2006	2007	2008	2009	2011	2014
Turning Basin																
RC-1	5.7	200	95	172	106	167	87	155	-----	4800	4700	3400	5000	7400	2800	3300
RC-2	6.3	300	169	133	135	178	198	240	-----	5900	5300	5600	4200	7100	6400	6700
RC-3	7.2	178	134	64	63.8	112	124	78	-----	1600	2300	1500	1200	3100	2400	1200
RC-4	5.7	172	108	140	97	155	132	182	-----	3500	3000	3300	2200	4100	3800	4800
RC-5	4.3	273	142	143	112	69	181	203	-----	3000	3200	3300	3200	6100	3800	5900
RC-6	9.2	192	113	126	97	151	190	240	-----	1800	1700	2900	2800	4600	3700	4200
RC-7	nd	120	97	105	115	163	226	168	-----	2100	2700	2200	3100	6700	4100	3900
Average	**6**	**205**	**123**	**126**	**104**	**142**	**163**	**181**	**-----**	**3243**	**3271**	**3171**	**3100**	**5586**	**3857**	**4286**

Notes: metals in mg/kg
organics in ug/kg

TABLE 5 - Sediment Trap Concentrations - 2002 to 2013

	Lead	Mercury	Zinc	Diesel	Heavy Oil	LPAH	HPAH	BEHP	4,4'-DDD	4,4'-DDE	4,4'-DDT	T-PCBs
Units	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**
SQO	450	0.59	410	None	None	5200	17000	1300	16	9	34	300
237A-FD2												
3/26/2002	78.9	0.04	220 J	160	2100	2263	17850	4600	6.3 U	6.3 U	8.5	84
4/28/2003	114 J	0.11 J	365 J	130	3700	5920	40020	22000	4 UJ	4 U	28.6 J	62
4/8/2004	114	0.07 J	307	97	2000	5840	35220	11000	8 UJ	8 UJ	11 J	110
4/19/2005	74.5	0.06 J	290	72	2400	5750	36000	14000	9.5 U	9.5 U	9.5 U	101
4/6/2006	81.5	0.05	267	69	2600	4080	28530	8800	3.3 U	3.3 U	3.3 U	197
4/20/2007	50.9 J	0.029 J	278 J	110	1400	3999	35200	3800	10 U	10 U	10 U	20 U
4/3/2008	93.7 J	0.089 J	344 J	780	3300	4020	25190	16000	8 U	8 U	8 U	80 U
5/4/2009	80.8	0.07	308	88	2900	418	3716	1300	6 U	3 U	9 U	37 U
8/23/2010	71.3	0.046 J	322	130	2300	3370	31890	9300	7 U	8 U	7 U	9 U
8/20/2013	52.5	0.061	229	140	2700	1323	5372	6900	8 U	6 U	7 U	63 U
Mean	**81.2**	**0.062**	**293**	**178**	**2540**	**3698**	**25899**	**9770**	**-----**	**-----**	**-----**	**-----**
Median	**79.9**	**0.058**	**299**	**120**	**2500**	**4010**	**30210**	**9050**	**-----**	**-----**	**-----**	**-----**
237B-FD1												
3/26/2002	56.7	0.05	185 J	37 J	1400	823	4193	3000	1.4 B	1.3 B	4.2 B	30
4/28/2003	129 J	0.16 J	277 J	72	3000	4509	28310	17000	4 UJ	4 U	12.9 J	8 U
4/8/2004	72.3	0.10 J	233	60	1800	3349	20100	8500	8 UJ	8 UJ	9.3 J	75 U
4/19/2005	35.7	0.04 UJ	123	25 U	750	1960	6090	3600	8.2 U	8.2 U	8.2 U	35
4/6/2006	50.8	0.04 J	211	25 U	1400	860	8160	5100	3.2 UJ	3.2 UJ	3.2 UJ	88 B
4/20/2007	66.1 J	0.034 J	198 J	52	1700	2109	17280	3900	9.8 U	9.8 U	9.8 U	20 U
4/3/2008	78.1	0.06	218	780	2600	3290	16460	5900	8 U	8 U	8 U	80 U
5/4/2009	38.1 J	0.05	183	39	1700	1359	12260	6000	6 U	3 U	9 U	29 U
8/23/2010	39.5	0.038 J	172	41	910	906	10930	2000	4 U	4 U	4 U	4 U
8/20/2013	45.9	0.045	199	48	890	802	4454	4160	8 U	6 U	6 U	12 U
Mean	61.2	0.061	200	118	1615	1997	12824	5916	-----	-----	-----	-----
Median	53.8	0.048	199	45	1550	1660	11595	4630	-----	-----	-----	-----

TABLE 5 - Sediment Trap Concentrations - 2002 to 2013

	Lead	Mercury	Zinc	Diesel	Heavy Oil	LPAH	HPAH	BEHP	4,4'-DDD	4,4'-DDE	4,4'-DDT	T-PCBs
Units	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(mg/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**	**(ug/kg)**
SQO	450	0.59	410	None	None	5200	17000	1300	16	9	34	300
235-FD6												
3/26/2002	144	0.08	348	110	3100	1158	6550	9700	5.8 U	5.8 U	14	79
4/28/2003	202	0.08	332	130 UJ	2300	2200	11030	22000	6.3 UJ	6.3 U	6.3 U	40.6
4/8/2004	96.4	0.06 J	296	92	1700	1322	5588	10000	7.9 UJ	7.9 UJ	7.9 UJ	65 U
4/19/2005	94.9	0.05 J	219	86	1600	1400	4680	15000	10 U	10 U	10 U	23
5/5/2006	183	0.05 J	323	99	3300	3650	14070	1600	3.2 UJ	3.2 UJ	3.2 UJ	79 B
4/20/2007	99.2	0.06	288	270	2300	1120	4930	7700	10 U	10 U	10 U	20 U
4/3/2008	134	1.35	396	1000	4500	1070	6690	18000	8 U	8 U	8 U	80 U
5/4/2009	88.2 J	0.085	307	75	2600	2470	13275	17000	6 U	3 U	9 U	37 U
8/24/2010	140	0.061	377	150	2100	1679	9760	13000	7 U	8 U	7 U	6 U
8/23/2013	158	0.062	345	140	2600	820	5725	15800	8 U	6 U	7 U	53
Mean	134	0.194	323	215	2610	1689	8230	12980	-----	-----	-----	-----
Median	137	0.062	328	120	2450	1361	6620	14000	-----	-----	-----	-----
243-FD23												
3/26/2002	388	0.60	742	670	3800	1529	7440	16000	-----	-----	-----	-----
4/28/2003	-----	-----	-----	190	7200	4830	15720	41000	34 U	34 U	34 U	220
4/8/2004	430	0.97 J	649	220	4700	2037	10020	18000	8 UJ	8 UJ	9.6 J	206
4/19/2005	-----	-----	-----	240	6600	3140	8500	37000	-----	-----	-----	-----
4/6/2006	620	0.96	790	210	6100	2390	11900	29000	12 UJ	12 UJ	12 UJ	160 U
4/20/2007	-----	0.27	-----	110	1700	1230	7950	3600	25	84	10 U	150
4/3/2008	450	0.309	440	-----	-----	-----	-----	-----	-----	-----	-----	-----
5/8/2009	-----	-----	-----	100	4100	1242	18206	14000	6 U	3 U	9 U	30 U
8/24/2010	821	0.469 J	936	240	4700	1476	10070	16000	7 U	8 U	7 U	9 U
8/20/2013	711	0.458	895	180	4100	1562	14458	14900	9 U	6 U	7 U	-----
Mean	570	0.595	742	240	4778	2160	11585	21056	-----	-----	-----	-----
Median	450	0.532	742	215	4700	1783	10045	17000	-----	-----	-----	-----

Notes: Sources - Table D-15 in Stormwater Source Control and Water Year 2010 Stormwater Monitoring Report, Wheeler-Osgood Waterways, Prepared by City of Tacoma, March 2011; and Table D-8 2013 Source Control and WaterYear 2013 Stormwater Monitoring Report, March 2014.

U - Not detected at indicated value

J - Estimated concentration

B - Analyte detected in laboratory blank

----- - Not reported

SQO - Commencement Bay Sediment Quality Objective

TABLE 6 - Comparison of Sediment Trap and Turning Basin Sediment Concentrations

Table 6a - Comparison of Sediment Trap and Turning Basin Sediment

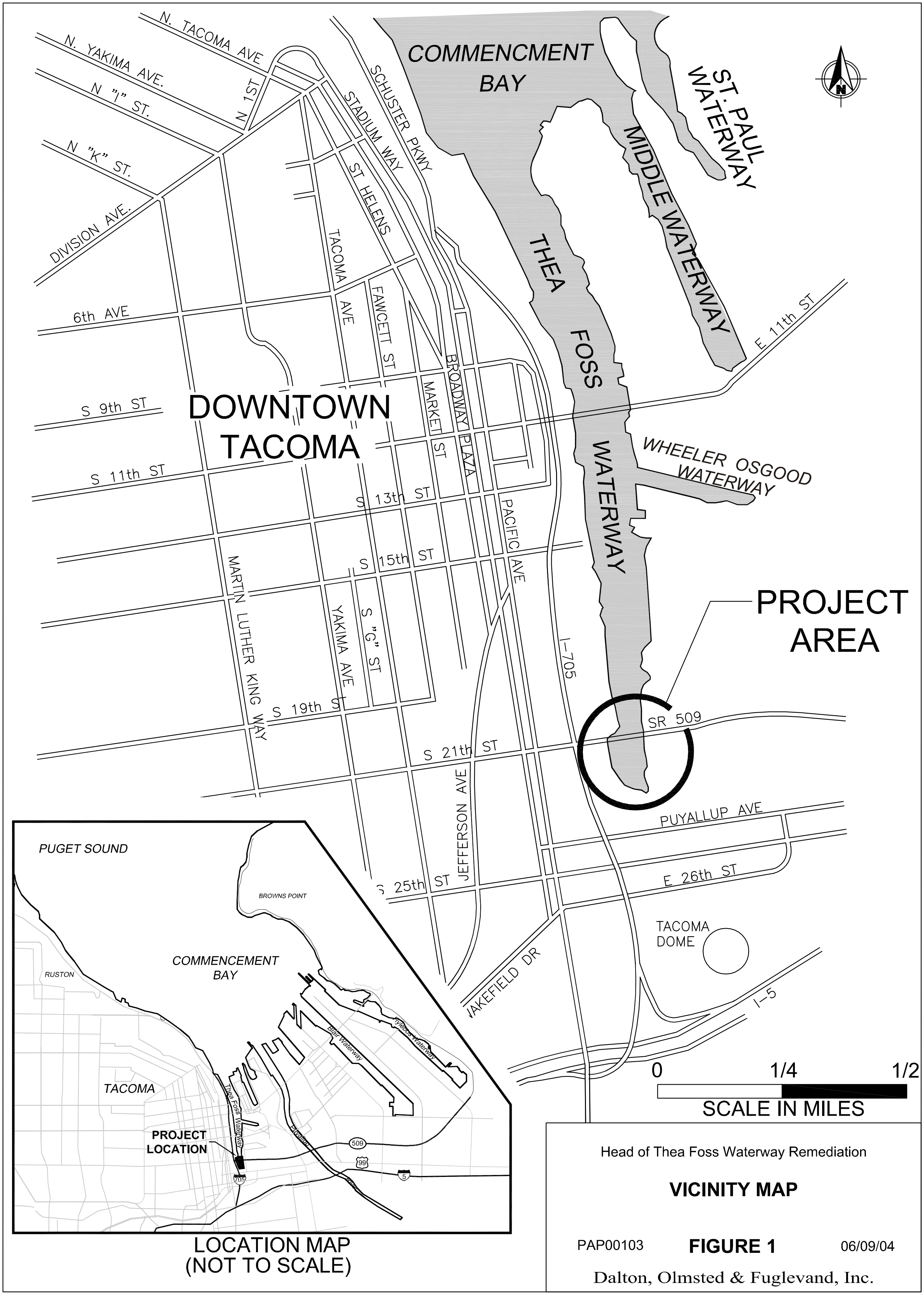
Units	Type of Samples	Sample Time Period	Lead (mg/kg) Median	Lead (mg/kg) Mean	HPAH (ug/kg) Median	HPAH (ug/kg) Mean	BEHP (ug/kg) Median	BEHP (ug/kg) Mean
237A-FD2	Sediment Trap	2007 to 2013	71	70	25190	20274	6900	7460
237B-FD1	Sediment Trap	2007 to 2013	46	54	12260	12277	4160	4392
235-FD6	Sediment Trap	2007 to 2013	134	124	6690	8076	15800	14300
243-FD23	Sediment Trap	2007 to 2013	711	661	12264	12671	14450	12125
0 to 2 cm	Early Warning (a)	2007 to 2014	92	94	11880	12142	5600	5900
0 to 10 cm	Compliance (a)	2007 to 2014	86	75	10918	11607	4200	5077
SQO	**-----**	**-----**	450	450	17000	17000	1300	1300

Note: (a) Turning Basin sediment sample locations (RC/WC-01 to RC/WC-07)

Table 6b - Comparison of Combined Sediment Trap (237A/237B) and Turning Basin Sediment

Units	Type of Samples	Sample Time Period	Lead (mg/kg) Median	Lead (mg/kg) Mean	HPAH (ug/kg) Median	HPAH (ug/kg) Mean	BEHP (ug/kg) Median	BEHP (ug/kg) Mean
237A + 237B	Sediment Trap	2007 to 2013	59	62	16275	14360	5030	5926
0 to 2 cm	Early Warning (a)	2007 to 2014	92	94	11880	12142	5600	5900
0 to 10 cm	Compliance (a)	2007 to 2014	86	75	10918	11607	4200	5077
SQO	**-----**	**-----**	450	450	17000	17000	1300	1300

Note: (a) Turning Basin sediment sample locations (RC/WC-01 to RC/WC-07)

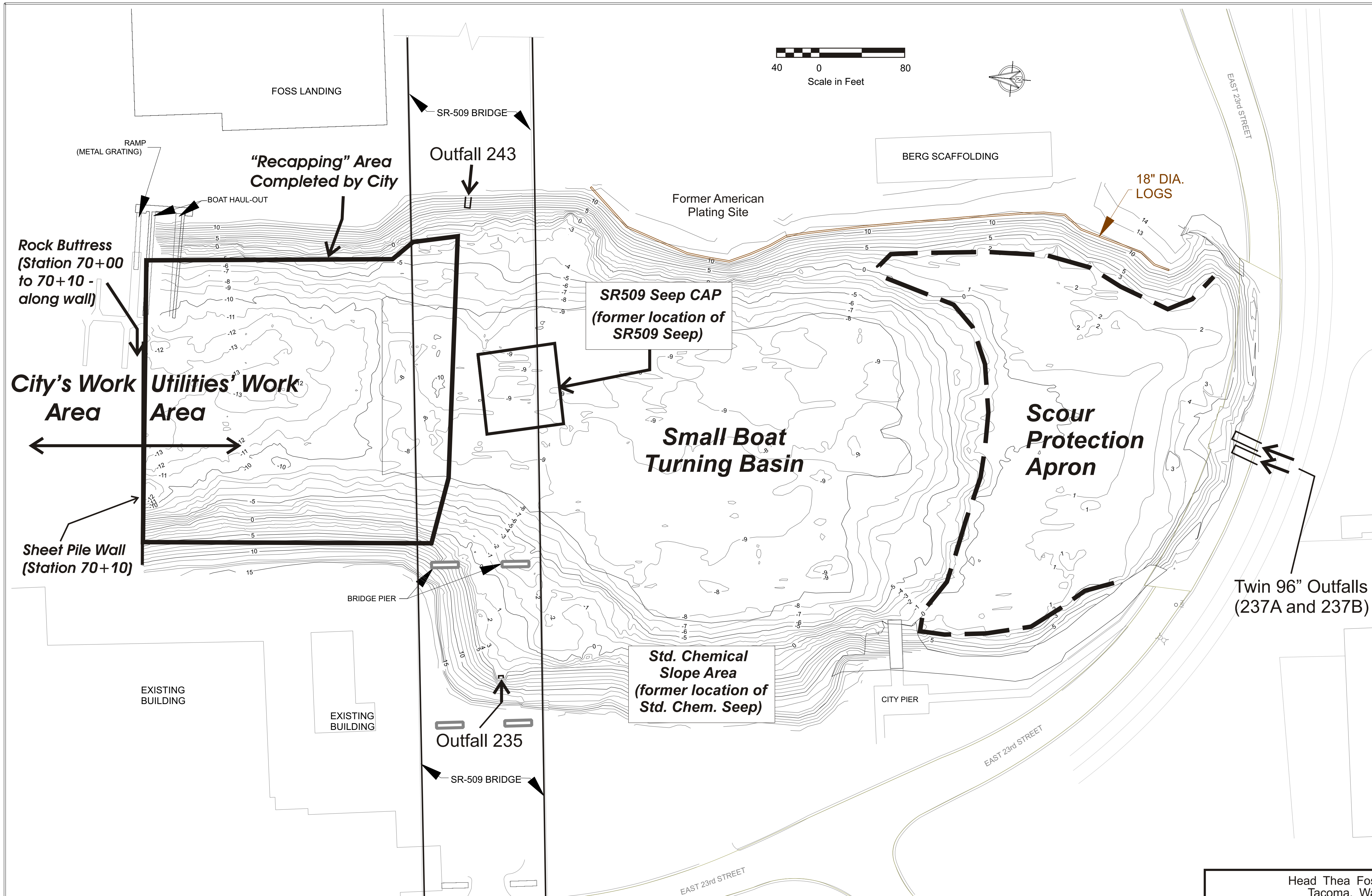


Head of Thea Foss Waterway Remediation

VICINITY MAP

PAP00103 **FIGURE 1** 06/09/04

Dalton, Olmsted & Fuglevand, Inc.



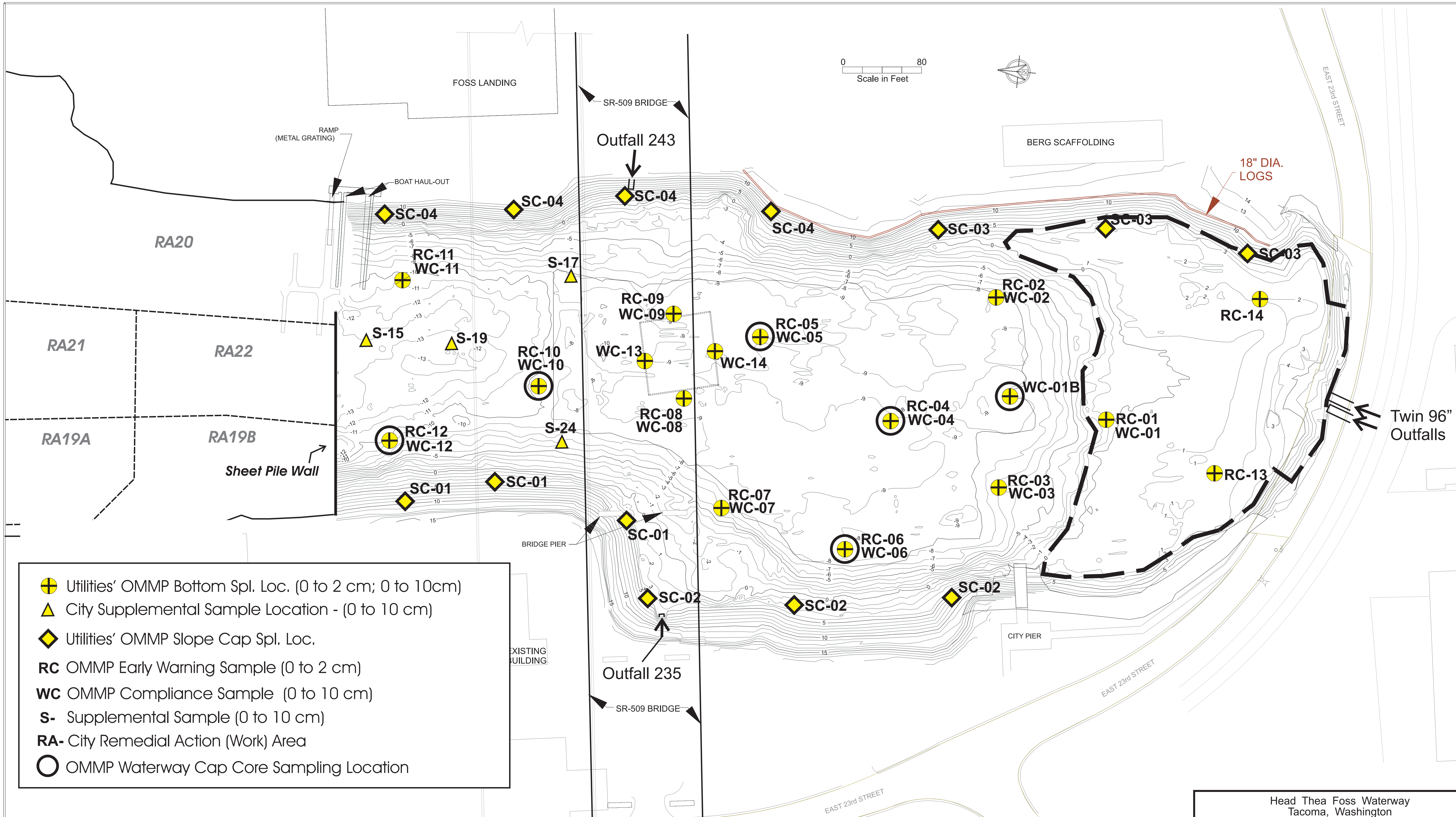
Head Thea Foss Waterway
Tacoma, Washington

Remedial Features
Utilities' Work Area

PAP-001-04 **FIGURE 2** Sept. 2006

Dalton, Olmsted & Fuglevand, Inc.

Ref: Head of waterway b 2006.cdr



Ref: Sur Spl Loc Map 2013.cdr

Head Thea Foss Waterway
Tacoma, Washington

Sediment Sampling Locations
Utilities Work Area
April/May 2014

PAP-001-04 **FIGURE 3** July 2014

Dalton, Olmsted & Fuglevand, Inc.

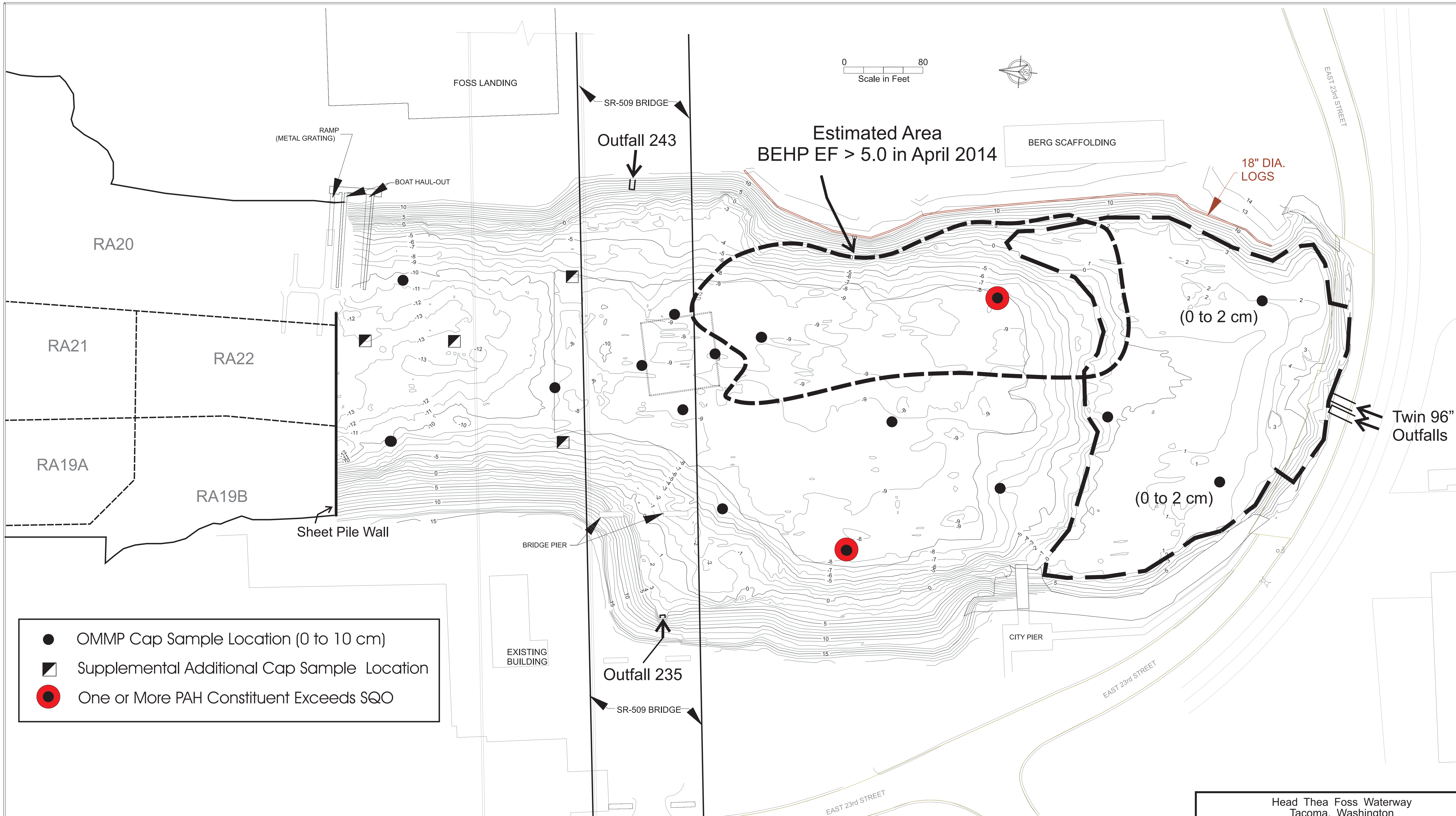
Head Thea Foss Waterway
Tacoma, Washington

BEHP Exceedance Factors in Compliance Sediment Samples April 2011 and April 2014

PAP-001-04 **FIGURE 4** July 2014

Dalton, Olmsted & Fuglevand, Inc.

Ref: Compliance BEHP EF 4-14.cdr



Head Thea Foss Waterway
Tacoma, Washington

PAH Locations That Exceed SQOs in Compliance Sediment Samples April 2014

PAP-001-04 **FIGURE 5** July 2014

Dalton, Olmsted & Fuglevand, Inc.

Ref: Compliance PAH EF 4-14.cdr

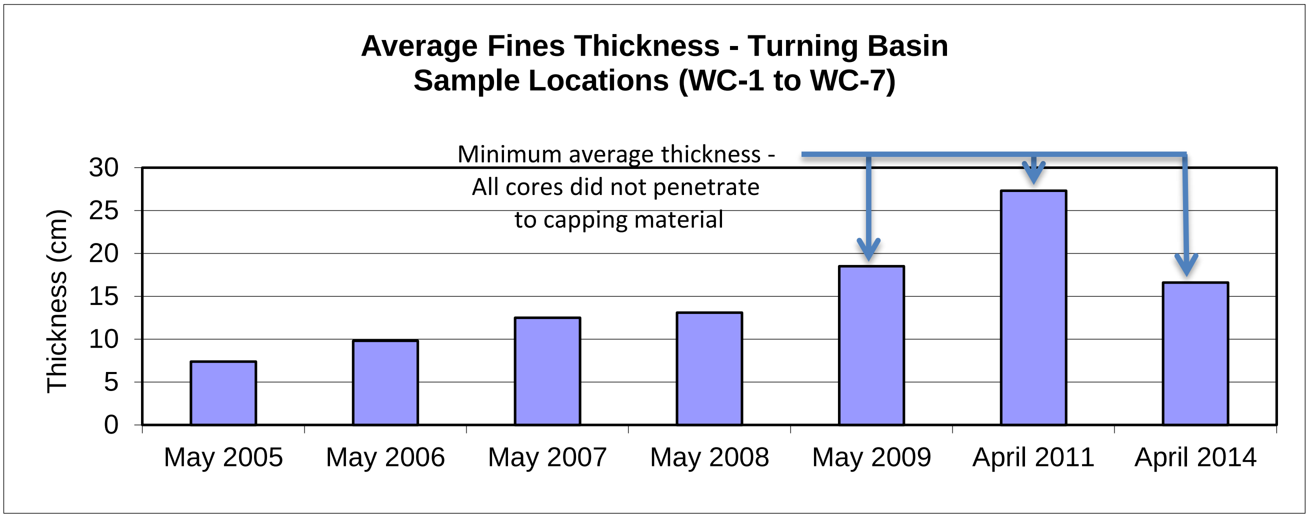
Head Thea Foss Waterway
Tacoma, Washington

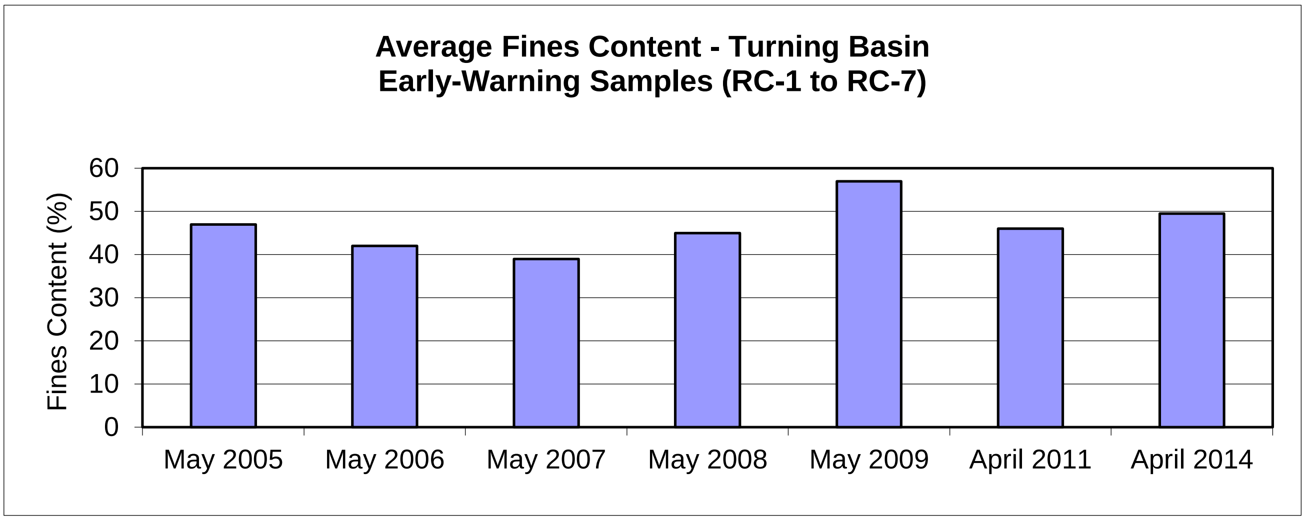
Thickness of Accumulated Sediment Above CAP - April 2014

PAP-001-04 **FIGURE 6** July 2014

Dalton, Olmsted & Fuglevand, Inc.

Ref: Fine Grained Thickness 4-14.cdr





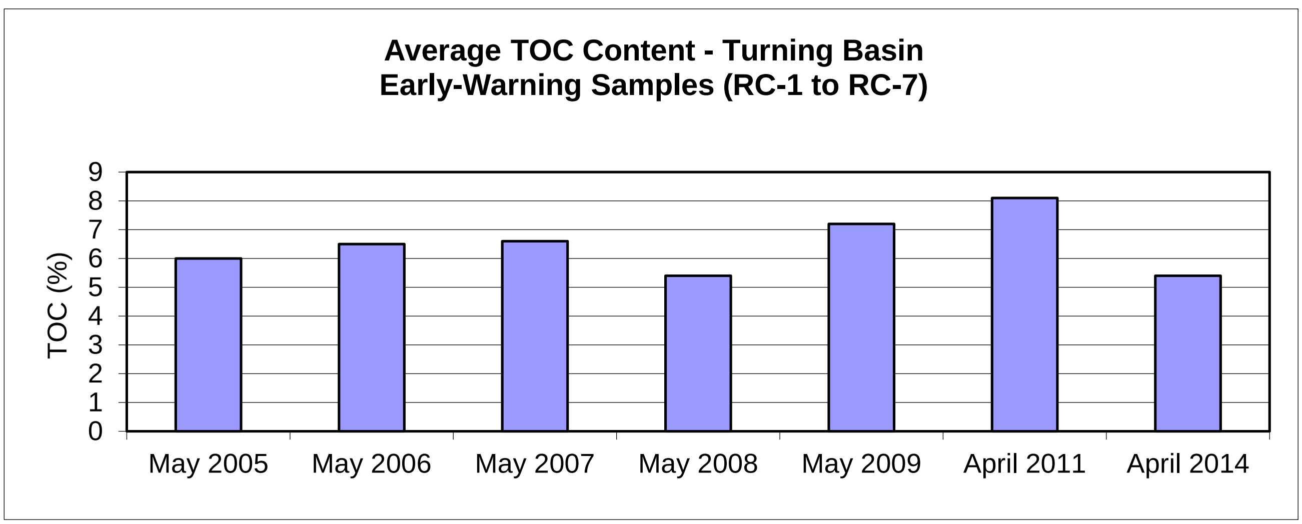
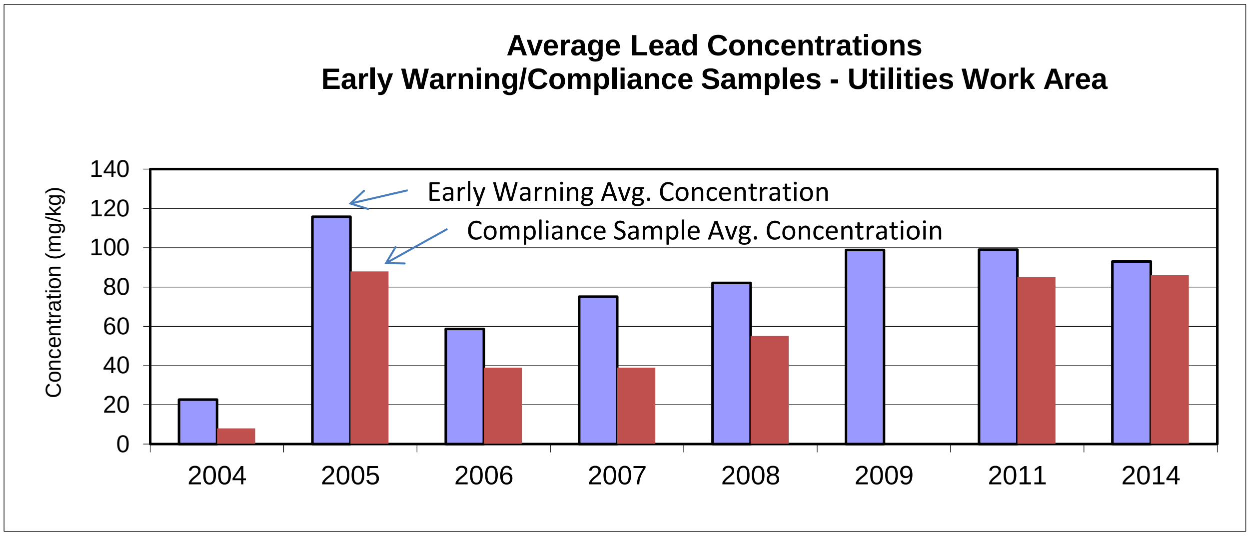
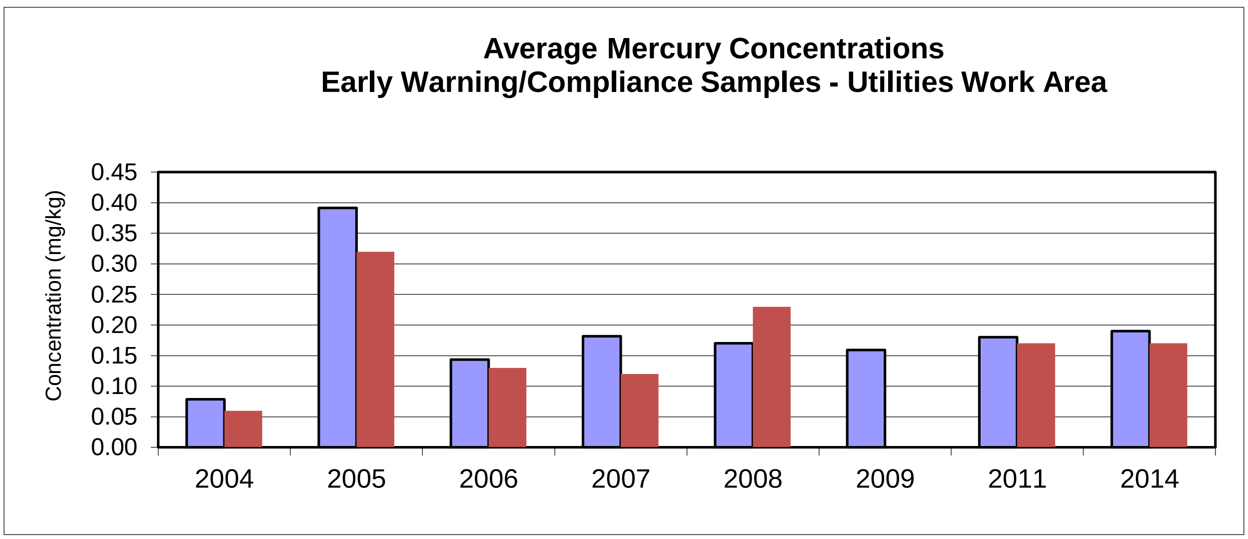


FIGURE 7
Characteristics Turning Basin
Sample Sediment





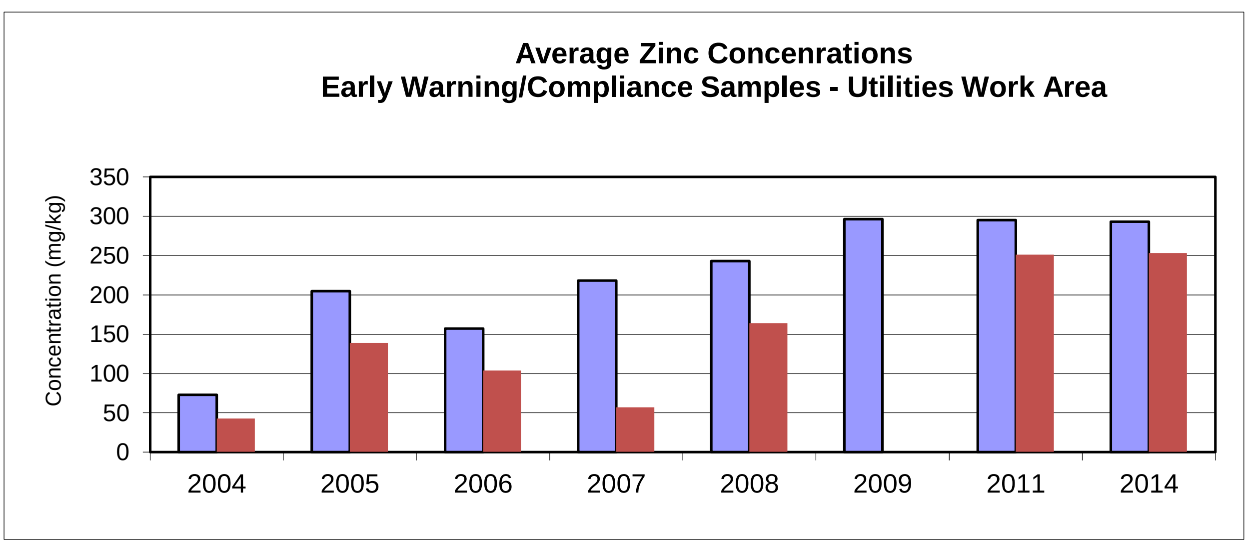
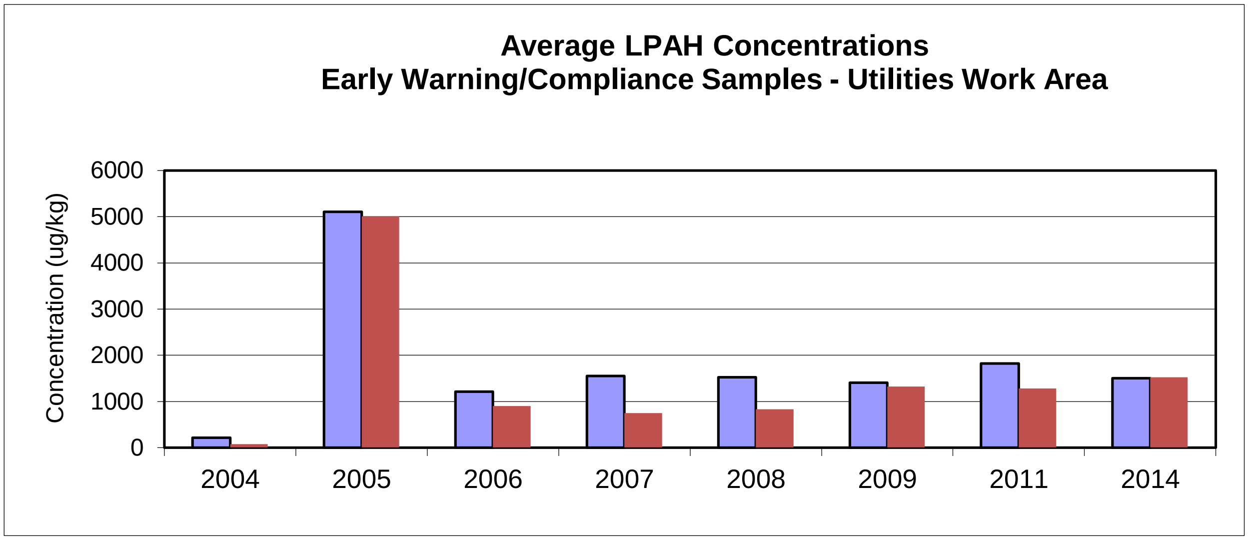
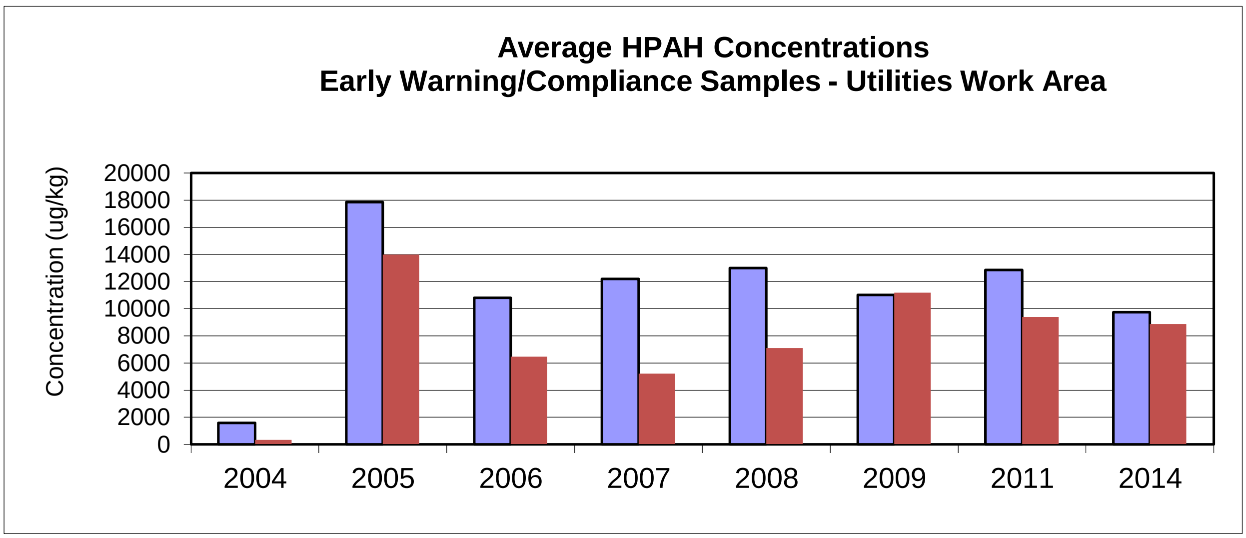


FIGURE 8
Average Concentrations
Utilities' Work Area





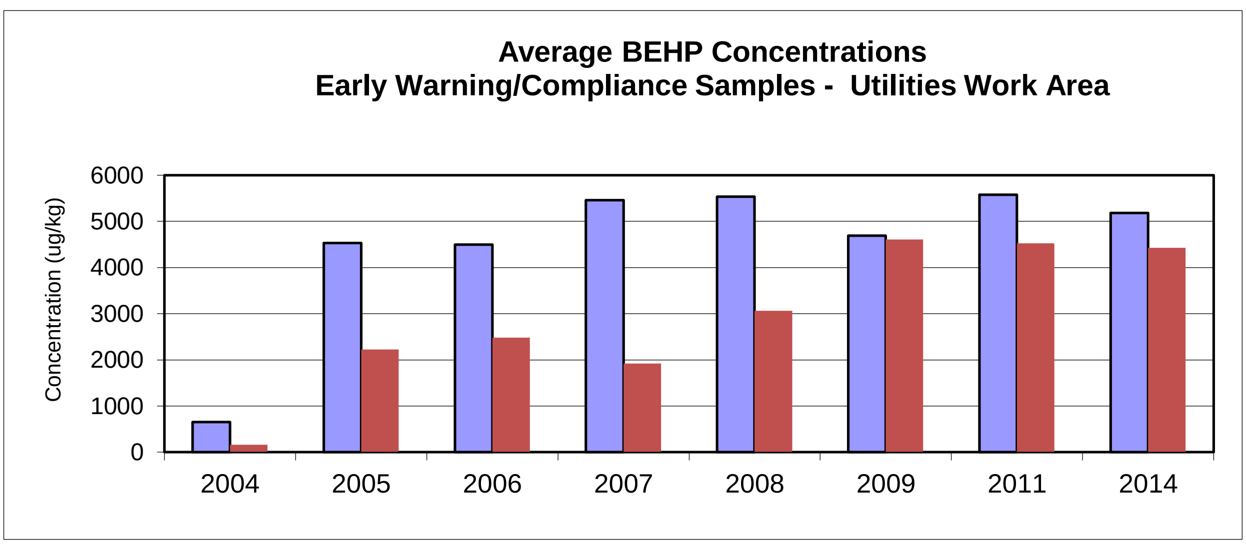
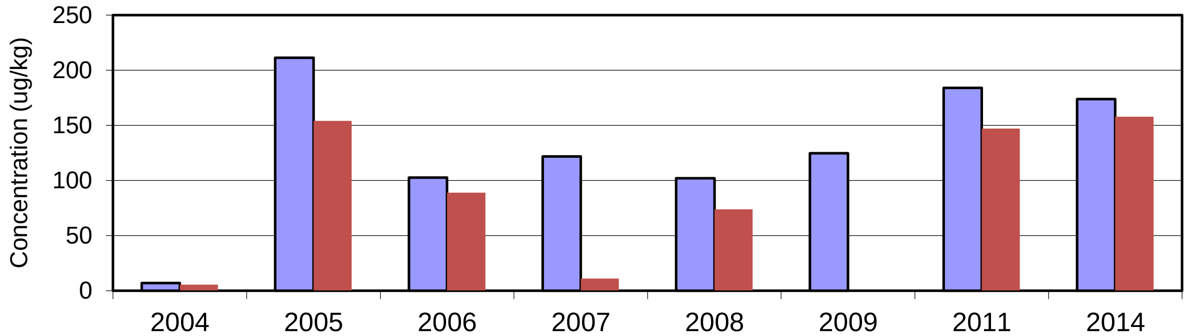


FIGURE 8
Average Concentrations
Utilities' Work Area

Average Total PCB Concentrations
Early Warning/Compliance Samples - Utilities Work Area



Average Lube-Oil Range Concentrations
Early Warning Samples - Utilities Work Area

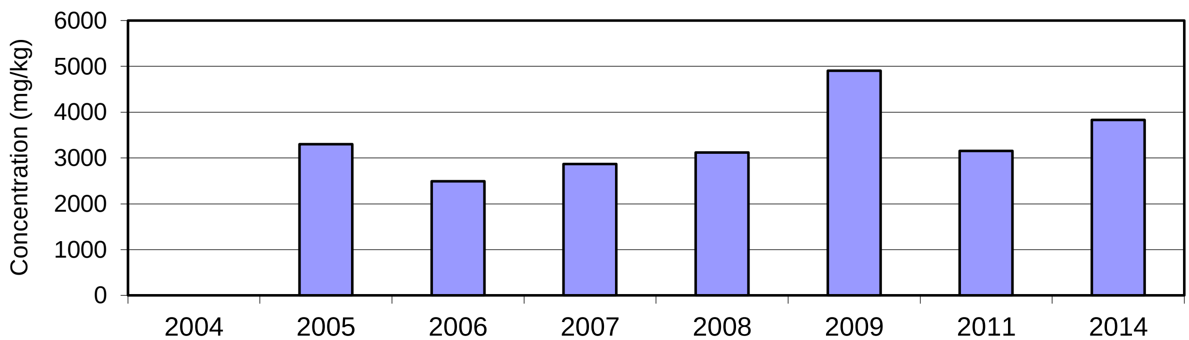
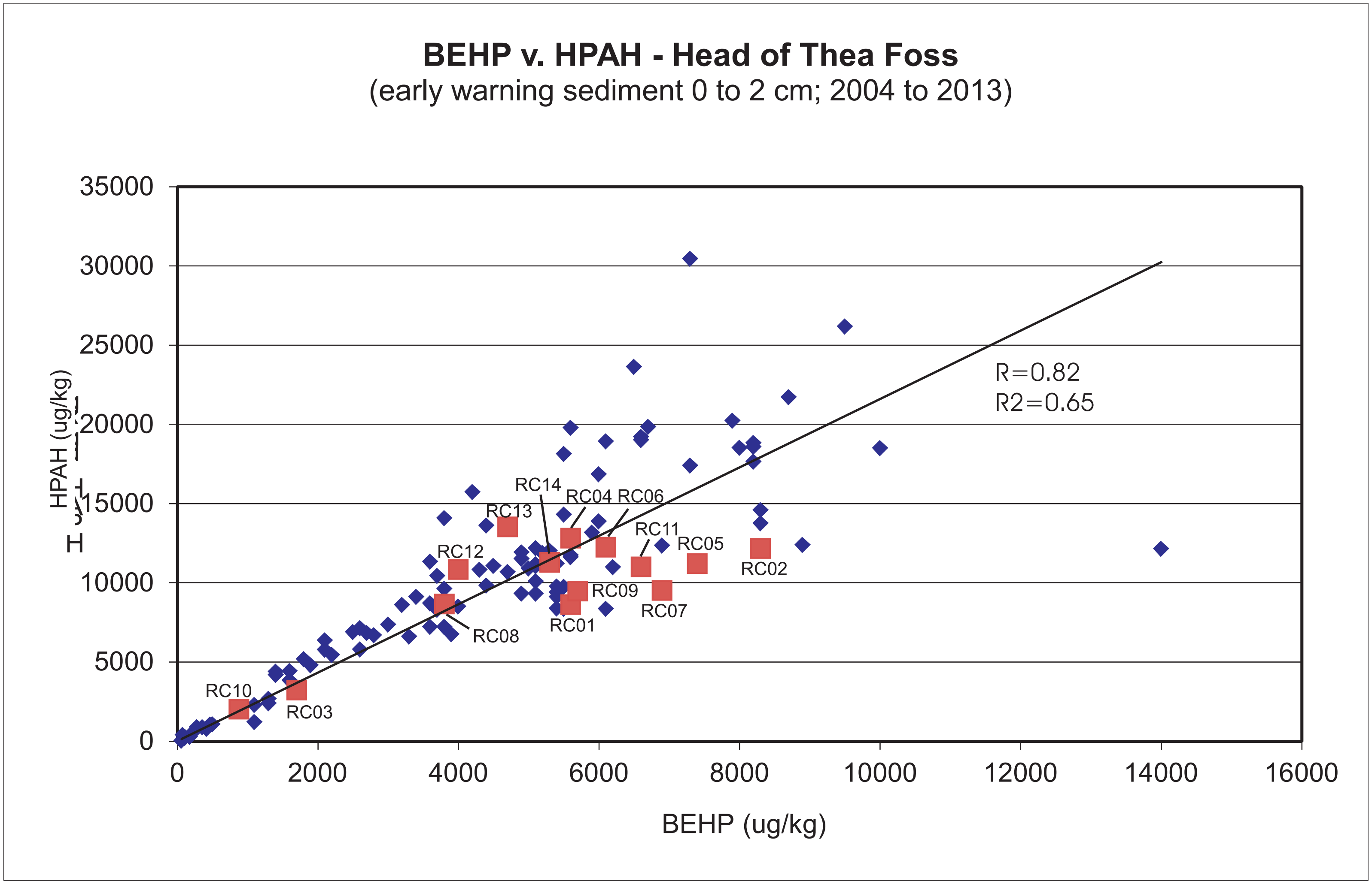


FIGURE 8
Average Concentrations
Utilities' Work Area



April 2014 Sample

2004 to 2011 Samples

Note: Plot does not include
2005 data in City recapping Area

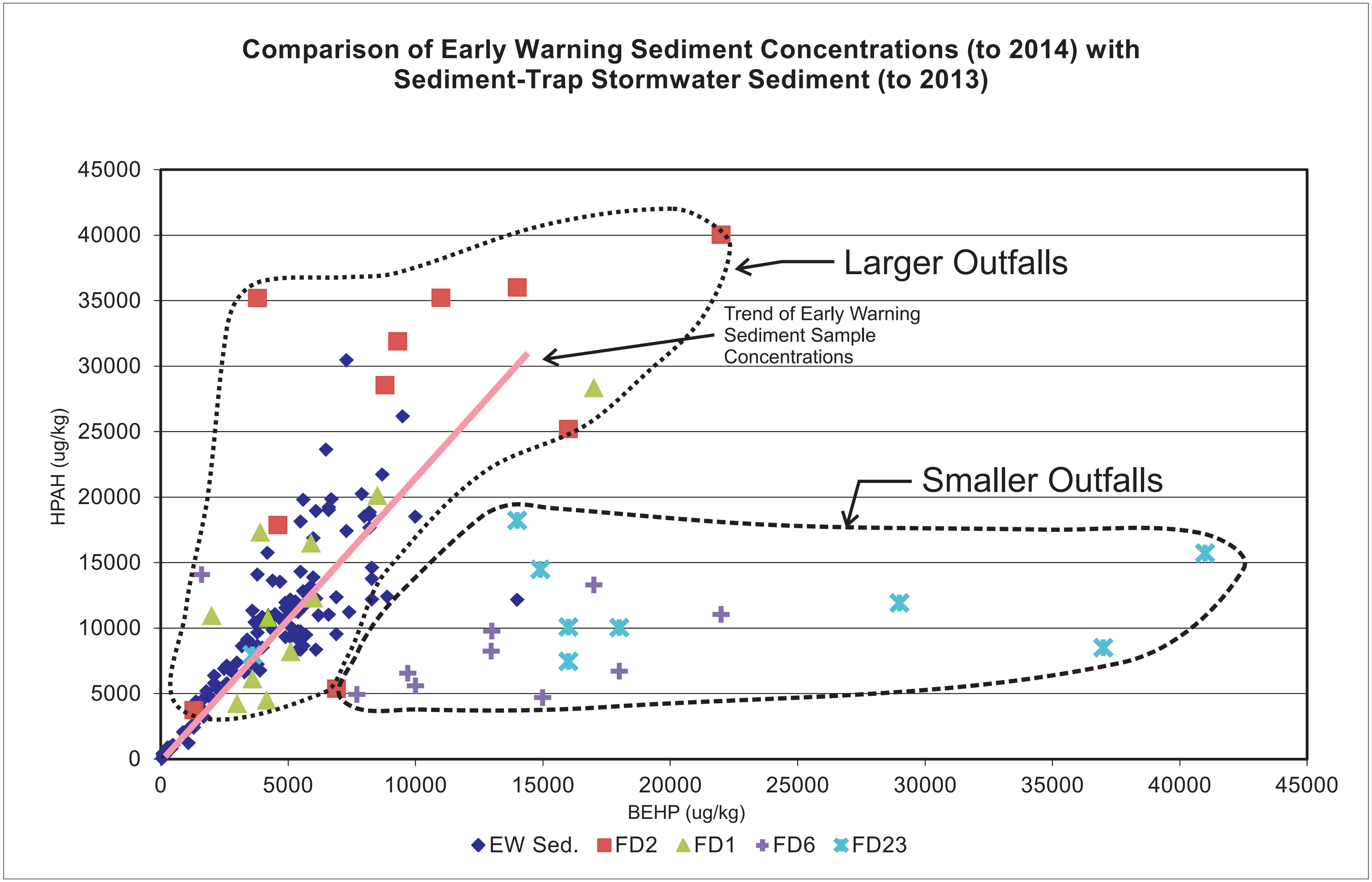
Head of Thea Foss Waterway
Tacoma, Washington

HPAH vs. BEHP Sediment Conc.
2004 to 2014 Early Warning Samples

PAP-001-04 **FIGURE 9** July 2014

Dalton, Olmsted & Fuglevand, Inc.

Ref: Early Warning Sediment 04 to 14.cdr



Outfalls

FD2 =237A FD6 = 235

FD1 = 237B FD23 = 243

EW Sed. = Early Warning Sediment Sample

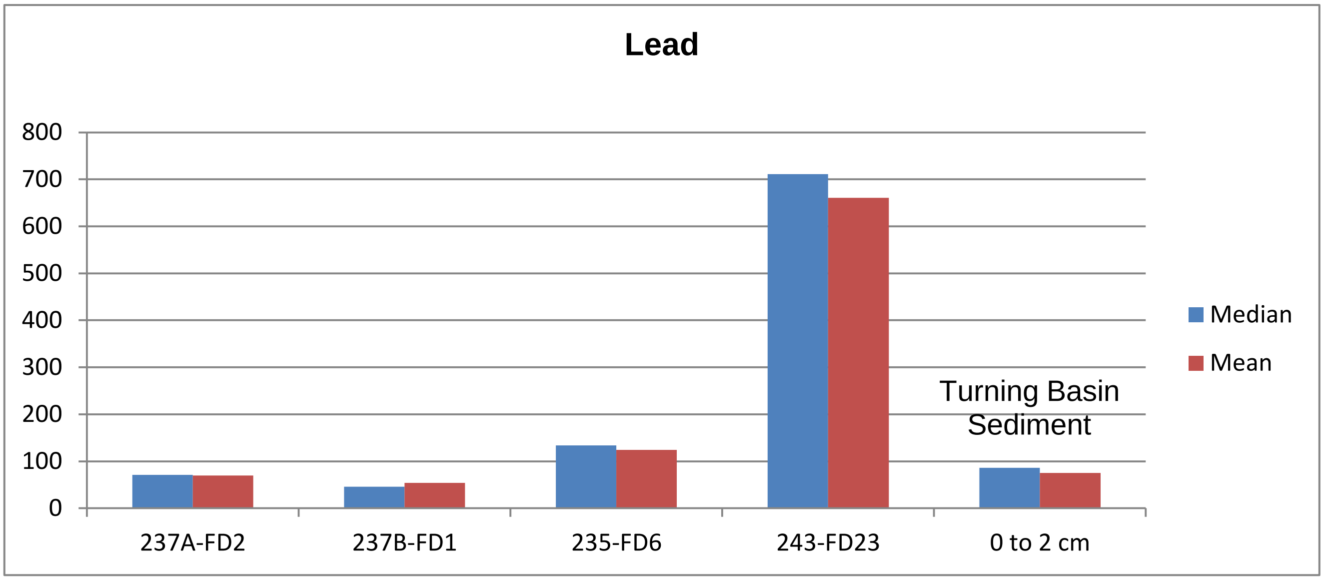
Ref: Comparison Sed w Sed Trap Thea Foss 13.cdr
(Early Warning Sediments 13.xls)

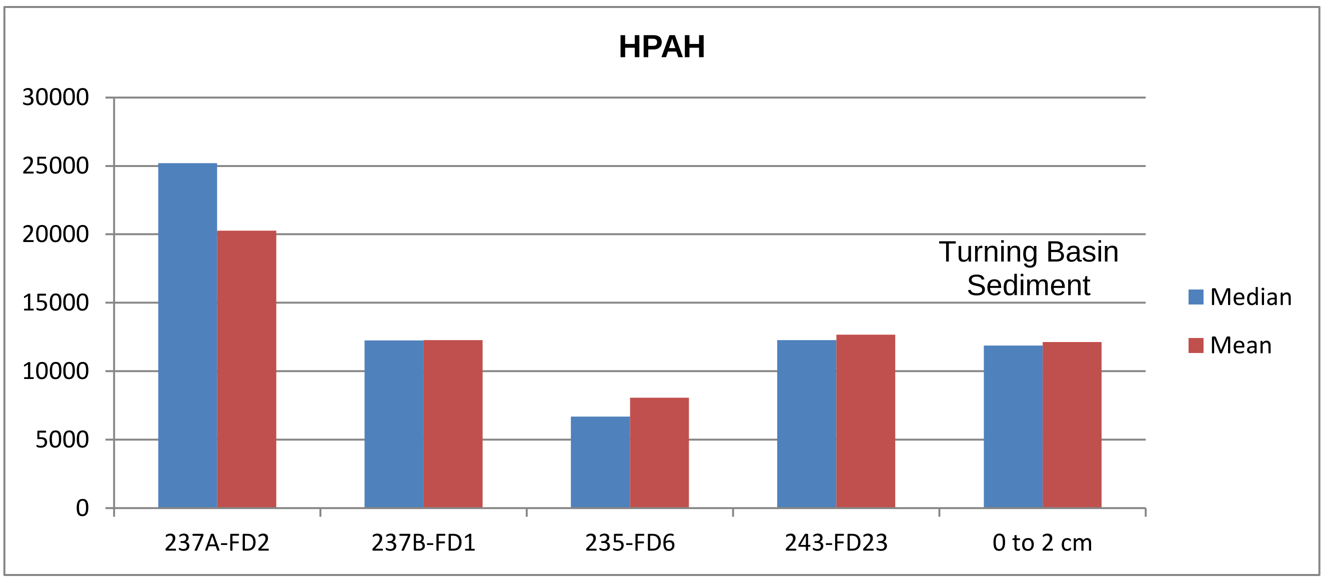
Head of Thea Foss Waterway
Tacoma, Washington

Comparison of HPAH and BEHP Sediment Conc. With Stormwater Sediment-Trap Conc.

PAP-001-04 **FIGURE 10** July 2014

Dalton, Olmsted & Fuglevand, Inc.





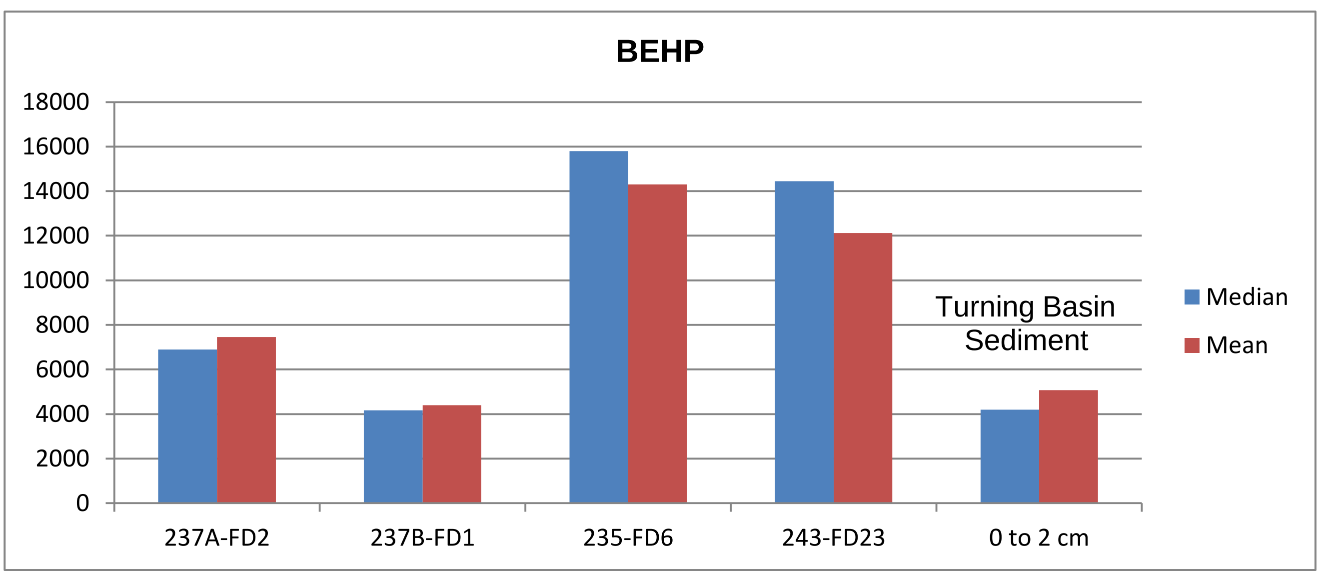


FIGURE 11
Sediment Sample Comparisons