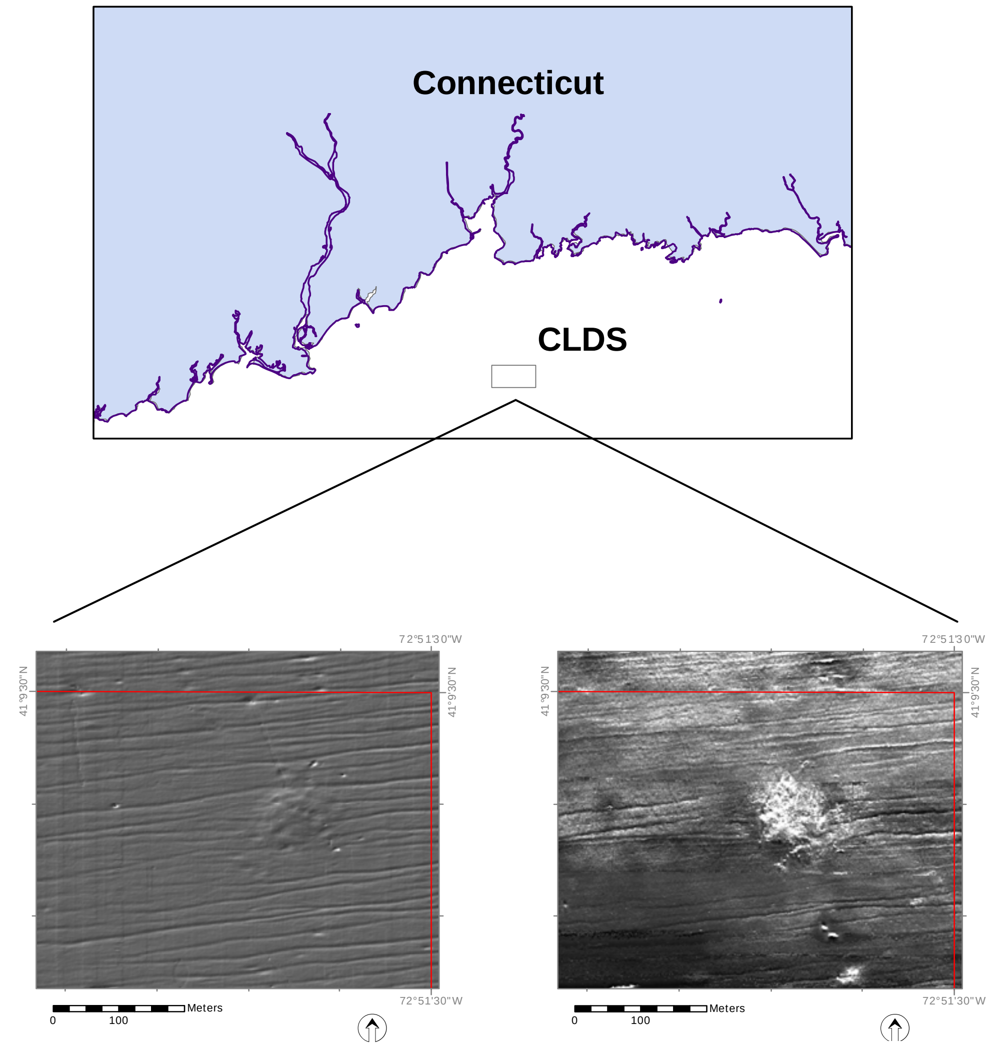
Field Verification Program (FVP) Disposal Mound Monitoring Survey 2005

Disposal Area Monitoring System DAMOS



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13. ABSTRACT

The Field Verification Program (FVP) Disposal Mound was monitored as part of the Disposal Area Monitoring System (DAMOS) in June 2005. The FVP mound was created at the Central Long Island Sound Disposal Site (CLDS) during the 1982-83 disposal season as part of the joint USEPA/USACE Field Verification Program. The primary objective of the 2005 survey was to determine current benthic community conditions and the distribution of contaminants across the FVP disposal mound. A second objective was to provide background information in support of determining future management options for the FVP mound. In June 2005, cores and Sediment Profile Imaging (SPI) stations were selected randomly on both the bathymetrically detectable mound and the historical extent of the flanks. Natural recovery of the historical flank sediments of the FVP mound has resulted in little biological and chemical difference relative to reference sediment, although the underlying Black Rock Harbor dredged material remains. The survey results showed the widespread presence of Stage III fauna at the disposal mound, with benthic communities on both the mound and flanks functionally equivalent to reference areas. Contaminant concentrations were low or below detection limits in reference samples, slightly higher in the flank cores, and highest in the central mound cores in samples collected from >10 cm below the sediment-water interface. The chemical signature in the surface sediments of the FVP area suggests that active diagenesis is taking place, most rapidly in the flank where only thin layers of dredged material were originally present. Active sedimentation, combined with bioturbation and sediment microbial metabolism are likely the main drivers of diagenesis that dilute the chemical signature of the sediments placed on the mound. The FVP mound has been one of the most intensively monitored mounds in the DAMOS Program over the past two decades. It is a unique case study of the long-term effects of placing material unsuitable for unconfined open-water disposal at an open-water location and, by default, employing an alternative remediation strategy of monitored natural recovery (MNR). One management alternative for the FVP mound is to cap, to ensure encapsulation of the BRH-associated contaminants in the center of the mound. Alternatively, a strategy of continued monitoring that is focused on both natural sedimentation processes in LIS, and MNR processes for dredged material deposits, may prove useful for a variety of applied and research objectives. The questions raised by analysis of historical FVP data suggest that there could be benefits for the dredged material management and sediment remediation community as a whole from future targeted monitoring.

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EXECUTIVE SUMMARY

A monitoring survey was conducted at the Field Verification Program (FVP) dredged material disposal mound in June 2005. The FVP mound was created at the Central Long Island Sound Disposal Site (CLDS) during the 1982-83 disposal season as part of the joint USEPA/USACE Interagency Field Verification of Testing and Predictive Methodologies for Dredged Material Disposal Alternatives Program, also known as simply the Field Verification Program. The primary objective of the 2005 survey was to determine current benthic community conditions and the distribution of contaminants across the FVP disposal mound. A second objective was to provide background information in support of determining future management options for the FVP mound. The FVP mound has been one of the most intensively monitored mounds in the DAMOS Program over the past two decades. It is a unique case study of the long-term effects of placing material unsuitable for unconfined open-water disposal at an open-water location and, by default, employing an alternative remediation strategy of monitored natural recovery (MNR).

Black Rock Harbor (BRH) sediment was used in a series of disposal experiments in the early 1980's and placed in upland, wetland, and aquatic settings. The unconfined, open-water FVP disposal mound was created from the disposal of approximately 55,000 m^3 of BRH sediment in May 1983. The mound was sampled frequently during the first five years after creation as part of the FVP, with concurrent and subsequent monitoring under the auspices of the DAMOS Program. Periodic monitoring has evaluated ecosystem recovery and long-term trends in benthic recolonization on the mound. The mound has shown a wide range of benthic community responses, from an initial classic primary successional recovery, to episodes of retrograde succession following regional events affecting Long Island Sound.

In June 2005, cores and Sediment Profile Imaging (SPI) stations were selected randomly on both the bathymetrically detectable mound and the historical extent of the flanks. The survey results showed the widespread presence of Stage III fauna at the disposal mound, with benthic communities on both the mound and flanks functionally equivalent to reference areas. The notable characteristics, as measured by the SPI camera, included the persistence of the dark optical signature in the subsurface sediments, the relatively shallow redox potential discontinuity (RPD) found in stations located on the center of the mound, and the lack of intense, bioturbational reworking of the sediments at depth. Most of the chemicals of concern showed a distinct pattern between the cores collected from reference areas, on the central mound, and on the historical mound flanks. Contaminant concentrations were low or below detection limits in reference samples, slightly higher in the flank cores, and highest in the central mound cores in samples collected from >10 cm below the sediment-water interface. The decrease of BRH-associated chemicals in the surface sediments of the FVP area suggests that active diagenesis is taking place, most rapidly in the flank where only thin layers of dredged material were originally present. Active sedimentation, combined with bioturbation, and sediment microbial metabolism are likely the main drivers of diagenesis that dilute the chemical signature of BRH sediment.

Natural recovery of the historical flank sediments of the FVP mound has resulted in little biological and chemical difference relative to reference sediment, although the underlying Black Rock Harbor material remains. Ambient sedimentation is the dominant catalyst for this recovery. Bioturbation is an important process in creating a mixing zone, and promoting oxygenation and successional recovery of the upper sediment layers. The mound has received an estimated 5-10 cm of new sediment from natural deposition processes since mound disposal. The BRH sediment at the central portion of the mound is covered by a thin ambient cap of oxygenated, relatively clean sediment, but the presence of contaminated sediment below this cap continues to hamper recovery. The cumulative record of monitoring to date at the FVP mound suggests that surface sediments at the center of the mound are susceptible to occasional retrograde biological succession due to periodic hypoxic events in bottom water, and potential resuspension of surface sediment.

One management alternative for the FVP mound is to cap, to ensure encapsulation of the BRH-associated contaminants in the center of the mound. Alternatively, a strategy of continued monitoring that is focused on both natural sedimentation processes in LIS, and MNR processes for dredged material deposits, may prove useful for a variety of applied and research objectives. The questions raised by analysis of historical FVP data suggest that there could be benefits for the dredged material management and sediment remediation community as a whole from future targeted monitoring. Some future monitoring and research objectives are suggested, including high resolution acoustic imaging, and creating a predictive model for the rate of continued MNR at the FVP mound.

1.0 INTRODUCTION

A monitoring survey was conducted at the Field Verification Program (FVP) dredged material disposal mound in June 2005 (Figure 1-1), providing information in support of choosing a future management approach for this uncapped mound. As part of the recent designation of the Central Long Island Sound Disposal Site (CLDS), the U.S. Environmental Protection Agency (USEPA) formalized the CLDS site boundaries to encompass the FVP area (USEPA 2004). The FVP mound was created in 1983 as part of a broad research effort on verification of dredged material testing protocols. As a result of this interest, it is one of the most intensively monitored dredged material mounds in the United States (Section 1.2), providing a unique historical record of monitored natural recovery (MNR; Thibodeaux et al. 1994). Site data collected during this survey were analyzed in the context of this history; management and remedial alternatives for the FVP mound are presented and discussed in light of the significance of the mound.

Data were collected under the auspices of the Disposal Area Monitoring System (DAMOS) Program (Section 1.1), a program conducted by the U.S. Army Corps of Engineers (USACE), New England District (NAE). The FVP disposal mound is an excellent case study of a contaminated sediment deposit that has been closely observed for more than 20 years and sampled for physical, chemical, geological, and biological data (Section 1.2). Survey data were collected in 2005 and were evaluated with respect to a management strategy in light of this historical perspective.

1.1 Overview of the DAMOS Program

DAMOS is a comprehensive monitoring and management program designed and implemented to address environmental concerns associated with the use of open-water disposal sites throughout the New England region. For over 25 years, the DAMOS Program has collected and evaluated disposal site data throughout New England. Based on these data, patterns of physical, chemical, and biological responses of seafloor environments to dredged material disposal activity have been documented. The Program features a tiered approach to monitoring that is designed to allow for assessment of compliance with disposal permit regulations, for verification of the validity of site model predictions and assumptions that are the foundation of the sampling design, and for identification of long-term environmental trends that could be related to disposal activity (Fredette and French 2004). The tiered approach provides recommendations for monitoring techniques and guidelines for defining when additional, more intensive monitoring is warranted (Germano et al. 1994).

Disposal site monitoring surveys are designed to collect data that will allow evaluation of the environmental status of each disposal site relative to conditions immediately after disposal of dredged material and to conditions in nearby reference areas unaffected by disposal activities. The monitoring survey results are evaluated to determine the next step in the management process of each specific disposal site. Focused studies are periodically undertaken within the DAMOS Program to evaluate historical mounds such as FVP, or other inactive disposal sites.

1.2 Background to the Field Verification Program

The FVP mound was created at the CLDS during the 1982-83 disposal season as part of the joint USEPA/USACE Interagency Field Verification of Testing and Predictive Methodologies for Dredged Material Disposal Alternatives Program, also known as simply the Field Verification Program (FVP; Figure 1-1). This cooperative research program, sponsored by the Office, Chief of Engineers, was assigned to the U.S. Army Engineer Research and Development Center (ERDC). The project ran from 1982 to 1988, and its objective was to field-verify existing test methods for predicting the environmental consequences of dredged material disposal under aquatic, wetland, and upland conditions (Peddicord 1988). The aquatic portion was carried out by the USEPA's Environmental Research Laboratory in Narragansett, RI (Gentile et al. 1988).

The FVP disposal mound was created from the disposal of approximately 55,000 m^3 of Black Rock Harbor (BRH) sediment in May 1983, and served as the unconfined open-water disposal mound during this research program. The underlying assumption was that if adverse effects were to be seen from placing material that would be considered unacceptable for open-water disposal, they should occur on this particular mound. Baseline (predisposal) surveys were conducted in 1982. The mound was sampled quite frequently during the first five years after disposal as part of the FVP research program (Scott et al. 1987), with concurrent and subsequent monitoring under the management of the DAMOS Program. Periodic monitoring occurred throughout the 1980s and 1990s to look at ecosystem recovery and long-term trends in benthic recolonization on the mound (Table 1-1). The mound has shown a wide range of benthic community responses, from an initial classic primary successional recovery following disturbance during the FVP research program (Scott et al. 1987), to episodes of retrograde succession following Hurricane Gloria (Parker and Revelas 1988) and hypoxic events in Long Island Sound (LIS) (Morris 1997).

Sediment dredged from Black Rock Harbor consisted of black, fine-grained silts and clays with high water content and elevated concentrations of metal and organic contaminants. Samples collected in BRH in 1983 (Table 1-2) showed high concentrations

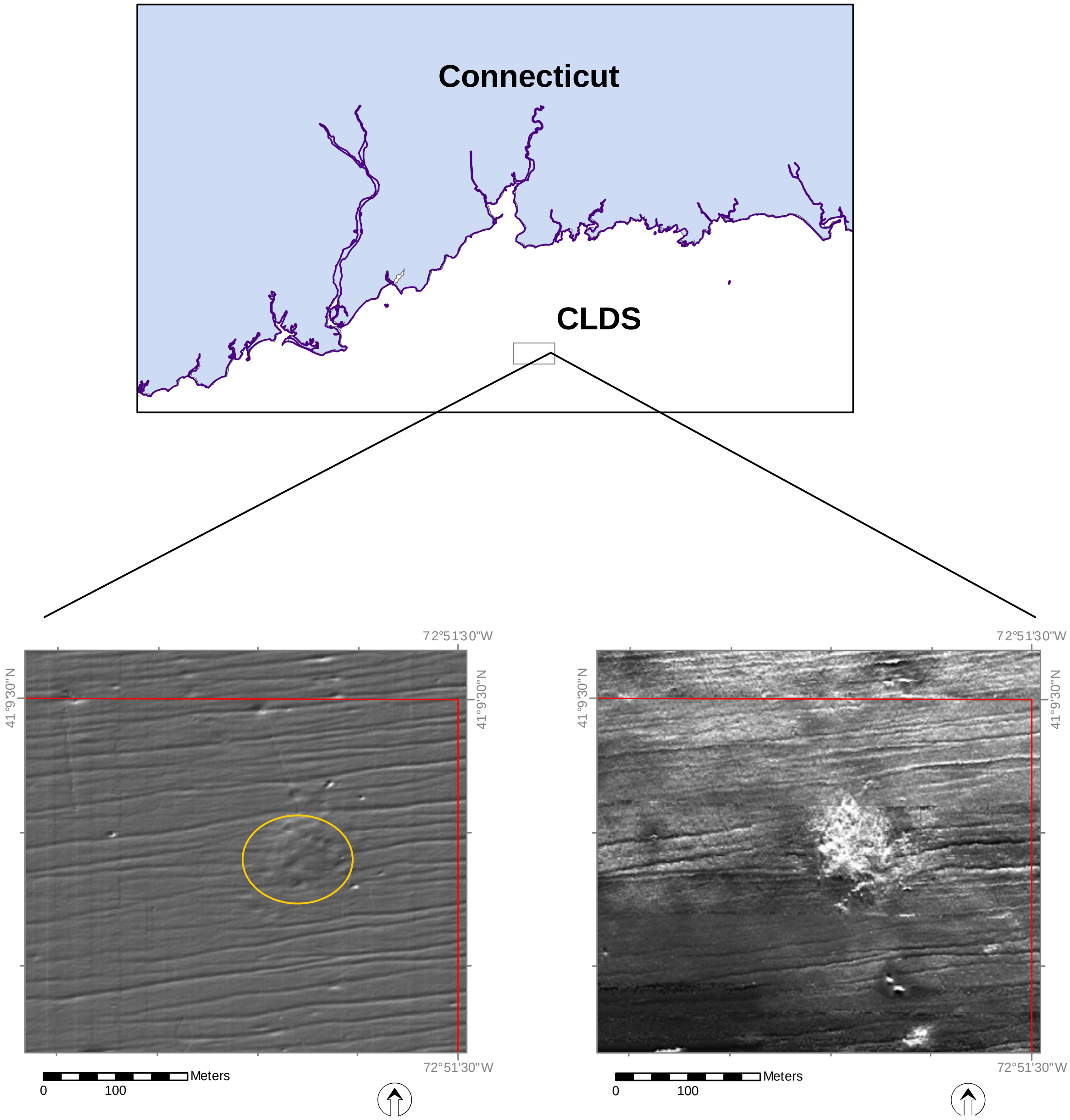

Figure 1-1. Location of the Central Long Island Disposal Site (CLDS) in Long Island Sound (top panel) and views of the northwest corner of CLDS (boundary in red; bottom panels). Hillshaded multibeam data (ENSR 2006) shows detailed bathymetry, with approximate location of the bathymetrically measurable boundary (19.5 m contour) shown in yellow (bottom left). Sidescan data from 1997 (Poppe et al. 2001) draped over the multibeam image shows backscatter from the mound and associated features (bottom right).

Table 1-1.

Historical Record of Monitoring at FVP

Year	Survey Objective[1]	Monitoring Activity: *Bathymetry*	*Sidescan*	*Sediment Imaging*	*Chemistry Grain Size*	**Reference[2]**	**Comments**
1982	Baseline - multiple surveys	√	√	√	√	1	Also biological field/laboratory biological testing, diver observations
1983	Pre-, interim, and post-disposal	√	√	√	√	2	Also diver observations, suspended sediment, geotechnical testing
1984	Post-disposal monitoring			√		3	
1985	Pre- and post-storm monitoring	√		√		4	Hurricane Gloria studies
1986	Long-term monitoring			√	√	5	Also benthic community and tissue chemistry analyses
1987	Long-term monitoring			√	√	6	Sediment/tissue chemistry at 1 station 1000m east of FVP; dissolved oxygen
1991	Long-term monitoring			√		7	
1993	Long-term monitoring			√		8	
1995	Long-term monitoring			√	√	9	
1997	Regional survey	√	√			10	USGS survey
1999-2000	Long-term monitoring	√		√		11	
2001	Long Island Sound EIS				√	12	USEPA-sponsored, includes bioassay and benthic ecology samples.
2001	Regional survey	√	√			13	USGS/NOAA survey
2005	Monitoring survey	√		√	√	14	

[1]Surveys are all DAMOS dredged material disposal monitoring surveys unless otherwise noted in comments.
[2]References: 1)Morton et al. 1982 and 82-83 refs; 2)Morton 1983 and 82-83 refs; 3)Germano and Rhoads 1984; Morton et al. 1984; 4)Morton et al. 1985; Parker and Revelas 1988; 5)SAIC 1990a; 6)SAIC 1990b; 7)Wiley and Charles 1995; 8)Morris, Charles and Inglin 1996; 9)Morris 1997; 10)Poppe et al. 2001; 11)SAIC 2002; 12)ENSR 2001; 13)Poppe et al. 2004; 14)ENSR 2006; Myre et al. 2006. 82-83 references (FVP Program): Gentile et al. 1988; Peddicord 1988; Rogerson et al. 1985; Scott et al. 1987.

Table 1-2.

Concentrations of Selected Contaminants for Black Rock Harbor and the FVP Mound (dry weight)

Chemical Compound	Black Rock Harbor[1]	FVP[2]
Phenanthrene (ppb)	5,000 +/- 1,800 (15)	3,300 (C-01D)
Fluoranthene (ppb)	6,300 +/- 1,300 (15)	4,100 (C-01D)
Benzo(a)pyrene (ppb)	3,900 +/- 970 (15)	1,700 (C-01D)
Total PAHs (ppb)[3]	142,000 +/- 30,000 (15)	25,645 (C-01D)
PCB as Aroclor 1254 (ppb)	6,400 +/- 840 (15)	
Total PCBs (ppb)[3]		1,675 (B-03D)
Copper (ppm)	2,900 +/- 310 (18)	2,030 (C-01D)
Cadmium (ppm)	24 +/- 0.6 (18)	21.8 (C-01D)
Chromium (ppm)	1,480 +/- 83 (18)	804 (C-01D)
Iron (ppm)	31,000 +/- 2,800 (18)	27,700 (B-03A)

[1]All data from Gentile et al. 1988. Mean +/- one standard deviation reported (number of samples in parentheses).

[2]Maximum concentration reported from June 2005 cores collected for this survey (sample identifier in parentheses).

[3]Totals for FVP calculated as stated in Section 3.2; unknown how totals calculated in historical BRH data providing some uncertainty to comparisons.

of polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and several metals including chromium (Cr) and copper (Cu) (Gentile et al. 1988; Rogerson et al. 1985). Exposure to BRH sediment resulted in both chronic and acute effects in several test species, as well as PCB and PAH bioaccumulation (Gentile et al. 1988).

In 1983, after disposal, a series of bathymetric surveys showed the formation of a small deposit approximately 200 x 100 m, with the major axis in the east-west direction; the maximum height of the small mound was 1.8 m (Morton et al. 1984). Surface sediment samples collected immediately postdisposal at the center station (CTR) consisted of a mixture of gray sand and cohesive gray clay clumps within a matrix of soft, black organic silt. The black sediment had high water content, ranging from 117 to 150%; water content outside the black silt matrix was slightly lower due to the presence of sand (ranged from 63 to 99%; Morton et al. 1984). Percent water content here, and in the following section, is calculated following the geotechnical engineering definition:

(weight of water)/(weight of solids) x 100%,

so values of >100% are possible, and such high values are consistent with prior measurements published for Black Rock Harbor.

The areal extent of the dredged material apron was mapped using a sediment-profile imaging (SPI) camera, confirming the east-west orientation of the dredged material apron (Germano and Rhoads 1984). The zone of impact was defined by a contour within which the visual apparent redox potential discontinuity, or aRPD, was nonexistent (i.e., aRPD thickness of zero cm).

Postdisposal reduction in habitat quality was typical of newly disturbed bottom, but FVP research program monitoring showed an initial classic primary successional recovery following disturbance (Scott *et al*. 1987). SPI data showed variable recovery within 200 m of the center of the mound, possibly because the top of the mound center was more susceptible to physical disturbance than the flanks. Due to an offset of the standard cross-shaped pattern of sampling stations, the station labeled “100E” during several of the surveys was actually located at the center of the mound, and the station labeled “CTR” was located approximately 100m west of the center (SAIC 2002). Retrospectives of historical SPI data discussed in this report have adjusted this discrepancy so that grouping of mound and flank stations is consistent.

1.3 Project Objectives

The primary objective of the 2005 survey was to determine current benthic community conditions and the distribution of contaminants across the FVP disposal mound.

Cores and SPI stations were selected randomly on the bathymetrically detectable mound (above the 19.5 m contour interval, Figure 1-1); these are referred to as on-mound stations. Stations were also randomly placed surrounding the mound on the historical extent of the original dredged material apron; these are referred to as flank stations. Finally, core and SPI stations were randomly occupied at the historical CLIS-REF reference station for comparison purposes.

The second objective of data collection and analysis was to provide background information in support of determining future management options for the FVP mound. By default, the FVP mound is an example of natural recovery, as it has not been capped or otherwise altered following original formation 22 years prior to the 2005 survey. Therefore, the cumulative and unprecedented record of benthic assessment will help to determine the direction future management should take. The options evaluated ranged from fully capping the mound (the most environmentally conservative), to leaving the mound uncapped and developing a strategy to glean maximum information from future monitoring of the deposit.

2.0 METHODS

The 2005 FVP survey was conducted on 27-29 June 2005. The data were collected onboard the R/V *Shanna Rose*, based in Hull, MA. Navigation support was provided by CR Environmental, Inc; navigation to SPI and core stations was conducted using HYPACK® hydrographic acquisition software using a Global Positioning System (GPS). Station locations and water depths for SPI and cores are provided in Appendix A. All position data are reported in North American Datum, 1983 (NAD83).

The on-mound and flank areas were determined using the 2000 master bathymetric data (SAIC 2002). A total of twenty SPI locations were sampled from the on-mound (above the 19.5 m contour) and flank areas of the historical FVP mound (Figure 2-1; Section 2.1). Seven cores were collected, including five box cores and two gravity cores. Three box cores and both gravity cores were collected from the on-mound area, and two box cores from the flank. The box cores were intended for high-resolution sampling of the upper 20 cm of the FVP material. Two gravity cores were collected near the center of the on-mound area for a more complete record of the FVP mound stratigraphy (Figure 2-2; Section 2.2). Reference data were collected at five SPI stations and five box cores from CLIS-REF (Figure 2-1; Figure 2-2).

2.1 Sediment Profile Imaging

On 29 June, three replicate sediment-profile images were collected at each of 20 stations, encompassing both the on-mound (SON stations) and flank (SOF stations) of the historical FVP mound (Figure 2-1). Five SPI stations (R-01 – R-05) were also occupied at the CLIS-REF reference area (Appendix A).

All 25 stations were sampled with an Ocean Imaging Model 3731 digital sediment-profile camera. Details on the operation, deployment, and analysis of the resulting images from the sediment-profile camera have been published in previous DAMOS contributions (e.g., ENSR 2004).

2.2 SPI Data Processing

The objective of the SPI survey at the FVP mound area was to assess the benthic condition of the mound relative to reference conditions. Traditionally, this objective has been addressed using point null hypotheses of the form “There is no difference in benthic conditions between the Reference Area and Disposal Mound.” We consider an approach using bioequivalence or interval testing to be more informative than the point null hypothesis test of “no difference”. There is always some small difference, and the

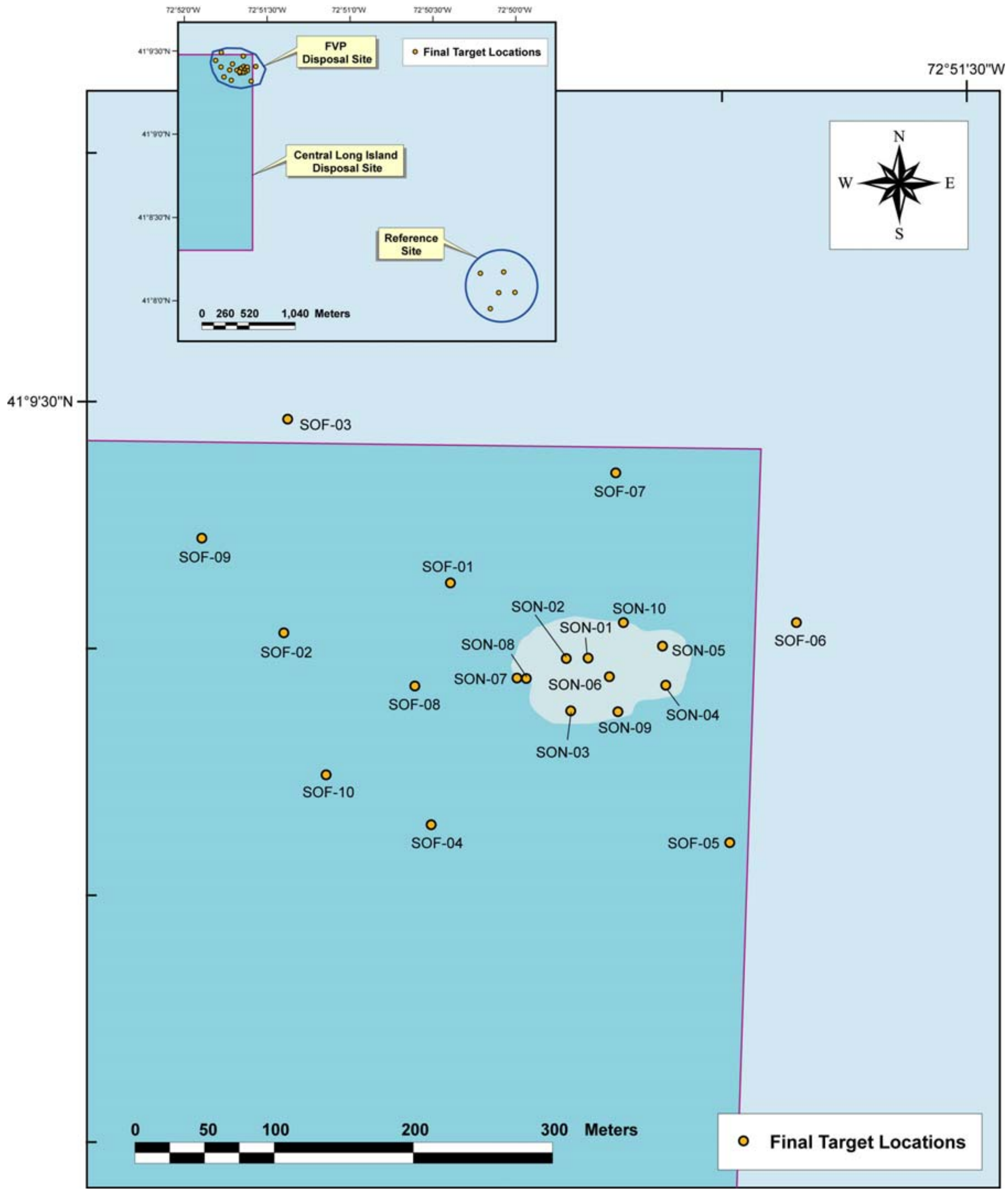

Figure 2-1. Locations sampled with the sediment-profile camera in June 2005; three replicate images were collected at each station. Contour line demarcating the FVP on-mound boundary represents the approximate 19.5 meter contour.

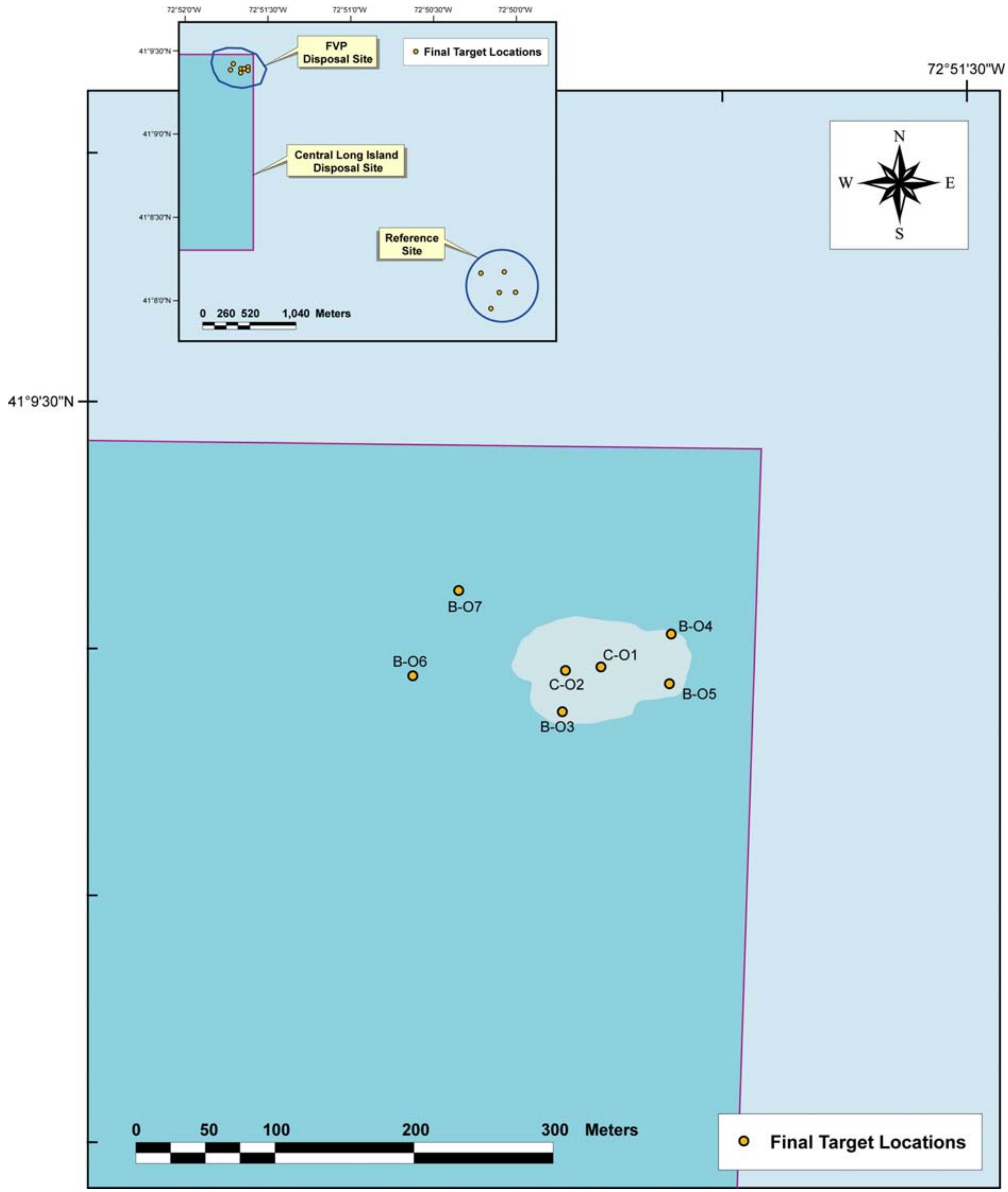

Figure 2-2. Core locations sampled in June 2005; B cores are box cores, C cores are gravity cores. Contour line demarcating the FVP on-mound boundary represents the approximate 19.5 meter contour.

statistical significance of this difference may or may not be ecologically meaningful. Without an associated power analysis the results of this type of point null hypothesis provide an incomplete picture of the results.

In this application of bioequivalence (interval) testing we have chosen to specify the null hypothesis as one that presumes the difference is small because disposal occurred over 20 years ago, i.e., an equivalence hypothesis (e.g., McBride 1999). This is recognized as a 'proof of hazard' approach because rejection of this equivalence null hypothesis requires sufficient proof that the difference is actually great. The null and alternative hypotheses to be tested are:

$$H_0: -\delta < d < \delta \text{ (requires proof that the difference is small)}$$

$$H_A: d \leq -\delta \text{ or } d \geq \delta \text{ (presumes the difference is great)}$$

where "d" is the difference between a reference mean and a site mean. If the null hypothesis is rejected, then we conclude that the two means are not different from one another within $\pm\delta$ units. The size of δ should be determined from historical data and/or best professional judgment to identify a maximum difference that is within background variability (noise) and is therefore not ecologically meaningful.

The test of this interval hypothesis can be broken down into two one-sided tests (TOST) (McBride 1999 after Schuirmann 1987), which are based on the normal distribution, or on Student's *t*-distribution when sample sizes are small and variances must be estimated from the data (usually the only situation found). The statistics used to test the interval hypotheses shown here are based on such statistical foundations as the Central Limit Theorem (CLT) and basic statistical properties of random variables. A simplification of the CLT says that the mean of any random variable is normally distributed. Linear combinations of normal random variables are also normal so a linear function of means is also normally distributed. When a linear function of means is divided by its standard error the ratio follows a *t*-distribution with degrees of freedom associated with the variance estimate. Hence, we can use the *t*-distribution to construct a confidence interval around any linear function of means. If this confidence interval contains a specified δ, then the true difference is less than δ (H_0 above); if δ is not contained in this interval then the true difference is greater than δ (H_A above), and the conclusion is inequivalence within δ units.

Equality of the reference areas was graphically evaluated using box plots and summary statistics. Validity of the normality and equal variance assumptions were tested using Shapiro-Wilk's test for normality on the area residuals (α=0.05) and Levene's test for equality of variances among the three areas (α =0.05).

2.3 Core Collection and Processing

Seven cores were collected from the FVP mound on 28 June 2005 for assessment of contaminants, total organic carbon (TOC), and grain size in the top 20-40 cm of sediment (Figure 2-2). Of the seven cores, five were box cores (On-Mound Stations B-03, B-04, and B-05; Flank Stations B-06 and B-07), and two were gravity cores (C-01 and C-02). Immediately following collection, subsamples were taken from the box cores at 5-cm intervals for later geochemical analyses. Five box cores were collected at the reference site (CLIS-REF); two (R-01 and R-02) were subjected to the same chemical analyses as the FVP location cores. The two longer FVP mound gravity cores were collected near the center of the mound and transported to the University of Rhode Island (URI) core lab for splitting, describing, logging, and sampling for a more complete record of the FVP mound stratigraphy. Twenty-eight samples were collected from the box cores, and eight samples were collected from the gravity cores, for a total of 36 sediment samples submitted to the laboratory (Table 2-1).

Gravity cores were processed by splitting into two sections along the vertical axis of each core. One half of the core was visually observed and logged and subsampled for geochemical analyses. The other half of the core was analyzed using the URI core logger; data from the core logger included photography and bulk density. Core descriptions and sampling log are provided in Appendix B.

2.4 Sediment Chemistry and Physical Properties

The FVP area samples were analyzed for a suite of chemicals of concern (USEPA/USACE 2004), including: PAHs, PCB congeners, and metals including both iron (Fe) and aluminum (Al), both typically used for metals normalization (Table 2-2). Total organic carbon (TOC) also was measured and reported. All chemistry samples were analyzed by Mitkem Corp. (Warwick, RI) using standard SW-846 methods (USEPA 1986), as summarized in Table 2-2.

Geo/Plan Associates of Hingham, MA, measured the water content and grain size distribution of the sediment samples. Sand fractions were measured using the sieve method (ASTM D422; ASTM 2002), and silt and clay were measured using the pipette method of Folk (1974).

Table 2-1.

Samples Submitted for Chemical and Physical Analyses

Station	Sample	Date	Time	Type	Interval (cm)
B-03	B-03A	28 June 2005	10:32	Box	0-5
	B-03B	28 June 2005	10:32	Box	5-10
	B-03C	28 June 2005	10:32	Box	10-15
	B-03D	28 June 2005	10:32	Box	15-20
B-04	B-04A	28 June 2005	11:16	Box	0-5
	B-04B	28 June 2005	11:16	Box	5-10
	B-04C	28 June 2005	11:16	Box	10-15
	B-04D	28 June 2005	11:16	Box	15-20
B-05	B-05A	28 June 2005	12:11	Box	0-5
	B-05B	28 June 2005	12:11	Box	5-10
	B-05C	28 June 2005	12:11	Box	10-15
	B-05D	28 June 2005	12:11	Box	15-20
B-06	B-06A	28 June 2005	12:53	Box	0-5
	B-06B	28 June 2005	12:53	Box	5-10
	B-06C	28 June 2005	12:53	Box	10-15
	B-06D	28 June 2005	12:53	Box	15-20
B-07	B-07A	28 June 2005	13:36	Box	0-5
	B-07B	28 June 2005	13:36	Box	5-10
	B-07C	28 June 2005	13:36	Box	10-15
	B-07D	28 June 2005	13:36	Box	15-20
C-01	C-01A	29 June 2005	17:15	Gravity	0-14
	C-01B	29 June 2005	17:15	Gravity	14-23
	C-01C	29 June 2005	17:20	Gravity	23-32
	C-01D	29 June 2005	17:25	Gravity	32-53
C-02	C-02A	29 June 2005	18:15	Gravity	0-14
	C-02B	29 June 2005	18:20	Gravity	14-22
	C-02C	29 June 2005	18:25	Gravity	22-30
	C-02D	29 June 2005	18:30	Gravity	30-45
R-01	R-01A	28 June 2005	14:22	Box-Ref	0-5
	R-01B	28 June 2005	14:22	Box-Ref	5-10
	R-01C	28 June 2005	14:22	Box-Ref	10-15
	R-01D	28 June 2005	14:22	Box-Ref	15-20
R-02	R-02A	28 June 2005	15:06	Box-Ref	0-5
	R-02B	28 June 2005	15:06	Box-Ref	5-10
	R-02C	28 June 2005	15:06	Box-Ref	10-15
	R-02D	28 June 2005	15:06	Box-Ref	15-20

Table 2-2.

Chemical and Physical Methods

Analyte Group	Parameter Name	Preparatory/ Extraction Method	Analytical Method	Reporting Limit	Method Detection Limit
Conventionals					
	Total Organic Carbon (ppm)	E415.1	E415.1	100	10
	Grain Size (%)	Coarse (sieve) - ASTM D422 (2002); fines (pipette) - Folk (1974)		NA	NA
Metals (ppm)					
	Aluminum	3050B	SW6010B	7.7 - 11	0.26 - 0.38
	Arsenic	3050B	SW6010B	0.77 - 1.1	0.058 - 0.084
	Beryllium	3050B	SW6010B	0.19 - 0.28	0.0047 - 0.0068
	Cadmium	3050B	SW6010B	0.19 - 0.28	0.0042 - 0.0061
	Chromium	3050B	SW6010B	0.77 - 1.1	0.011 - 0.016
	Copper	3050B	SW6010B	1.2 - 7.3	0.16 - 1
	Iron	3050B	SW6010B	9.5 - 53	0.83 - 4.6
	Lead	3050B	SW6010B	0.38 - 0.55	0.031 - 0.045
	Mercury	NA	SW7471A	0.024 - 0.078	0.0051 - 0.017
	Nickel	3050B	SW6010B	1.9 - 2.8	0.02 - 0.029
	Selenium	3050B	SW6010B	1.2 - 1.7	0.051 - 0.074
	Silver	3050B	SW6010B	1.2 - 1.7	0.015 - 0.021
	Zinc	3050B	SW6010B	1.9 - 2.8	0.043 - 0.062
PAHs (ppb)		3550B	SIM	5.8 - 9.2	NA
PCBs (ppm)		3550B	SW8082	.0018 - .0041	NA

[1]From Regional Implementation Manual, USEPA/USACE 2004.

Cores were logged in a GEOTEK Multi-Sensor Core Logger (MSCL) by technicians at the URI. The MSCL (www.geotek.co.uk) measures a suite of physical parameters along the length of the core. Sensors used on the FVP area cores included the natural gamma sensor for measurement of bulk density, a magnetic susceptibility meter, a p-wave sensor that measures the speed of sound (p-wave) in the sediment, and a line scan camera that collects full-length core images. The primary data used for evaluations in this project were the bulk density and sediment image data.

3.0 RESULTS

Results are presented for SPI analyses (Section 3.1), sediment chemistry (Section 3.2), and core log data (Section 3.3) for the 2005 survey. These results are interpreted and integrated in the Discussion (Section 4.0).

3.1 Sediment-Profile Imaging

The SPI survey sampling design was structured to assess the recolonization status and benthic habitat characteristics of representative areas within the disposal site including 1) the on-mound stations, located on the bathymetrically-detectable mound (Figure 2-1), 2) the flank stations, located in the adjacent area on the historical dredged material flank, and 3) the CLIS-REF reference site. A complete set of all SPI results can be found in Appendix C.

3.1.1 Physical Sediment Characteristics

Surface sediments throughout the disposal site and at the reference station were primarily fine-grained silt/clays (major mode $\geq 4\ \Phi$; Table 3-1). Four on-mound stations and one flank station had evidence of fine to very fine sand layers at the sediment surface and at depth (Table 3-1; Figure 3-1). Prism penetration was fairly uniform (Table 3-1), ranging from 11.2 to 17.3 cm at FVP stations (Figure 3-2) and from 14.1 to 15.7 cm at the reference stations (Figure 3-3). Camera stop collar settings and weights were kept constant throughout the survey (Appendix C), so the slight variation in penetration depth is an accurate reflection of small-scale changes in sediment geotechnical properties at the various stations surveyed.

Small-scale boundary roughness was similar at FVP and reference stations, ranging from 0.4 to 1.1 cm at the FVP stations and 0.4 to 1.0 cm at the reference stations (Table 3-1). The small-scale roughness elements were primarily due to biogenic structures (mounds, feeding pits, burrow openings, etc.) at the sediment-water interface (Figure 3-4). There was no evidence of subsurface methane or low dissolved oxygen conditions in the overlying water at any of the stations sampled (Appendix C).

3.1.2 Biological Conditions and Benthic Recolonization

The mean aRPD values at the on-mound stations ranged from 1.8 to 2.7 cm, with an overall average of 2.2 cm. Values on the flank stations ranged from 2.1 to 3.2 cm,

Table 3-1.

Summary of SPI Parameters

Station	Station Average Penetration	Grain Size Major Mode (Φ)	Station Average Boundary Roughness (cm)	Station Average aRPD (cm)	Station Average Max Void Depth (cm)	Highest Successional Stage Present	Methane Present?
REFERENCE Stations							
R-01	14.43	>4	0.39	4.02	12.93	Stage 1 on 3	NO
R-02	14.63	>4	0.99	3.92	12.13	Stage 1 on 3	NO
R-03	15.72	>4	0.86	4.22	14.48	Stage 1 on 3	NO
R-04	14.27	>4	0.79	4.26	12.46	Stage 1 on 3	NO
R-05	14.06	>4	0.94	4.03	10.87	Stage 1 on 3	NO
Average	14.62		0.79	4.09	12.58		
Minimum	14.06		0.39	3.92	10.87		
Maximum	15.72		0.99	4.26	14.48		
"FLANK" Stations							
SOF-01	15.91	>4	0.66	3.11	15.00	Stage 1 on 3	NO
SOF-02	14.60	>4	0.82	2.74	12.42	Stage 1 on 3	NO
SOF-03	17.28	>4	0.45	2.56	16.06	Stage 1 on 3	NO
SOF-04	14.82	>4	0.80	3.00	12.00	Stage 1 on 3	NO
SOF-05	15.37	>4	0.38	2.61	12.38	Stage 1 on 3	NO
SOF-06	14.81	>4	0.38	2.85	12.78	Stage 1 on 3	NO
SOF-07	15.70	3-2/>4	0.78	2.59	13.98	Stage 1 on 3	NO
SOF-08	15.78	>4	1.09	2.05	13.96	Stage 1 on 3	NO
SOF-09	15.67	>4	0.50	3.17	14.26	Stage 1 on 3	NO
SOF-10	17.04	>4	0.66	2.42	13.52	Stage 1 on 3	NO
Average	15.70		0.65	2.71	13.63		
Minimum	14.60		0.38	2.05	12.00		
Maximum	17.28		1.09	3.17	16.06		
"ON MOUND" Stations							
SON-01	13.82	>4	0.60	2.02	6.94	Stage 1 on 3	NO
SON-02	11.21	4-3	0.80	2.68	10.31	Stage 1 on 3	NO
SON-03	15.09	4-3/>4/4-3	0.62	1.75	9.07	Stage 1 on 3	NO
SON-04	15.48	4-3	0.66	1.97	10.80	Stage 1 on 3	NO
SON-05	15.45	>4	0.90	2.23	9.85	Stage 1 on 3	NO
SON-06	14.28	>4/4-3	0.76	2.23	9.56	Stage 1 on 3	NO
SON-07	15.53	>4	0.55	2.70	9.35	Stage 1 on 3	NO
SON-08	14.39	>4	0.49	2.30	9.14	Stage 1 on 3	NO
SON-09	15.05	>4	0.63	2.04	11.24	Stage 1 on 3	NO
SON-10	16.09	>4	0.80	2.21	14.80	Stage 1 on 3	NO
Average	14.64		0.68	2.21	10.11		
Minimum	11.21		0.49	1.75	6.94		
Maximum	16.09		0.90	2.70	14.80		

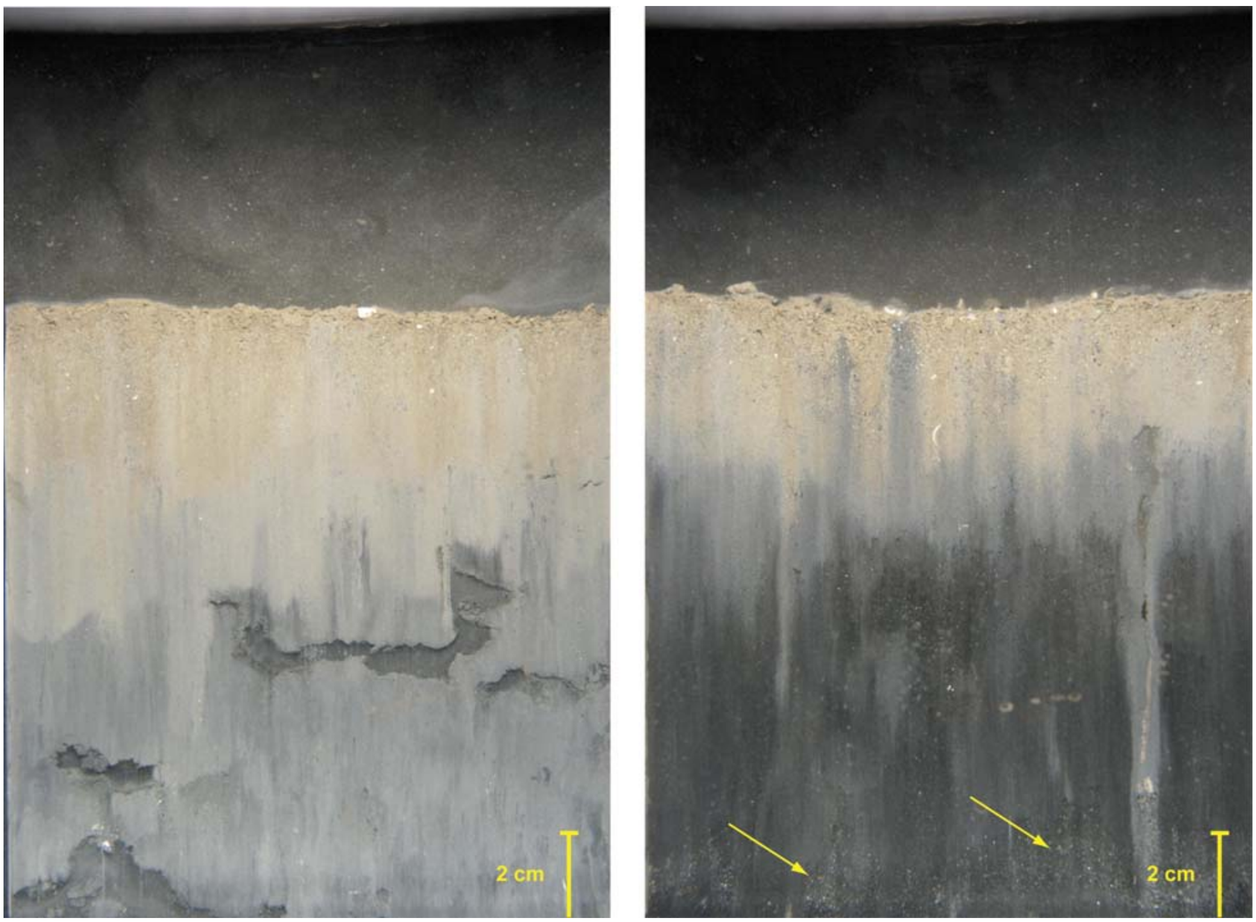

Figure 3-1. While most of the sediments at the stations on the FVP mound and reference area were silt/clays as shown in this profile image from Station SOF-O1 (left panel), a few stations had fine sand layers at the sediment surface and sometimes at depth (arrows) as seen in this profile image from Station SON-O3 (right panel).

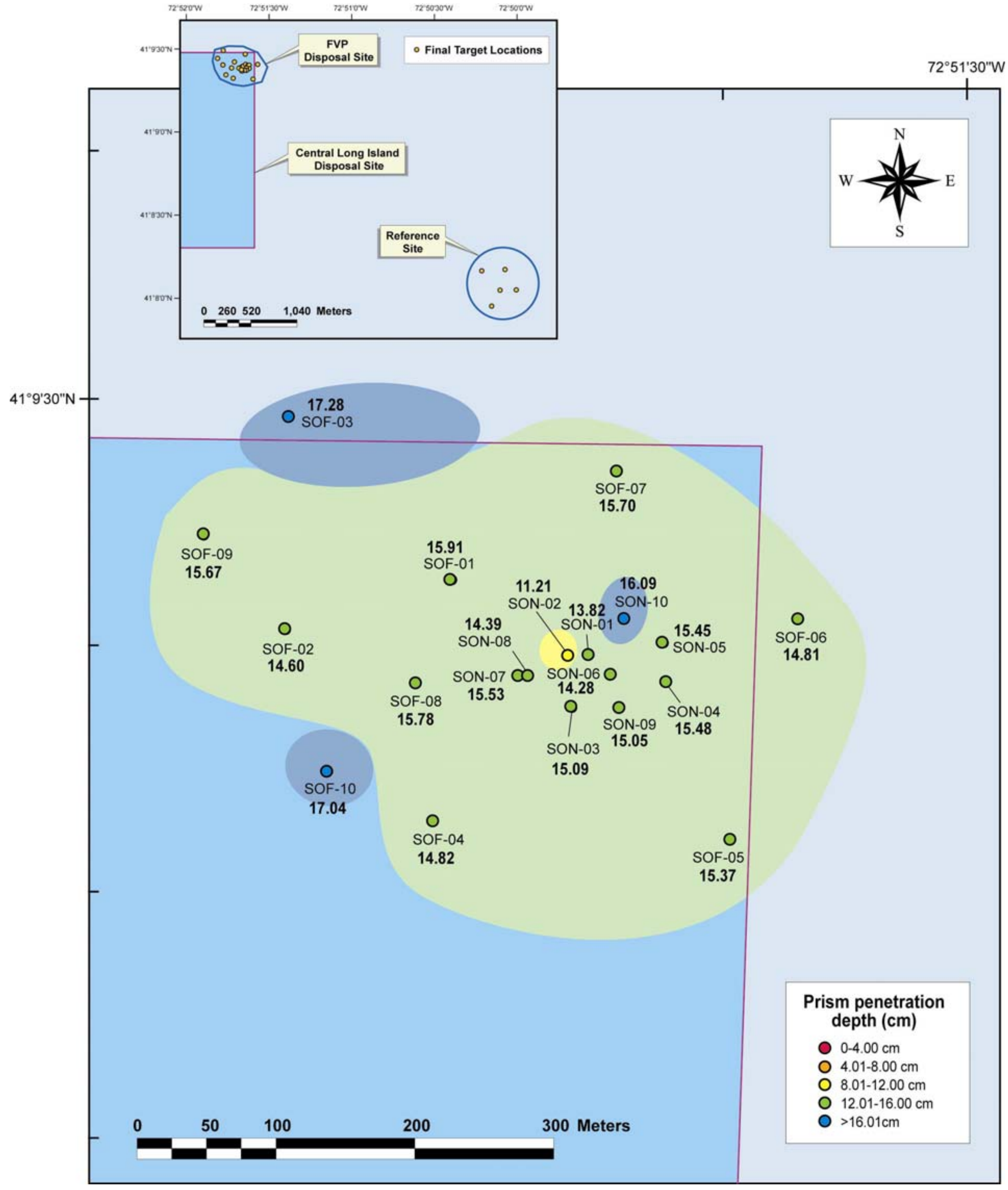

Figure 3-2. Spatial distribution of camera prism penetration depth (cm) at FVP stations sampled in June 2005.

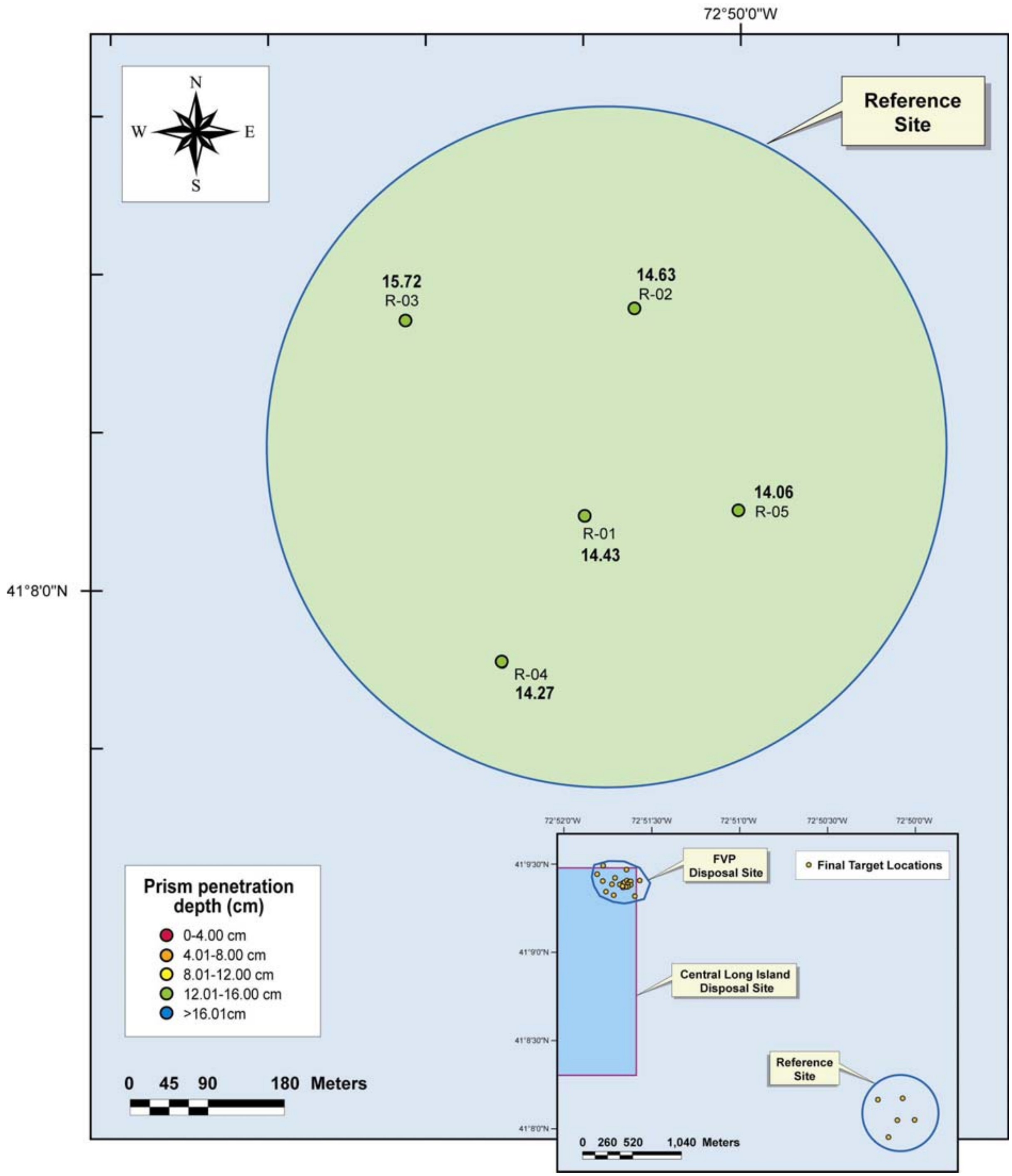

Figure 3-3. Spatial distribution of camera prism penetration depth (cm) at CLDS reference stations sampled in June 2005.

Figure 3-4. Most of the small-scale surface roughness elements measured at the majority of stations were due to biogenic structures such as the one shown in this sediment profile image from Station R-05.

with an overall average of 2.7 cm, and those at the reference site ranged from 3.9 to 4.3 cm, with an overall average of 4.1 cm (Table 3-1; Figures 3-5, 3-6).

To estimate background variability in mean aRPD values on the ambient (surrounding) seafloor so that bioequivalence testing could be performed, reference station data from CLDS collected in 2004 and 2005 were examined (Table 3-2). Variation in mean aRPD depths on the ambient seafloor ranged from 0.3 to 2.3 cm at CLIS-REF (2005 data from this survey, 2004 data from ENSR [2005]), and from 2.0 to 3.5 cm at the other reference stations in CLDS in 2004 (ENSR 2005). Because variation in mean aRPD depth was less in 2005 than in 2004, we chose a delta (or "expected difference") of one cm for stations on the ambient seafloor. The box plot of mean aRPD depths shows that there is an apparent difference among the on-mound, flank, and reference locations (Figure 3-7), and the bioequivalence test confirmed this to be the case.

The data were normally distributed (Shapiro-Wilk's test on the residuals had a p-value of 0.53) and variances were equal within each group (Levene's test p-value was 0.36). The bioequivalence test used a Normal Theory confidence interval and a pooled variance estimate (the residual standard error from an ANOVA had a value of 0.296).

The confidence interval for the difference in means between on-mound and reference was [1.6, 2.2]. This interval does not include delta (of 1) so we concluded that they were inequivalent based on the one-cm difference. The confidence interval for the difference in means between flank and reference was [1.1, 1.7], again leading to the conclusion that the mean aRPD from on-mound and flank stations were inequivalent to those values found on the ambient seafloor based on the expected delta of one cm.

Even though there has been no additional disposal of dredged material since the original placement operations in May 1983, it is notable that the signature of historical disposal is still quite evident in the cross-sectional image profile. There is a marked change in the reflectance of the subsurface mud under the oxidized surface layer. Generally the dark color corresponds to the organic content of the sediment (the higher the organic content, the darker the reduced sediment appears to the eye). As the TOC content does not show a consistent decrease with depth in the cores (Section 3.2.1), the dark color may also be due to increased sulfide content (Bull and Williamson 2001). The gradation in reflectance of the subsurface mud was quite dramatic from on the mound to the flank and finally to the reference site (Figure 3-8).

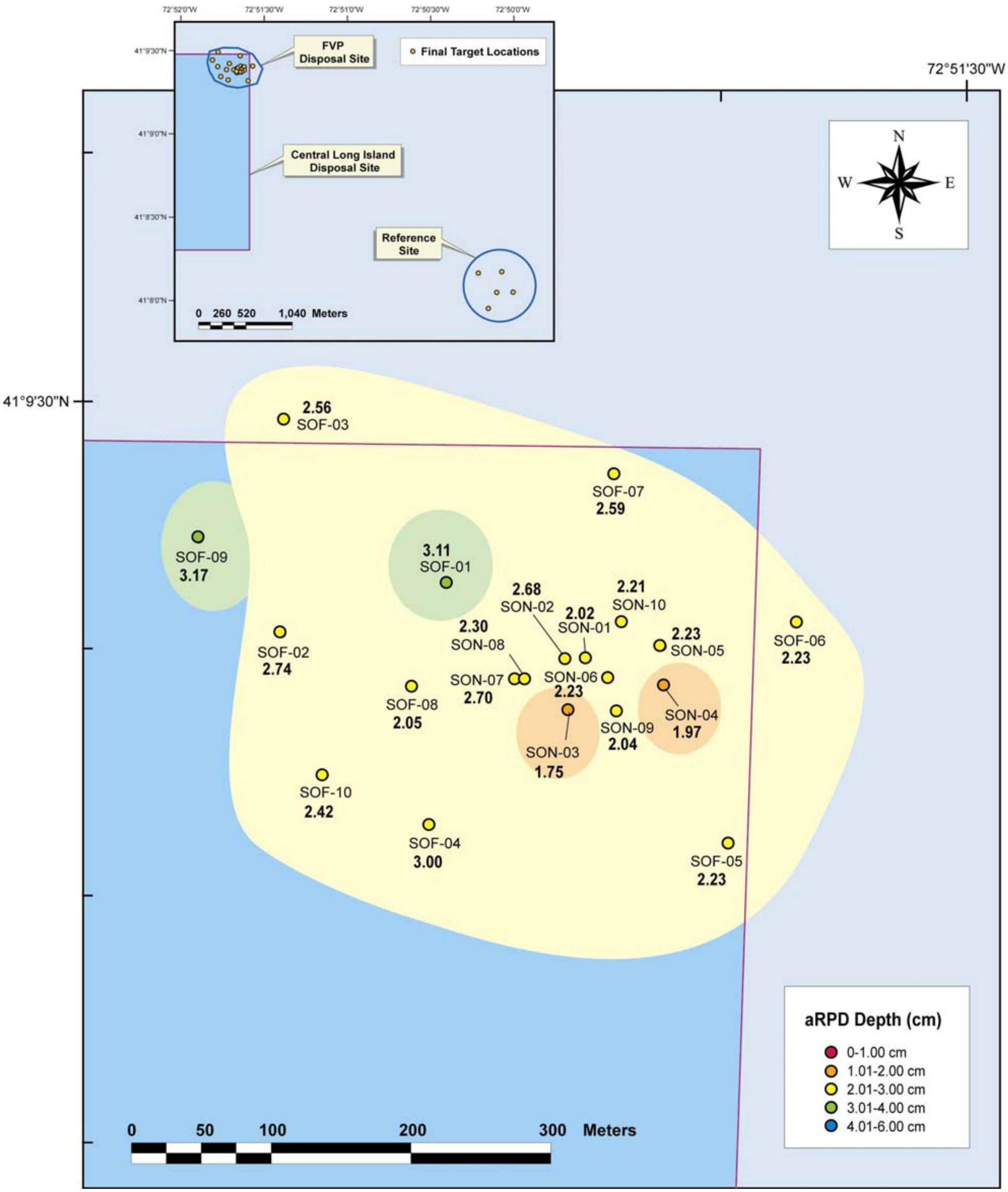

Figure 3-5. Spatial distribution of mean apparent RPD depth (cm) at FVP stations sampled in June 2005.

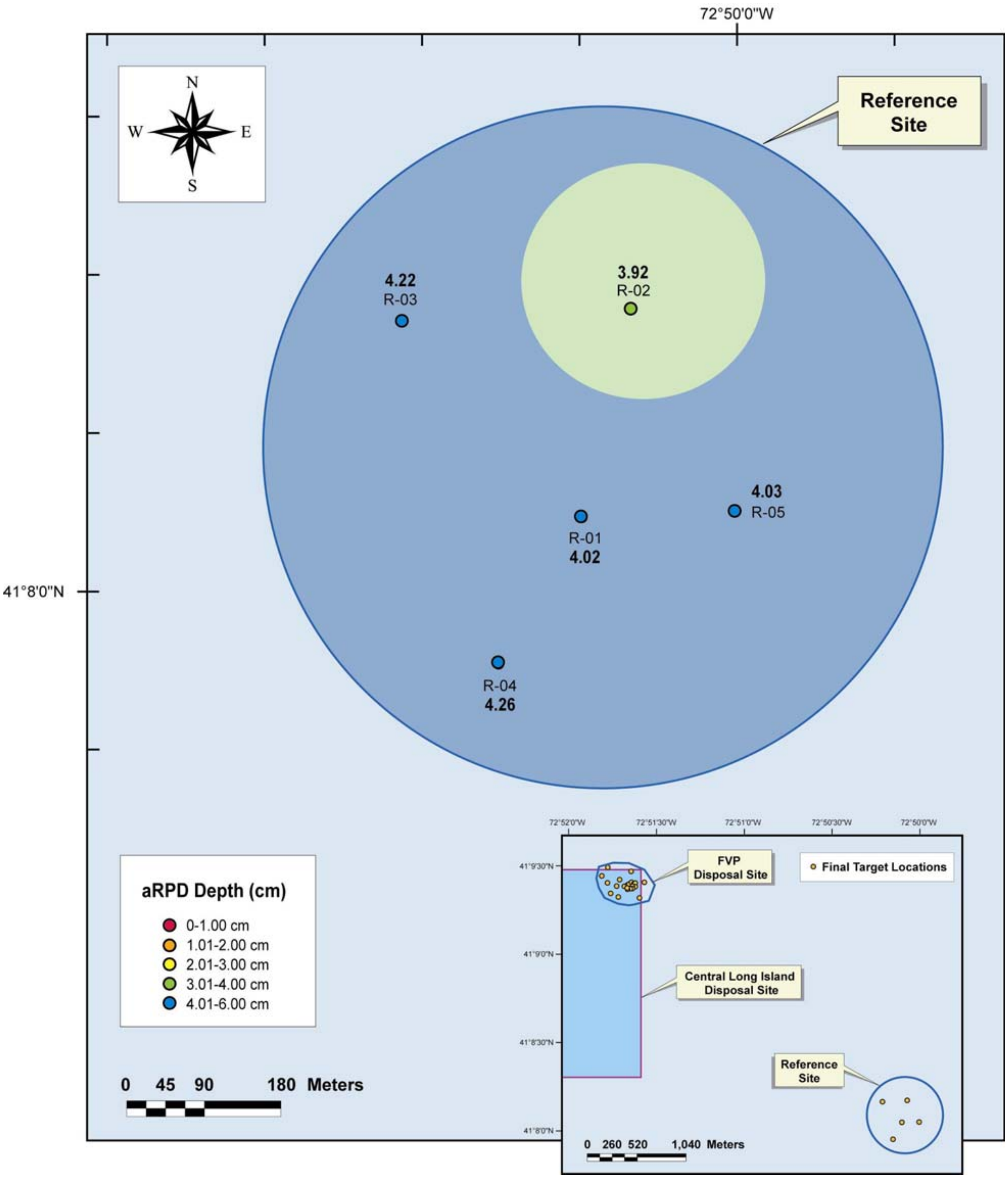

Figure 3-6. Spatial distribution of mean apparent RPD depth (cm) at CLDS reference stations sampled in June 2005.

Table 3-2.
Historical SPI Reference Data Compared with SPI Reference Data from this Study

2004[1]				2005[2]			
Station	**Rep**	**RPD (cm)**	**Station**	**Station**	**Rep**	**RPD (cm)**	**Station Mean**
CLIS Ref 1	A	5.57		R-01	A	3.96	
CLIS Ref 1	B	5.18		R-01	B	3.58	
CLIS Ref 1	C	5.11	5.28	R-01	E	4.52	4.02
CLIS Ref 2	A	5.41		R-02	A	3.19	
CLIS Ref 2	B	5.63		R-02	B	4.57	
CLIS Ref 2	C	5.98	5.67	R-02	C	4.00	3.92
CLIS Ref 3	A	6.49		R-03	A	4.07	
CLIS Ref 3	B	5.39		R-03	B	4.22	
CLIS Ref 3	C	4.85	5.58	R-03	C	4.36	4.22
CLIS Ref 4	A	5.00		R-04	A	4.86	
CLIS Ref 4	E	5.40		R-04	B	3.83	
CLIS Ref 4	F	5.39	5.26	R-04	D	4.10	4.26
CLIS Ref 5	A	4.16		R-05	A	4.03	
CLIS Ref 5	B	5.80		R-05	B	3.92	
CLIS Ref 5	C	4.32	4.76	R-05	C	4.12	4.03
Minimum		**4.16**	**4.76**	**Minimum**		**3.19**	**3.92**
Maximum		**6.49**	**5.67**	**Maximum**		**4.86**	**4.26**
Delta		**2.33**	**0.91**	**Delta**		**1.67**	**0.34**
2500W 01	A	2.16					
2500W 01	B	2.93					
2500W 01	C	2.63	2.57				
2500W 02	A	3.21					
2500W 02	B	2.25					
2500W 02	C	2.50	2.66				
2500W 03	A	3.57					
2500W 03	B	1.85					
2500W 03	C	2.95	2.79				
2500W 04	A	3.09					
2500W 04	C	2.26					
2500W 04	D	3.89	3.08				
2500W 05	A	3.77					
2500W 05	C	3.28					
2500W 05	D	4.19	3.75				
4500E 01	A	4.59					
4500E 01	B	3.79					
4500E 01	C	4.69	4.36				
4500E 02	A	3.02					
4500E 02	B	5.34					
4500E 02	C	Indeterminate	4.18				
4500E 03	A	4.51					
4500E 03	B	4.53					
4500E 03	C	4.80	4.61				
4500E 04	A	4.12					
4500E 04	B	3.49					
4500E 04	C	3.79	3.80				
4500E 05	A	3.69					
4500E 05	B	3.95					
4500E 05	C	3.30	3.65				
Minimum		**1.85**	**2.57**				
Maximum		**5.34**	**4.61**				
Delta		**3.49**	**2.04**				

[1]ENSR 2005

[2]Reference is equivalent to CLIS Ref

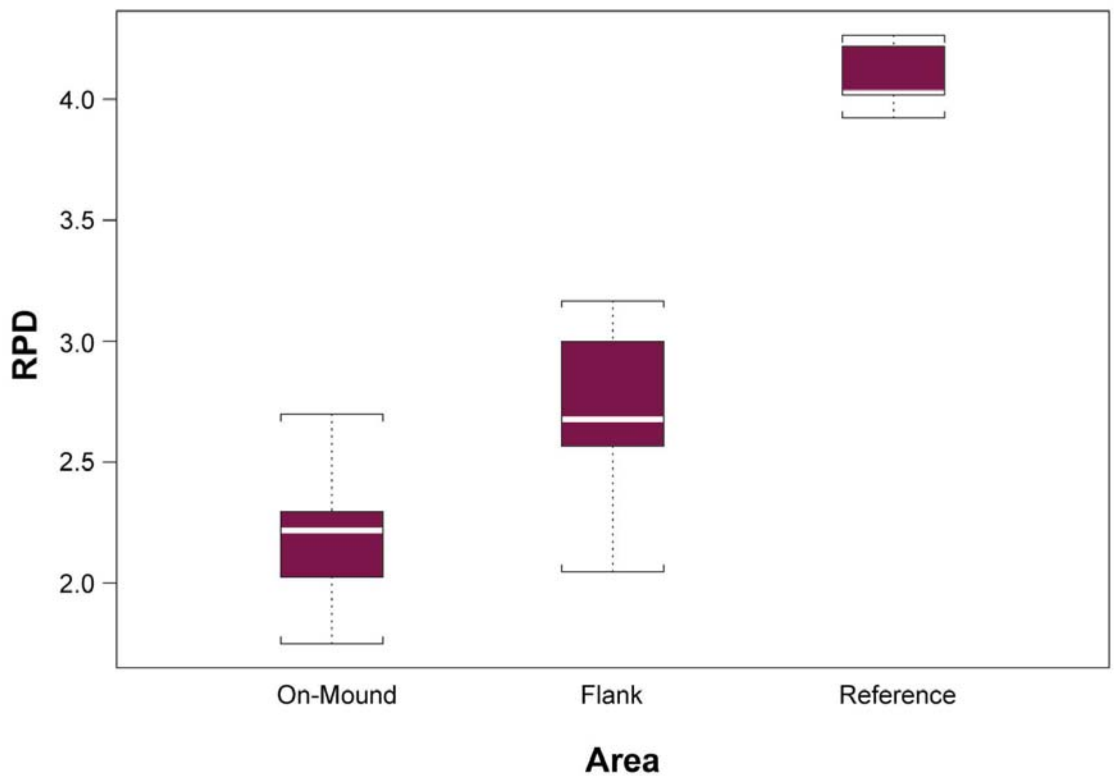

Figure 3-7. Boxplot of average station mean apparent RPD depths from the FVP areas sampled in June 2005.

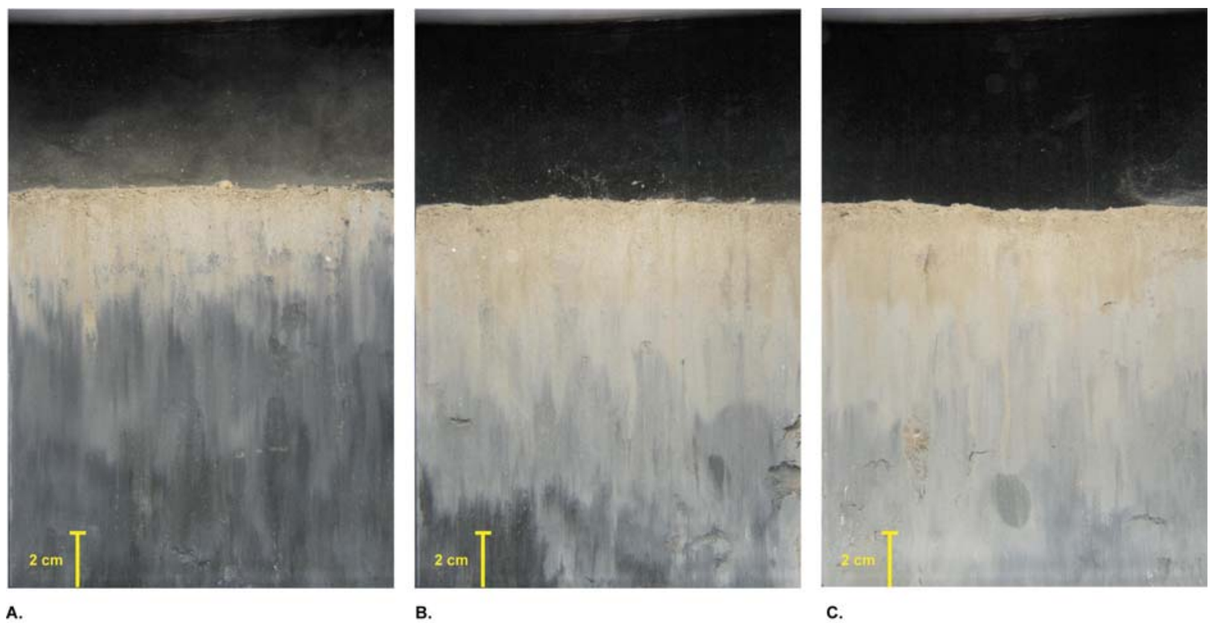

Figure 3-8. These profile images show the dramatic presence, lingering trace, and absence of historical dredged material (black subsurface mud) in a transect from the mound (A: Station SON-01) onto the historical flank (B: Station SOF-06) and finally to the reference station (C: Station R-01).

Evidence of mature, Stage III fauna (Rhoads and Germano 1982) was found at every station surveyed (Figures 3-9, 3-10); this was expected based on results of previous monitoring surveys (e.g., ENSR, 2005; SAIC 2002). Subsurface feeding voids, burrows, and evidence of particle transport by “conveyor belt” taxa (*sensu* Rhoads 1974) were apparent in one or more replicate images from on-mound, flank, and reference stations (Figure 3-11). The maximum depth in the sediment profile at which feeding voids or burrows were found (Figure 3-12) was similar in all areas surveyed, and typical of ambient LIS sediments (Table 3-1; Figures 3-13, 3-14).

3.2 Sediment Chemistry Results

Sediment chemistry results discussed below report the average of laboratory replicate analyses that are individually reported in Appendix D. Total PAHs and PCBs were calculated from the raw data; results reported as below detection were included in the sum at one-half the reporting limit. Several of the replicates had PAH and PCB concentrations that exceeded the calibration run and were qualified with an ***E*** (Appendix D). These ***E***-coded replicates were excluded from summary calculations because they were judged to be less accurate than the reanalysis replicates. A QA/QC review was conducted and all of the chemistry data were considered of sufficient quality for the objectives of the FVP.

Chemistry results in this section were summarized based on samples collected at the FVP site as compared to reference. In the Discussion (Section 4.2), the differences between on-mound and flank data, as well as the distribution of chemicals with depth, are discussed. In the following sections, samples are referred by their letter category representing depth in the sediment. The sampling scheme in the box cores were all the same, with the “A” sample the top-most sample (0-5 cm), and the B, C, and D samples from 5-10, 10-15, and 15-20 cm, respectively. The gravity cores had different sampling depths as described in Table 2-1.

3.2.1 Conventional Parameters

Total organic carbon ranged from 1.1 to 2.4%, with little change with depth in most of the cores (Table 3-3). Most measurements were within the range of those at reference stations (1.4 – 1.8%) excluding the C and D samples from B-07, and the A and D samples from C-01 and C-02. The maximum TOC value was measured in the D samples of the gravity cores (2.3 – 2.4%), a deep remnant of the high-organic material from Black Rock Harbor.

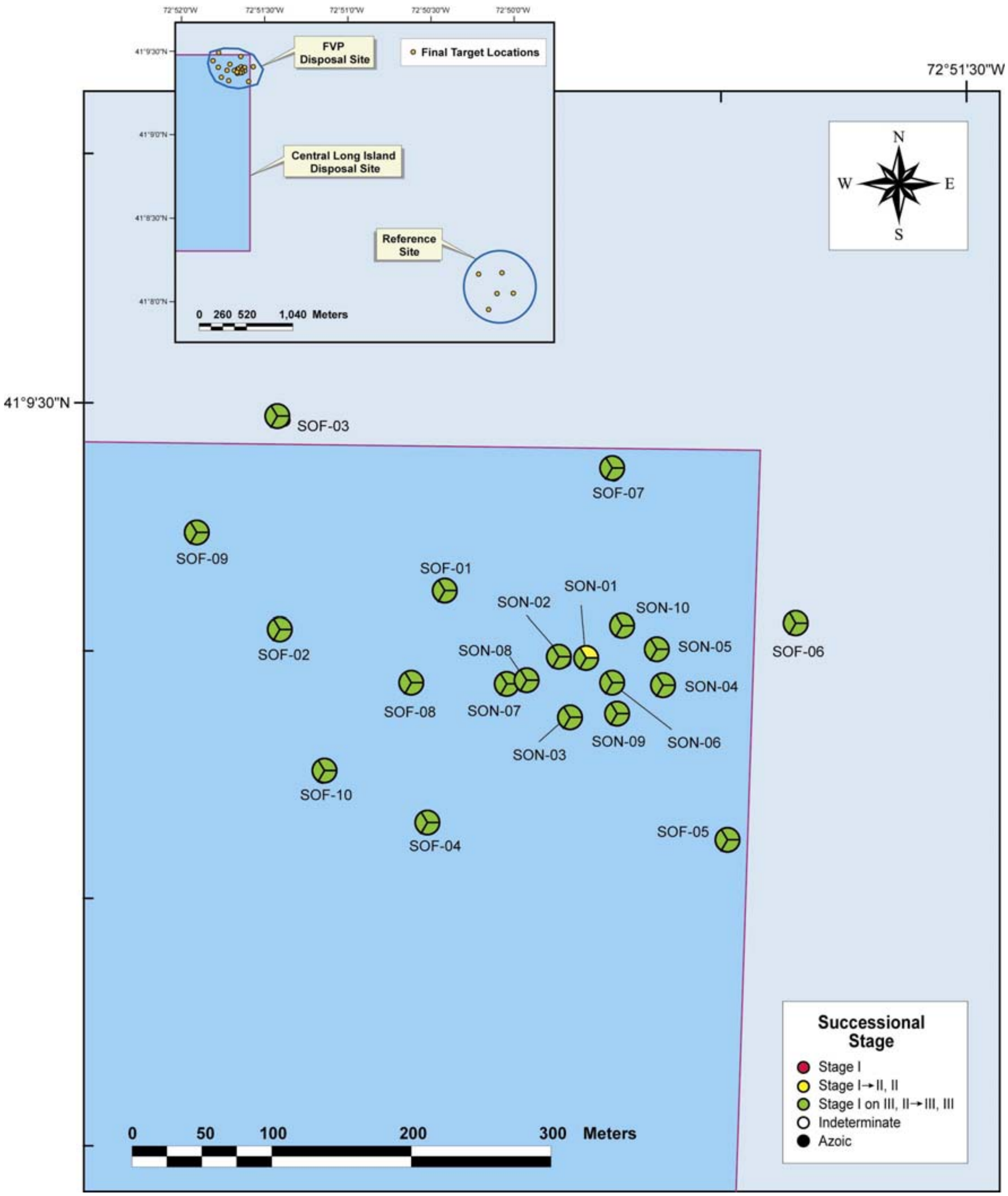

Figure 3-9. Spatial distribution of infaunal successional stage at FVP stations sampled in June 2005. Each pie segment represents the results from one replicate image.

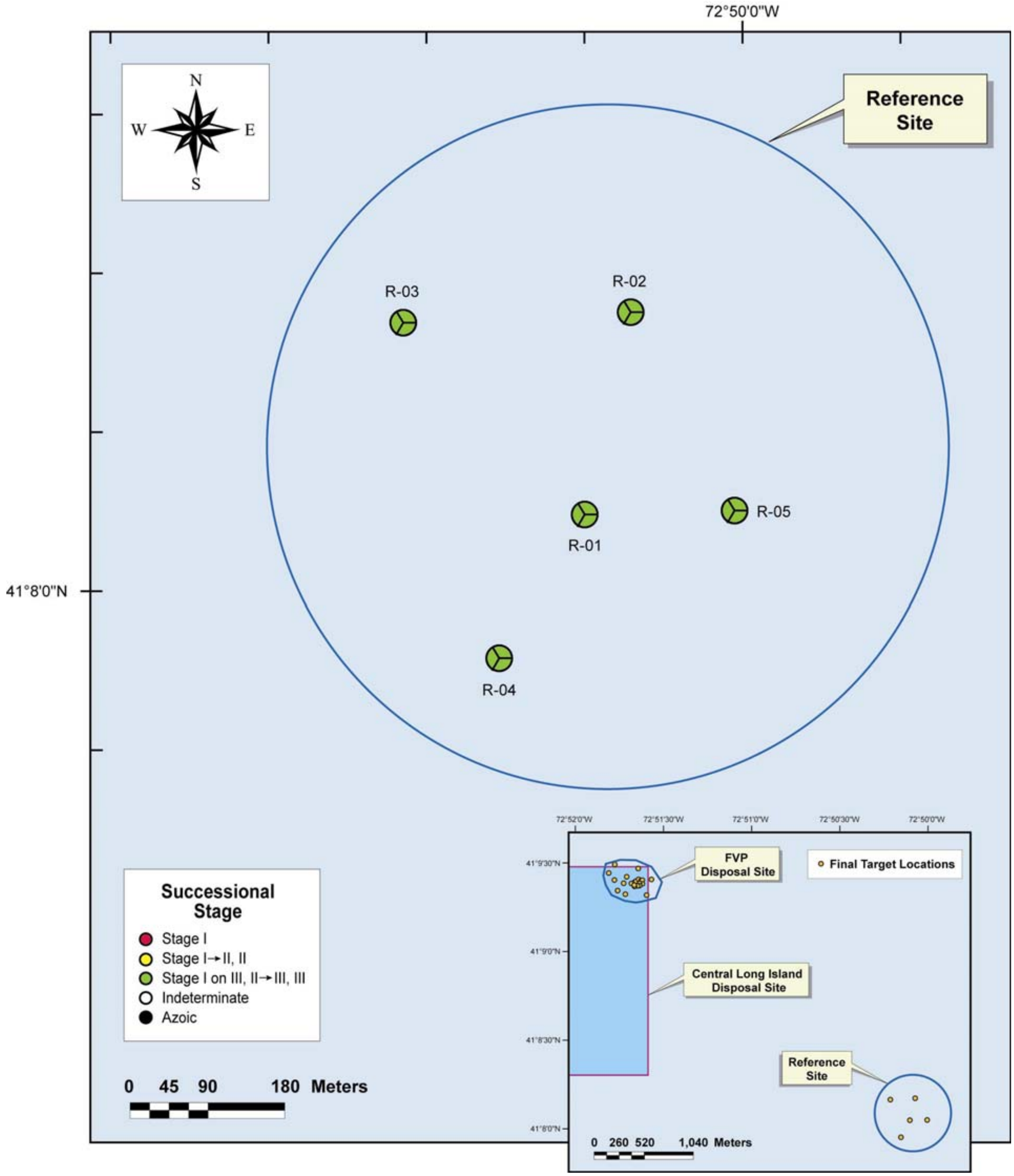

Figure 3-10. Spatial distribution of infaunal successional stage at CLDS reference stations sampled in June 2005. Each pie segment represents the results from one replicate image.

Figure 3-11. The transport of reduced, subsurface particles to the sediment surface via bioturbation is quite evident in these profile images from Station SON-05 (left panel) and Station SOF-07 (right panel).

Figure 3-12. This profile image from Station SOF-09 shows both active burrows and a deep feeding void from the activities of infaunal deposit-feeders.

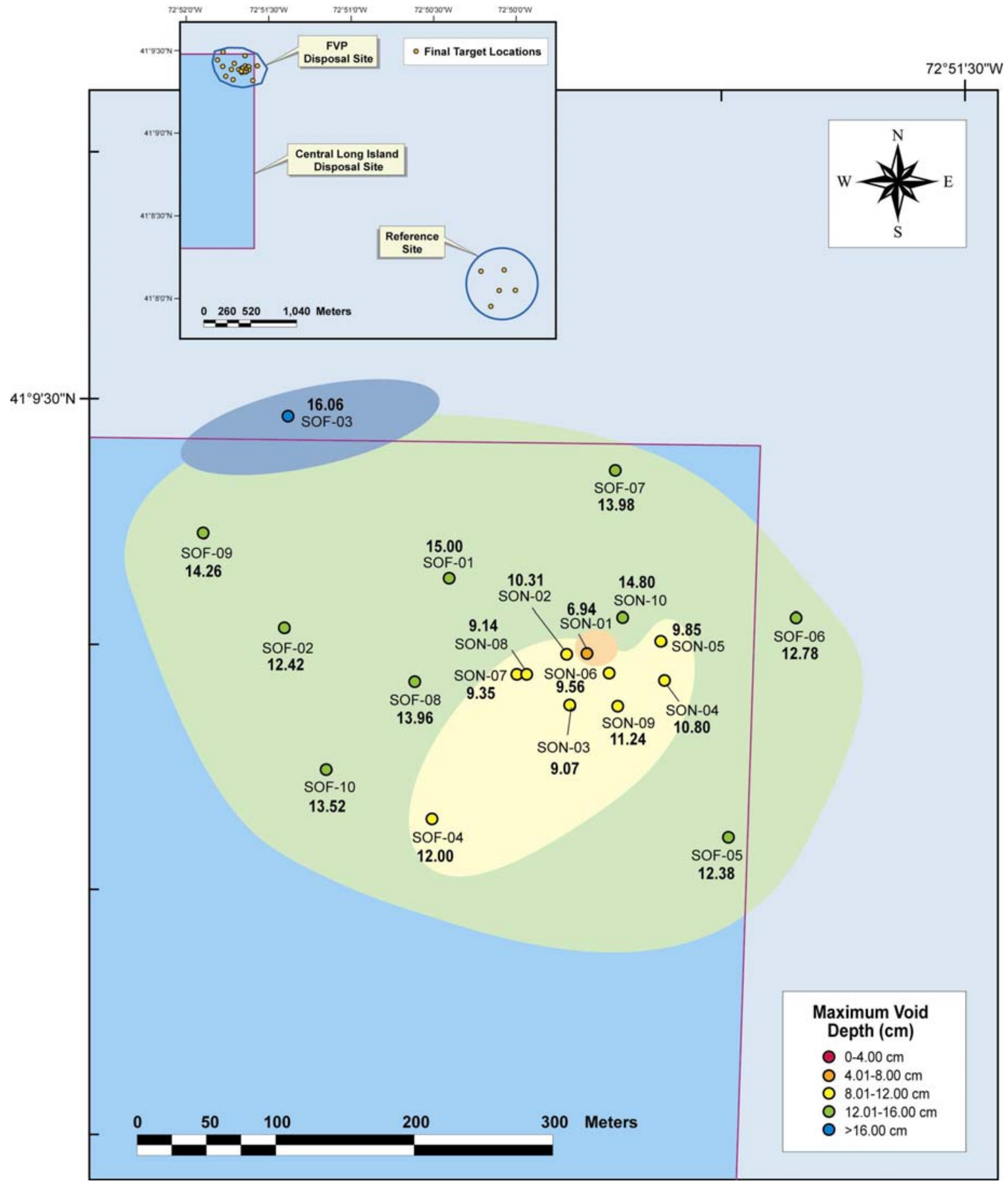

Figure 3-13. Spatial distribution of maximum feeding void depth (cm) at FVP stations sampled in June 2005.

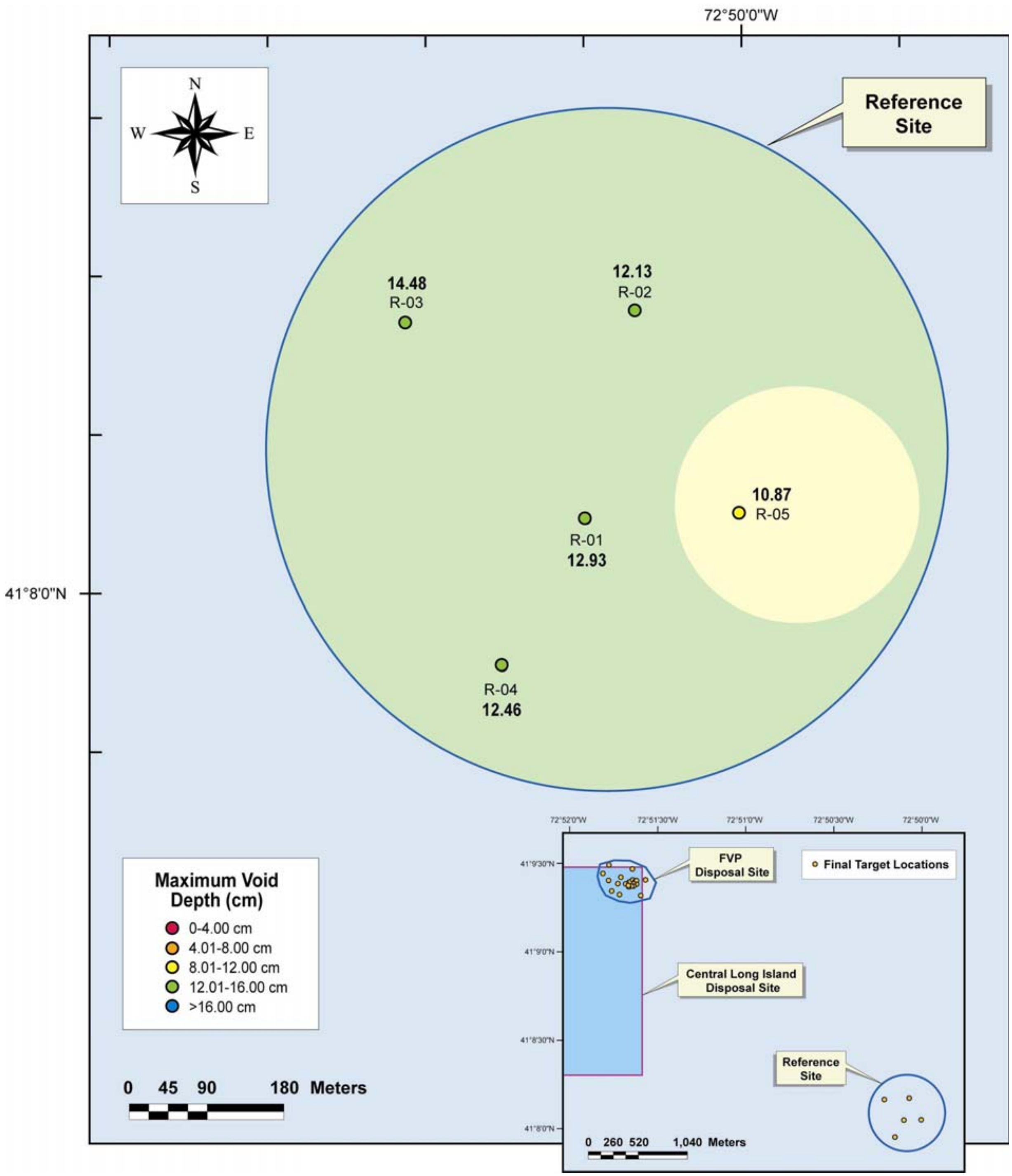

Figure 3-14. Spatial distribution of maximum feeding void depth (cm) at CLDS reference stations sampled in June 2005.

Table 3-3.

Sediment Chemistry: Conventional Results (%)

Station	Interval[1]	TOC[2]	Water Content	Gravel	Sand	Silt	Clay	Fines
B-03	A	1.5	142.12	0.2	19.7	52.0	28.1	80.1
B-03	B	1.7	91.45	0.6	32.2	43.1	24.2	67.3
B-03	C	1.4	76.28	1.1	46.9	33.5	18.5	52
B-03	D	1.7	86.94	1.4	51.2	29.4	18.0	47.4
B-04	A	1.4	144.96	0.0	12.1	56.9	30.9	87.9
B-04	B	1.3	119.14	0.2	22.6	49.1	28.1	77.2
B-04	C	1.1	75.37	1.1	49.4	31.4	18.0	49.5
B-04	D	1.7	67.91	0.9	63.7	21.9	13.5	35.4
B-05	A	1.5	147.55	0.4	8.9	56.3	34.4	90.8
B-05	B	1.4	117.94	2.8	17.1	49.9	30.2	80.1
B-05	C	1.3	74.04	4.9	40.6	34.8	19.6	54.4
B-05	D	1.4	62.55	29.9	40.2	17.5	12.5	30
B-06	A	1.5	139.52	1.0	22.3	50.4	26.4	76.7
B-06	B	1.3	111.62	0.5	14.0	56.3	29.2	85.5
B-06	C	1.5	103.31	1.6	15.4	55.5	27.5	83
B-06	D	1.3	108.79	0.6	13.3	58.1	28.0	86.1
B-07	A	1.7	151.44	0.9	11.6	54.5	33.0	87.5
B-07	B	1.8	131.05	1.2	13.8	55.9	29.2	85
B-07	C	1.9	116.99	0.1	11.9	49.8	38.1	87.9
B-07	D	2.1	115.75	0.7	13.6	47.9	37.8	85.7
C-01	A	1.9	89.43	3.7	43.4	24.4	28.5	52.9
C-01	B	1.5	88.67	1.3	26.0	39.0	33.8	72.8
C-01	C	1.5	87.54	0.2	23.8	42.9	33.1	76
C-01	D	2.4	81.54	3.0	42.2	26.9	27.8	54.7
C-02	A	1.9	86.99	9.3	45.1	23.0	22.6	45.6
C-02	B	1.7	87.28	1.7	36.1	34.4	27.8	62.2
C-02	C	1.6	78.62	0.7	36.7	36.9	25.7	62.6
C-02	D	2.3	96.91	6.4	43.0	30.2	20.4	50.6
R-01	A	1.5	135.64	0.0	11.8	57.3	31.0	88.2
R-01	B	1.4	123.55	0.2	11.9	56.3	31.6	87.9
R-01	C	1.5	113.79	1.2	12.3	56.7	29.9	86.6
R-01	D	1.7	108.46	1.1	11.2	58.7	28.9	87.6
R-02	A	1.5	131.80	0.0	11.9	58.7	29.4	88.1
R-02	B	1.6	118.90	0.3	11.4	59.5	28.8	88.3
R-02	C	1.8	106.79	1.0	11.9	58.6	28.6	87.1
R-02	D	1.8	97.46	1.4	10.5	57.9	30.2	88.1

[1]See Table 1-2 for interval depth definitions.

[2]All TOC values qualified as E

Water content in the box cores decreased from the surface (A) sample to the deepest (D) sample, ranging from one reference core A sample (135.64%) to the D sample of B-05 (62.6%; Table 3-3). This pattern was consistent with a consolidation profile in the upper 20 cm down-core, typical in cores from LIS (Moore et al. 2002). In contrast, water content in the gravity cores was more limited in range (79-97%) and did not uniformly decrease down-core (Figure 3-15). As discussed further below, the constancy of water content, as well as discrepancies in the chemical profiles, suggested that some mixing may have occurred in the gravity cores during processing.

Grain size patterns were similar to those of water content, consistent with previous work on LIS sediments that show strong correlations between water content and the fine fraction (Moore et al. 2002). Compared to reference cores, both gravity and box cores from the FVP stations were significantly sandier and had more variable grain size (Figure 3-15; Table 3-3). The fine-grained fraction of all of the reference samples ranged from 86.6 to 88.3%. There was a wide range of fines in the FVP cores (30 to 90.8%), with an average of 68.1 ± 26.3%. One sample from an on-mound box core (B-05D) had a significant gravel content (29.9%), whereas all of the reference core samples contained <2% gravel. Most of the FVP core samples also contained only a small fraction of gravel (<5%), except for two samples (A and D) from the C-02 (gravity) core (Table 3-3).

3.2.2 Metals

Reference sample metal concentrations were consistent among cores and with depth, with one standard deviation from the mean generally varying by <10% except for metals usually found in trace concentrations: mercury (Hg), silver (Ag), and Cadmium (Cd) (Table 3-4). Samples collected from the FVP stations had metals concentrations that ranged from reference values to well outside of reference concentrations. Aluminum (Al) and iron (Fe) concentrations were generally similar or lower (outside of one standard deviation) than reference values; for example, Al ranged from 13,100 to 14,400 mg/kg in the reference sites, and 7,509 to 14,800 mg/kg in FVP core samples. Three metals (arsenic [As], beryllium [Be], and selenium [Se]) had FVP sample concentrations that had a wider distribution than reference, but with no values significantly higher or lower; for example, Se in reference samples ranged from 0.6 to 0.8 mg/kg, while Se in FVP samples ranged from 0.31 to 0.85 mg/kg.

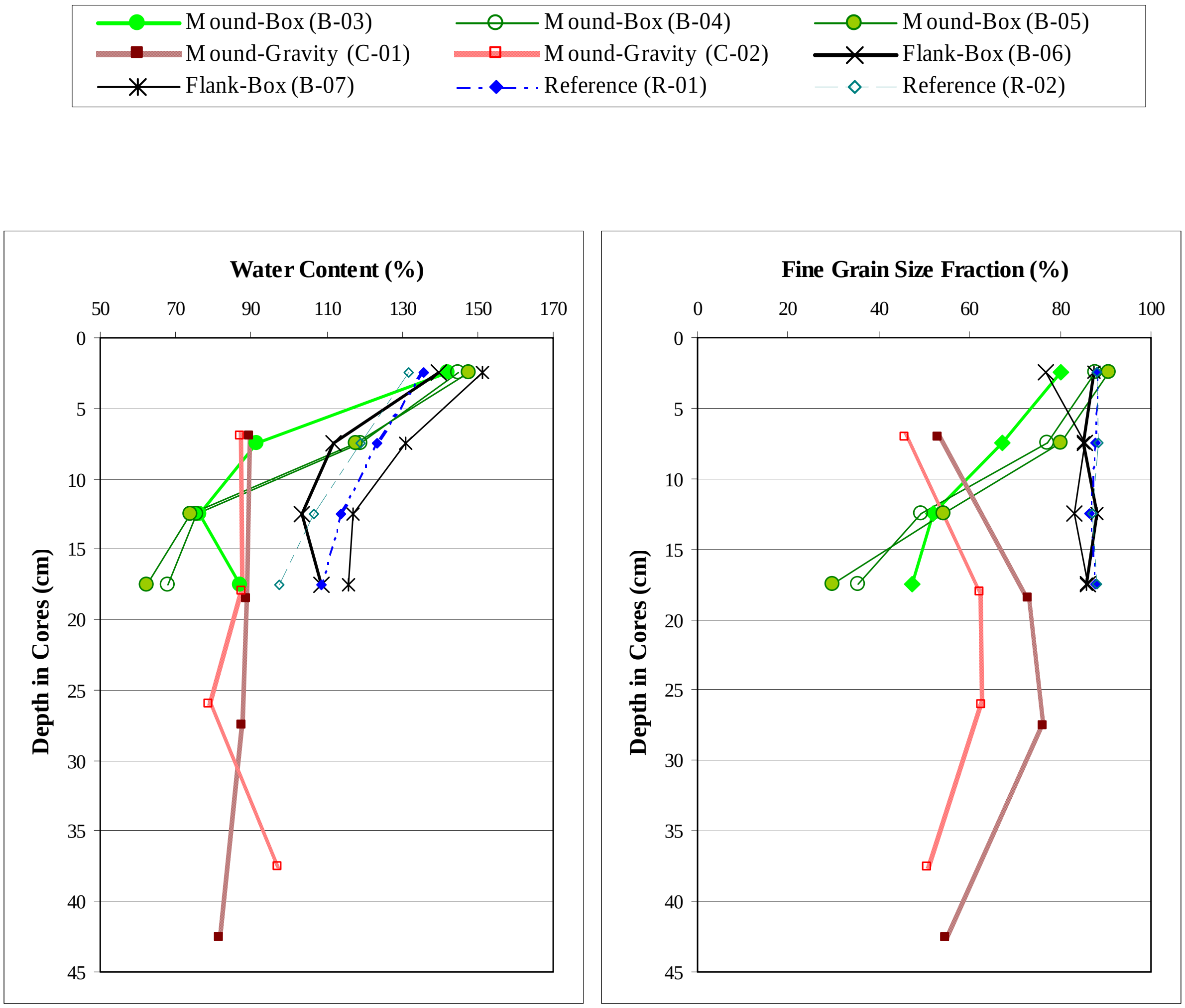

Figure 3-15. Water content (%; left panel) and fine grain size (silt+clay, %, right panel) with depth (cm) in all cores. On-mound box cores solid lines with green circles; on-mound gravity cores shaded lines with red squares; flank cores solid black lines with x/asterisk; reference dashed lines with blue diamonds.

Table 3-4.

Sediment Chemistry: Metals (mg/kg dry weight)

Station	Interval	Al	As	Be	Cd	Cr	Cu
B-03	A	14800	10	0.51	0.3	62	65.6
B-03	B	13200	9.5	0.47	0.68	83.3	116
B-03	C	10900	9.6	0.42	2.9	227	409
B-03	D	9729	10	0.43	7.864	479.8	991.8
B-04	A	13400	9.5	0.48	0.25	53.2	61.7
B-04	B	12000	7.6	0.45	0.36	62.2	85.8
B-04	C	9670	8.3	0.53	2.4	157	305
B-04	D	7509	7.4	0.33	6.584	335.6	741.7
B-05	A	12100	7.4	0.46	0.18	48.6	55
B-05	B	13000	8.2	0.49	0.38	61.6	78
B-05	C	9940	8.5	0.4	2.2	145	288
B-05	D	8000	8	0.36	4.9	256	571
B-06	A	12400	7.5	0.46	0.41	62.4	83.9
B-06	B	11700	8.2	0.43	0.41	62.5	84.3
B-06	C	11700	9	0.45	0.49	63.1	84
B-06	D	12200	8.5	0.45	0.58	75.3	103
B-07	A	14400	8.9	0.51	0.22	56.4	61.2
B-07	B	13800	7.6	0.51	0.33	63.3	71.7
B-07	C	13900	9.5	0.5	0.41	68.1	79.2
B-07	D	14000	10.4	0.48	0.82	87.5	123
C-01	A	8920	10.7	0.39	7.4	338	820
C-01	B	8820	5.9	0.33	2	97.9	195
C-01	C	11300	6.5	0.4	1.4	64.7	120
C-01	D	10100	13.7	0.51	21.8	804	2030
C-02	A	8810	9.8	0.4	10.6	478	1130
C-02	B	11100	7.7	0.4	3.7	150	334
C-02	C	9570	6.2	0.35	2.7	126	262
C-02	D	9960	11.4	0.46	12.1	555	1360
R-01	A	14400	8.3	0.48	0.14	43.2	36.9
R-01	B	14300	8.1	0.48	0.23	44.8	41.2
R-01	C	14100	7.5	0.47	0.18	45	40.8
R-01	D	13400	8.9	0.46	0.19	45.5	42.5
R-02	A	13500	7.9	0.45	0.073	41.3	35.5
R-02	B	13700	6.6	0.46	0.16	42.7	38.4
R-02	C	13100	7.7	0.46	0.19	42.9	40
R-02	D	13600	9.3	0.48	0.28	47.7	46

Table 3-4. (continued)

Sediment Chemistry: Metals (mg/kg dry weight)

Station	Interval	Fe	Pb	Hg	Ni	Se	Ag	Zn
B-03	A	27700	36	0.16	22.2	0.8	0.92	126
B-03	B	25000	40.2	0.2	22.2	0.65	1.5	138
B-03	C	20100	73.8	0.46	30.2	0.65	3.3	231
B-03	D	18432	133.6	0.559	50.5	0.31	6.42	438
B-04	A	25300	33.7	0.2	19.6	0.8	0.8	118
B-04	B	25800	35.2	0.21	19.4	0.7	1.1	117
B-04	C	19500	54.8	0.37	23.2	0.7	1.9	182
B-04	D	15397	145.8	0.727	41.3	0.31	4	363.8
B-05	A	23200	31.9	0.16	18.6	0.75	1.3	111
B-05	B	24300	36.9	0.19	20.3	0.65	1.6	124
B-05	C	19900	56.4	0.36	22.7	0.7	2.2	184
B-05	D	16900	92.5	0.57	28.8	0.65	3.1	281
B-06	A	23900	35.4	0.22	19.4	0.7	2.7	122
B-06	B	22000	38.3	0.21	18.8	0.7	1.9	119
B-06	C	22800	37.8	0.26	19.4	0.75	1.4	123
B-06	D	23700	47.5	0.25	21.5	0.7	2.1	136
B-07	A	24300	34.6	0.21	20.8	0.85	0.2	120
B-07	B	23100	37.5	0.26	20.9	0.75	1.3	129
B-07	C	23400	39.8	0.21	22	0.7	1.4	137
B-07	D	24000	48.7	0.26	25.6	0.65	1.7	157
C-01	A	18600	123	0.86	36.2	0.75	7.8	382
C-01	B	18100	32.5	0.22	18.9	0.7	3.9	117
C-01	C	22600	23.5	0.11	20	0.65	3.6	92.9
C-01	D	22000	244	1.7	78	0.75	10.6	777
C-02	A	17600	148	1	45.6	0.75	12.6	478
C-02	B	22000	57.3	0.31	25.7	0.65	8.2	188
C-02	C	18800	37.6	0.32	21.9	0.6	6.4	142
C-02	D	20900	185	1.3	56.1	0.65	10.4	561
R-01	A	23500	29.6	0.13	20.6	0.7	0.81	108
R-01	B	24500	30.8	0.16	20.9	0.7	0.7	111
R-01	C	22800	31.6	0.16	21	0.7	0.84	116
R-01	D	22400	33.7	0.16	21.1	0.65	0.75	116
R-02	A	22000	28.3	0.13	19.5	0.8	0.83	106
R-02	B	22200	29.3	0.13	20	0.65	0.67	109
R-02	C	22400	31.4	0.16	19.7	0.6	0.65	109
R-02	D	22600	35.9	0.17	21.4	0.6	0.42	119

Concentrations of several metals associated with historical BRH sediment, including Cd, Cr, Cu, lead (Pb), Hg, nickel (Ni), Ag, and zinc (Zn), were higher in most FVP samples than in reference samples, commonly exceeding the reference range by > 2 standard deviations from the mean. For example, Cu ranged from 35.5 to 46 mg/kg in reference samples, and 55 to 2,030 mg/kg in FVP samples (Table 3-4).

3.2.3 Polynuclear Aromatic Hydrocarbons

Individual high molecular weight PAH (HPAH) compounds were detected in all reference samples, with total HPAH concentrations ranging from 642 to 1,010 μg/kg . In FVP samples, individual HPAHs generally ranged from less than reference to concentrations > 2 standard deviations from reference mean, ranging from 516 to 20,100 μg/kg (Table 3-5).

Individual low molecular weight PAH (LPAH) compounds were present in low concentrations or undetected in all reference samples, with total LPAH concentrations ranging from 79 to 124 μg/kg (Table 3-5). In particular, acenapthene and naphthalene were below the detection limit in all, and fluorene in half, of the reference samples. In FVP samples, individual LPAHs ranged from near the maximum measured at reference to significantly higher values. Total LPAHs in FVP samples ranged from 113 to 7,470 μg/kg. Similarly, total PAHs ranged from 721 to 1,131 μg/kg in reference samples, and from 769 to 27,570 μg/kg in FVP samples (Table 3-5).

3.2.4 Polychlorinated Biphenyls

The pattern of PCB concentrations in reference and FVP samples was similar to that of PAHs and several metals. All PCB congeners were reported as below detection for all reference samples except for minor detections in the D (15-20 cm) samples in both reference cores. By contrast, total PCBs ranged from 6.9 to 3,347 μg/kg in FVP samples (Table 3-6).

3.3 Gravity Core Descriptions and Log Results

All processed gravity cores consisted of the same basic stratigraphy, shown in the photograph for one core from Station C-01 (Figure 3-16). Subsamples from the gravity cores were selected based on the observed strata. The surface layer (A sample) varied in thickness in the three split cores from 6-14 cm, and consisted of dark gray to black, organic, sulfidic, slightly sandy silt and clays. This dark layer in each core was underlain by a 16- to 20-cm thick layer of tan to light gray silty clay. The upper half of the tan/gray layer was

Table 3-5.

Sediment Chemistry: PAHs (µg/kg dry weight)

Station	Interval	Acenaph-thene	Acenaph-thylene	Anthra-cene	Fluorene	Naphtha-lene	Phenan-threne	LPAH
B-03	A	40	200	160	60	46	340	846
B-03	B	7.5	52	39	12	10.5	81	202
B-03	C	6	44.5	39.5	13.5	19.5	90	213
B-03	D	180	450	370	210	190	440	1840
B-04	A	9.2U	25	20	9.2U	12	58	124
B-04	B	8.0U	33	27	8.0U	10	58	136
B-04	C	8.8	82	52	17	18	98	276
B-04	D	22	155	120	36	37.5	200	580
B-05	A	8.8U	19	16	8.8U	9.6	81	135
B-05	B	14	55	38	21	15	160	303
B-05	C	11	100	65	22	25	120	343
B-05	D	25.5	230	160	48.5	55	240	771
B-06	A	8.6U	36	39	15	13	97	204
B-06	B	7.4U	22	18	7.4U	9.3	56	113
B-06	C	7.4U	31	26	8.8	16	69	154
B-06	D	7.2U	29	24	8.6	9.8	57	132
B-07	A	8.8U	37.5	29	8.7	7.7	64.5	152
B-07	B	8.4U	31	30.5	8.1	8.1	85	167
B-07	C	12.5	40.5	48.5	16	11.2	121	250
B-07	D	5.9	46	40	11.4	12.8	78	194
C-01	A	220	205	410	150	82.5	1200	2337
C-01	B	60	45	98	29	18	140	390
C-01	C	42	20	47	23	23	98	253
C-01	D	770	780	1400	680	530	3300	7470
C-02	A	155	320	470	105	72.5	520	1726
C-02	B	51	35	70	24	18	90	288
C-02	C	71	37	75	45	31	210	469
C-02	D	335	255	485	270	225	1400	3010
R-01	A	8.2U	24.5	19	6.3	8.2U	48	106
R-01	B	8.0U	21.5	22.7	8.5	8.0U	63	124
R-01	C	7.8U	20.6	15	7.8U	7.8U	40	87
R-01	D	7.2U	25	21	6.3	7.2U	54	114
R-02	A	8.2U	17	14	8.2U	8.2U	36	79
R-02	B	7.6U	18.5	15.5	7.6U	7.6U	41.5	87
R-02	C	7.4U	27	20	7.4U	7.4U	46.5	104
R-02	D	6.6U	30.5	22.5	6.2	6.6U	56	122

U denotes values reported as below detection; value is reporting limit.

Table 3-5. (continued)

Sediment Chemistry: PAHs (µg/kg dry weight)

Station	Interval	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene
B-03	A	470	680	860	480	300	480
B-03	B	122.5	180	225	125	69.5	140
B-03	C	130	180	230	120	73.5	140
B-03	D	880	1200	1400	790	630	850
B-04	A	84	110	140	67	51	100
B-04	B	97	120	160	85	61	100
B-04	C	180	240	310	150	100	210
B-04	D	465	495	610	285	215	405
B-05	A	71	92	130	61	33	92
B-05	B	150	200	250	130	100	180
B-05	C	230	320	360	190	150	260
B-05	D	620	720	880	405	330	585
B-06	A	110	120	170	78	62	150
B-06	B	68	89	120	60	40	84
B-06	C	93	120	160	86	65	110
B-06	D	75	100	140	70	51	85
B-07	A	100	147	174	100.5	67.5	128
B-07	B	101	142.5	165	97	68	125.5
B-07	C	149	170	195	111.5	86.5	135
B-07	D	100.5	165	210	118.5	66	140
C-01	A	1000	910	1100	465	345	1100
C-01	B	140	120	140	72	58	170
C-01	C	49	44	50	29	19	61
C-01	D	2200	1700	2300	1000	590	2800
C-02	A	1100	990	1200	515	370	1200
C-02	B	120	100	130	66	50	140
C-02	C	110	96	120	61	47	150
C-02	D	860	660	920	380	285	1000
R-01	A	70.5	99.5	132.5	75	47.5	87
R-01	B	72.5	92.5	119	71	49	86
R-01	C	59	83	103	63	42	71
R-01	D	73.5	103	135.5	78	47	89.5
R-02	A	55.5	76	94.5	55.5	37	67
R-02	B	60.5	82.5	107.5	61	38.5	73
R-02	C	77.5	106.5	135.5	75.5	53.5	92.5
R-02	D	80.5	118.5	150.5	88.5	57	100.5

Table 3-5. (continued)

Sediment Chemistry: PAHs (µg/kg dry weight)

Station	Interval	Dibenz(a,h)-anthracene	Fluoran-thene	Indeno(1,2,3-c,d)pyrene	Pyrene	HPAH	Total PAH
B-03	A	120	1000	380	910	5680	6526
B-03	B	33.5	210	100	255	1461	1662
B-03	C	32.5	205	99	260	1470	1683
B-03	D	320	1100	660	1300	9130	10970
B-04	A	16	150	60	170	948	1072
B-04	B	23	170	70	210	1096	1232
B-04	C	42	240	120	450	2042	2318
B-04	D	84.5	455	230	1100	4593	5173
B-05	A	15	160	55	160	869	1004
B-05	B	36	320	110	340	1816	2119
B-05	C	56	280	150	550	2546	2889
B-05	D	120	570	320	1400	6110	6881
B-06	A	20	190	69	200	1169	1373
B-06	B	14	130	50	150	805	918
B-06	C	23	160	73	190	1080	1234
B-06	D	18	130	60	170	899	1031
B-07	A	27	180	86.5	167	1178	1329
B-07	B	26	210	79	195	1209	1376
B-07	C	29	245	96	220	1437	1687
B-07	D	30.5	195	97.5	260	1383	1577
C-01	A	135	2100	390	2000	9850	12187
C-01	B	21	280	56	320	1377	1767
C-01	C	11	110	23	120	516	769
C-01	D	265	4100	675	4200	20100	27570
C-02	A	155	1900	410	2200	10320	12046
C-02	B	20	230	54	270	1180	1468
C-02	C	18	240	48	270	1160	1629
C-02	D	114	1600	305	1700	8120	11130
R-01	A	18.5	126	64.5	125	846	952
R-01	B	15	138	60	137	840	964
R-01	C	14.5	105.5	53.5	115	709	797
R-01	D	18	141	64.5	142.5	893	1006
R-02	A	11.5	97	46	101.5	642	721
R-02	B	14.2	108.5	52	119	717	804
R-02	C	19	134	66	145	905	1009
R-02	D	21.5	152.5	75	165	1010	1131

Table 3-6.

Sediment Chemistry: PCBs (µg/kg dry weight)

Station	Interval	PCB008	PCB018	PCB028	PCB044	PCB049	PCB052	PCB066	PCB087
B-03	A	2.7U	2.7U	4.3	3.8	2.7U	2.7U	2.7U	5.3
B-03	B	4.1	8.3	18	6.9	2.4U	4.3	9.1	6.5
B-03	C	2.1U	34	58	34	36	49	41	51
B-03	D	21	110	115	68	69.5	84.5	108.5	130
B-04	A	2.8U	2.8U	2.8U	2.8U	2.8U	2.8U	2.8U	2.8U
B-04	B	2.4U	2.4U	5.6	2.4U	2.4U	2.4U	2.4U	2.4U
B-04	C	2.3	16	19	11	1.9U	9.5	6.7	15
B-04	D	18	61	56	33	34	41	48	52
B-05	A	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U
B-05	B	2.4U	2.4U	3.9	2.4U	2.4U	2.4U	2.4U	2.4U
B-05	C	3.5	6.8	16	9.1	2.6	8.6	5.2	13
B-05	D	5.2	25	31	18	22	23	41	32
B-06	A	2.6U	7.4	8.3	3.4	2.6U	2.6U	3.4	2.6U
B-06	B	2.2U	2.2U	7.6	3	2.2U	2.2U	2.2U	2.2U
B-06	C	2.2U	2.2U	6.2	2.2U	6.7	2.2U	6.8	2.2U
B-06	D	2.2U	2.2U	8.2	4.2	6.6	6.8	8.9	8.1
B-07	A	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U
B-07	B	2.6U	2.6U	5.8	2.9	2.6U	2.6U	2.6U	2.6U
B-07	C	2.3U	2.3U	5.9	2.3U	2.3U	2.3U	2.3U	2.3U
B-07	D	3.5	2.2U	8.4	4.1	6.9	6.5	2.6	2.2U
C-01	A	13	47	33	27	25	34	30	52
C-01	B	6.5	7.5	7.1	4.6	7.2	3.6	4.4	8.1
C-01	C	5.5	2.4	6.5	2.4	1.8U	4.7	5.2	1.8U
C-01	D	16	58	31	34	35	45	80	72
C-02	A	16	44	27	25	16	33	27	52
C-02	B	3.4	14	12	9.1	5.4	12	12	20
C-02	C	1.8U	46	51	37	1.8U	1.8U	37	46
C-02	D	28.5	83.5	52.5	50.5	26.45	67	91.5	99
R-01	A	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
R-01	B	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U
R-01	C	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U
R-01	D	2.2U	2.2U	2.5	2.2U	2.2U	5.8	2.2U	2.2U
R-02	A	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
R-02	B	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U
R-02	C	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U
R-02	D	2.0U	2.0U	2.7	2.0U	2.0U	2.0U	2.0U	2.0U

U denotes values reported as below detection; value is reporting limit.

Table 3-6. (continued)

Sediment Chemistry: PCBs (µg/kg dry weight)

Station	Interval	PCB101	PCB105	PCB118	PCB128	PCB138	PCB153	PCB170	PCB180
B-03	A	2.7U	2.7U	3.9	2.7U	7	5.6	2.7U	2.7U
B-03	B	17	7.9	17	4.4	26	17	3.1	9.4
B-03	C	90	31	63	16	88	62	12	46
B-03	D	185	78	145	38	205	155	30	50
B-04	A	2.8U	2.8U	2.8U	2.8U	4.7	3.2	2.8U	2.8U
B-04	B	3.3	2.4U	4.4	2.4U	7.4	5.6	2.4U	2.4U
B-04	C	39	13	26	6.8	39	28	5.2	12
B-04	D	88	33	58	16	89	67	13	24
B-05	A	2.7U	2.7U	2.7U	2.7U	4.3	3.5	2.7U	2.7U
B-05	B	5.2	2.4U	3.2	2.4U	6.2	5.3	2.4U	2.4U
B-05	C	26	11	22	5.7	32	23	4.6	8.9
B-05	D	55	22	42	12	63	46	9.6	18
B-06	A	7.2	4	9.1	2.9	16	12	2.6U	4.2
B-06	B	6.8	2.5	5.8	2.2U	9.9	7.6	2.2U	2.5
B-06	C	6.8	2.2U	4.5	2.2U	8.4	7.5	2.2U	2.7
B-06	D	8.6	2.4	6.1	2.2U	10	7.9	2.2U	3.6
B-07	A	2.7U	2.7U	2.7U	2.7U	3.8	3.1	2.7U	2.7U
B-07	B	4.1	2.6U	5.4	2.6U	8.9	6.2	2.6U	3.4
B-07	C	6.4	2.3U	4.1	2.3U	8.1	6.3	2.3U	2.8
B-07	D	10	2.6	6.6	2.2U	12	8.7	2.2U	3.8
C-01	A	85	32	64	18	98	65	15	32
C-01	B	17	7	13	3.7	22	16	2.2	3.5
C-01	C	16	4.2	7.7	2.4	14	10	1.8U	3.4
C-01	D	170	44	87	28	140	92	20	43
C-02	A	87	32	63	17	98	65	14	30
C-02	B	32	14	24	7.1	38	29	4.5	11
C-02	C	97	29	54	14	84	57	11	24
C-02	D	245	59.5	110	36.5	180	120	26	55.5
R-01	A	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
R-01	B	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U
R-01	C	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U
R-01	D	3.7	2.2U	2.2U	2.2U	2.3	2.4	2.2U	2.2U
R-02	A	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
R-02	B	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U
R-02	C	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U
R-02	D	2.0U	2.0U	2.0U	2.0U	2.5	3	2.0U	2.0U

U denotes values reported as below detection; value is reporting limit.

Table 3-6. (continued)

Sediment Chemistry: PCBs (µg/kg dry weight)

Station	Interval	PCB183	PCB184	PCB187	PCB195	PCB206	PCB209	Total PCBs
B-03	A	2.7U	2.7U	2.7U	2.7U	2.7U	4.3	34
B-03	B	2.4U	3	4.2	2.4U	3.5	2.4U	170
B-03	C	2.1U	15	17	6.3	27	4.2	781
B-03	D	3.1U	19.5	29.5	7.15	17	7.85	3347
B-04	A	2.8U	2.8U	2.8U	2.8U	2.8U	2.8U	8
B-04	B	2.4U	2.4U	2.4U	2.4U	2.4U	3	29
B-04	C	1.9U	3.7	6	2.2	4.4	2.5	267
B-04	D	1.8U	7.6	13	4.2	8.8	4.8	769
B-05	A	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U	8
B-05	B	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	24
B-05	C	2.0U	3	4.7	2.0U	4.4	2.7	213
B-05	D	1.8U	7	9.6	3.8	7.8	5.6	499
B-06	A	2.6U	2.6U	2.6	2.6U	2.6U	2.6U	81
B-06	B	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	46
B-06	C	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	50
B-06	D	2.2U	2.2U	1.7	2.2U	2.2U	2.2	85
B-07	A	2.7U	2.7U	2.7U	2.7U	2.7U	2.7U	7
B-07	B	2.6U	2.6U	2.6U	2.6U	2.6U	2.6U	37
B-07	C	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U	34
B-07	D	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	76
C-01	A	2.0U	11	16	3.8	15	12	728
C-01	B	1.9U	1.9U	3.4	1.9U	3.3	1.9U	140
C-01	C	1.8U	1.8U	2	1.8U	2.3	1.8U	89
C-01	D	2.0U	15	23	8.2	19	15	1075
C-02	A	2.0U	9.4	16	4.3	14	10	700
C-02	B	1.9U	3.1	5.8	4.4	6	1.9U	267
C-02	C	1.8U	7.1	14	2	8.8	6	625
C-02	D	2.9U	21.5	29	11.5	28	21.5	2884
R-01	A	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
R-01	B	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U
R-01	C	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U	2.4U
R-01	D	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	16.7
R-02	A	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
R-02	B	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U	2.3U
R-02	C	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U	2.2U
R-02	D	2.0U	2.0U	2.0U	2.0U	2.0U	2.0U	8.2

U denotes values reported as below detection; value is reporting limit.

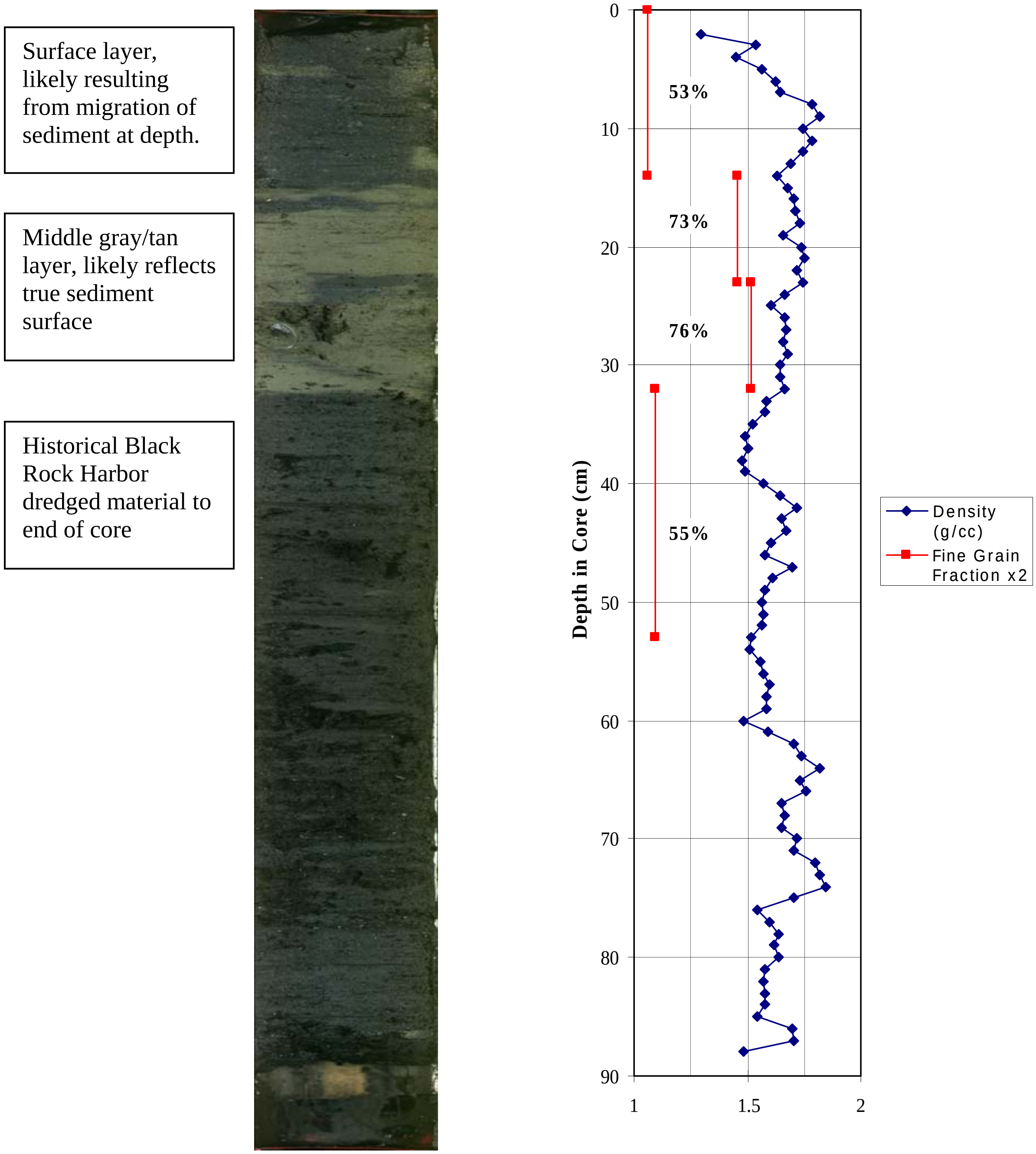

Figure 3-16. Core photograph (left panel) and bulk density core log results (right panel) of Core C-01A. Fine-grained fraction plotted in four samples as fraction multiplied by two for consistency of scale; actual fine grain measurements shown as percentages along sample.

collected for the B sample, and the lower half for the C sample. This tan layer was consistent across all gravity cores. The material below this tan layer, collected as the D sample, was black, sulfidic, very sandy silt and clay with distinct hydrocarbon odors, clearly representative of BRH sediment.

It is unlikely that the sediment from the “A” sample strata was truly representative of surface sediment. The lack of any oxidized sediment in this layer, the uniformity of water content down-core (Figure 3-15), and the presence of mixed sand and silt and hydrocarbon odors consistent with the BRH dredged material at depth, suggest that the surface layer represented disturbed sediment from depth that bypassed the tan sediment surface when the gravity cores were brought on board. As described in the field log, when the gravity cores were retrieved, they were laid on the side to remove the core liner from the barrel, providing an opportunity for disturbance of the natural stratigraphy.

Bulk density results were variable down-core for the two logged gravity cores. The upper 10 cm of the cores showed influence of introduced water, as bulk densities increased rapidly from approximately 1 g/cc (water), to 1.5 g/cc (silt/clay), to 2.0 g/cc or higher (sand; Figure 3-16), consistent with the anomalous upper black silty layer. Bulk density results reflected distinct and variable sediment layers, composed of intervals dominated by low-density, high-water-content silts and clays, and higher density sandier intervals. Discrete fine grain size was plotted along with the bulk density log data as a fraction (times two so scales would be similar); actual measured fine-grained fraction is also shown on the plot (Figure 3-16). Data from samples composited over a depth range result in a smoothed mean values, while the log data showed the heterogeneity of the sediment layers.

The highest densities corresponded with the deepest part of the core (e.g., 60-75 cm), as well as a spike at approximately 10 cm (Figure 3-16), consistent with the sandier BRH material. The light layer had a more consistent density profile, more typical of native Long Island Sound sediment (Moore et al. 2002). The lowest measured densities were measured at the top of the core, and in the top of the dark BRH sediment layer near the dark/tan sediment boundary. This less dense layer could be a remnant of the historical top of the FVP mound, where the lowest density silt and clays would have settled following the disposal event

Elevated concentrations of all of the BRH-related chemicals were present in the upper sample (A) of the gravity cores (Tables 3-4, 3-5, and 3-6), but were low in the samples collected from the gray layers, similar to the surface samples of the box cores. Most of the maximum contaminant concentrations measured were from the deepest sample of one of the gravity cores (Table 1-2), suggesting that the stratigraphy of the middle and bottom of the gravity cores were intact, and that they did penetrate farther into BRH sediment relative to box cores. There is, however, sufficient uncertainty of the degree of mixing that the chemistry summary (Section 4.2) excluded the chemistry data from the gravity cores.

4.0 DISCUSSION

4.1 Biological Recovery – SPI Results

The FVP mound has been one of the most intensively monitored mounds in the DAMOS Program over the past two decades. It is a unique case study of the long-term effects of placing material unsuitable for unconfined open-water disposal at an open-water location and employing an alternative remediation strategy of monitored natural recovery (MNR; Thibodeaux et al. 1994). While the standard rule of thumb for benthic community recovery after disposal of dredged material is anywhere from 2 to 5 years (Bolam and Rees 2003), the sequence of benthic community recovery at the FVP mound has followed a more circuitous route than most other disposal mounds, probably because of the exposed contaminated sediment at the surface (i.e., it is uncapped).

At the conclusion of the joint USEPA/USACE FVP research, researchers had documented that stations away from the direct center of the mound had recovered to background conditions within one year following disposal, while recruitment at the center station was lagging behind other stations. However, within two years following disposal, species numbers were similar at the center of the mound and at reference stations, with a more diverse assemblage present on the mound (Scott et al. 1987). This finding was consistent with earlier observations that secondary benthic productivity is often enhanced on dredged material disposal mounds due to pulsed disturbance and recruitment of opportunistic species (Rhoads et al. 1978). If monitoring at the FVP mound had stopped at this point, it would have become merely another documented case study illustrating that benthic community recovery following open-water dredged material disposal occurs in about two years.

Continued monitoring of the FVP mound under the DAMOS Program, however, revealed that retrograde conditions in benthic community structure did occur occasionally. While the sediment-profile camera survey in 1991 documented the continued presence of Stage III fauna on the disposal mound (Wiley and Charles 1995), the surveys in 1993 and 1995 documented degraded conditions around the center of the disposal mound (Morris 1997) related to seasonal hypoxia, a regional phenomenon in western and central LIS that is unrelated to dredged material disposal. The infaunal community on the FVP mound appeared to be more susceptible to external seafloor disturbance and tended to recover at a slower rate relative to the CLDS reference areas and the surface of other CLDS disposal mounds following hypoxic events. The reason for this time lag was thought to be related to the additional stress on recruiting benthos from the chemical concentrations in FVP sediments. However, the results of the September 1999 sediment-profile camera survey revealed benthic conditions over the FVP mound that were better than anticipated, exceeding the conditions detected within the ambient sediments at the CLDS reference areas (SAIC 2002). The cycles of improvement and recession of the benthic environment as measured by the SPI camera suggest that periods of retrograde succession are then followed by the classic benthic recovery typical of newly formed disposal mounds (Germano and Rhoads 1984).

The results of the 2005 survey, like the 1999 survey results, showed the widespread presence of Stage III fauna at the disposal mound. The benthic communities on both the mound and historical flank areas are functionally equivalent to those found at the reference station (Figures 3-9, 3-10). The notable characteristics of the sediments at the on-mound stations that separate them from others surveyed in the DAMOS Program are: 1) the persistence of the dredged material optical signature in the subsurface sediments, 2) the relatively shallow RPD found at on-mound stations, and 3) the lack of intense, bioturbational reworking of the sediments at depth. These phenomena are definitely related; while evidence was found of animals venturing into the subsurface zone of black, high-organic sediment (Figure 4-1), the sediments on the mound are still not as biogenically mixed as those found in the near-field surrounding flank (e.g., Figure 3-12).

4.2 Chemical Recovery – Sediment Chemistry Results

The monitored presence of contaminated sediments on the Long Island Sound (LIS) seafloor is a unique circumstance resulting from the FVP research program. The long-term fate of chemicals associated with dredged material disposal has been a subject of intensive research, thus the chemical data from FVP can help document the predicted diagenetic processes that are part of the MNR paradigm.

Most of the chemicals of concern (Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn, PAHs, PCBs) showed a similar pattern between the on-mound and flank box cores. Concentrations of these contaminants were low or below detection limits in reference samples. Concentrations at the two Flank Stations (B-06 and B-07) were slightly higher than at the reference stations. The three on-mound box cores (B-03, B-04, and B-05) showed an increase with depth in most measured contaminants, consistent with penetration into material mixed with BRH sediment, as shown by Cu profiles in the cores (Figure 4-2).

The only exception to this pattern was PAH concentrations in one surface sample in one box core (B-03; Figure 4-3). This discrepancy is probably not BRH sediment as all of the other BRH-related contaminants were in concentrations typical of the other

Figure 4-1. This sediment-profile image from Station SON-10 shows errant polychaetes (upper arrows) below the intensively-reworked, oxidized surface layer, as well as evidence (lower arrow) of additional subsurface burrowing.

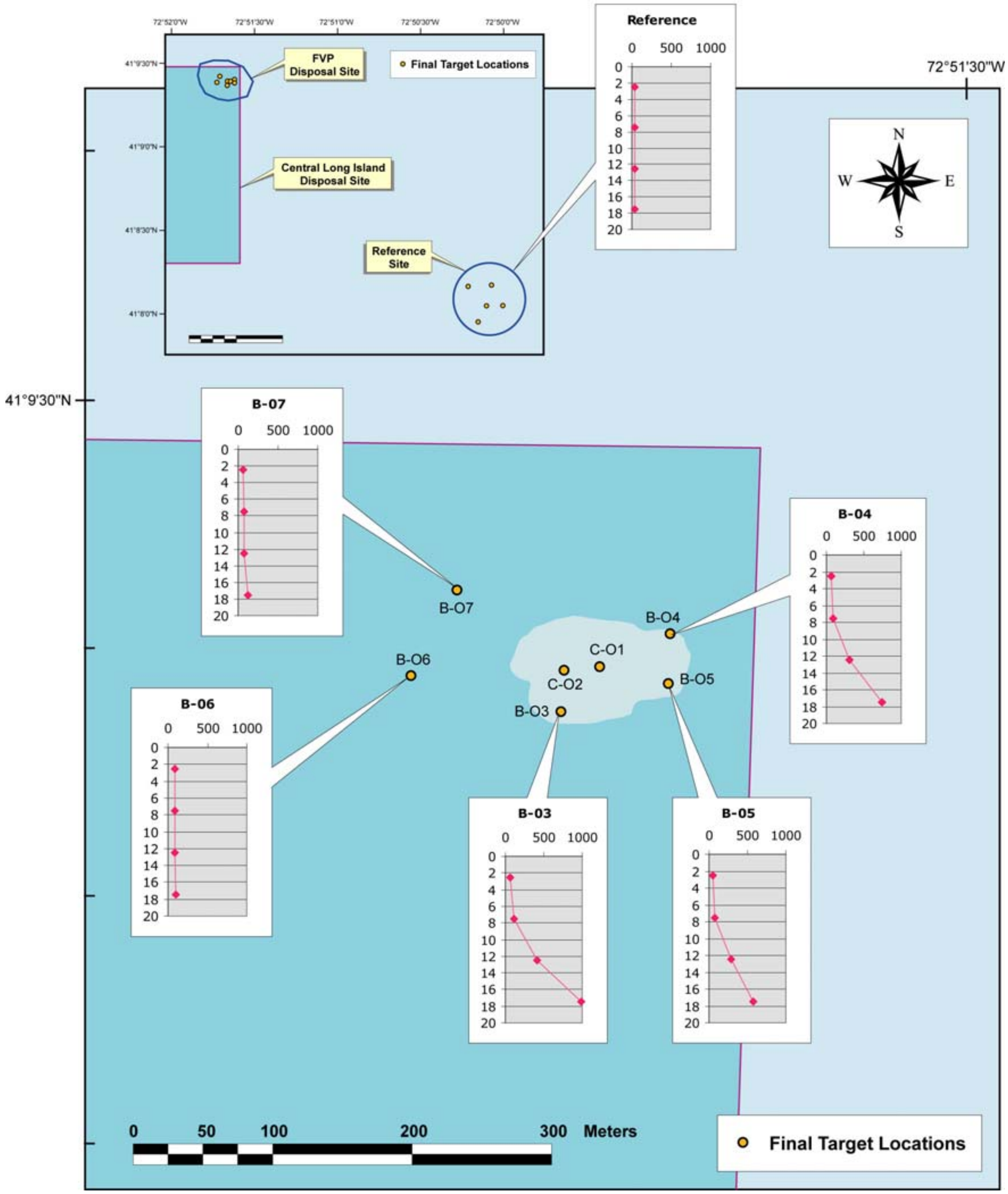

Figure 4-2. Copper concentrations (mg/kg) in box cores with depth (cm). Points represent center point of each sample, collected at 5-cm increments. Contour line demarcating the FVP on-mound boundary represents the approximate 19.5 meter contour.

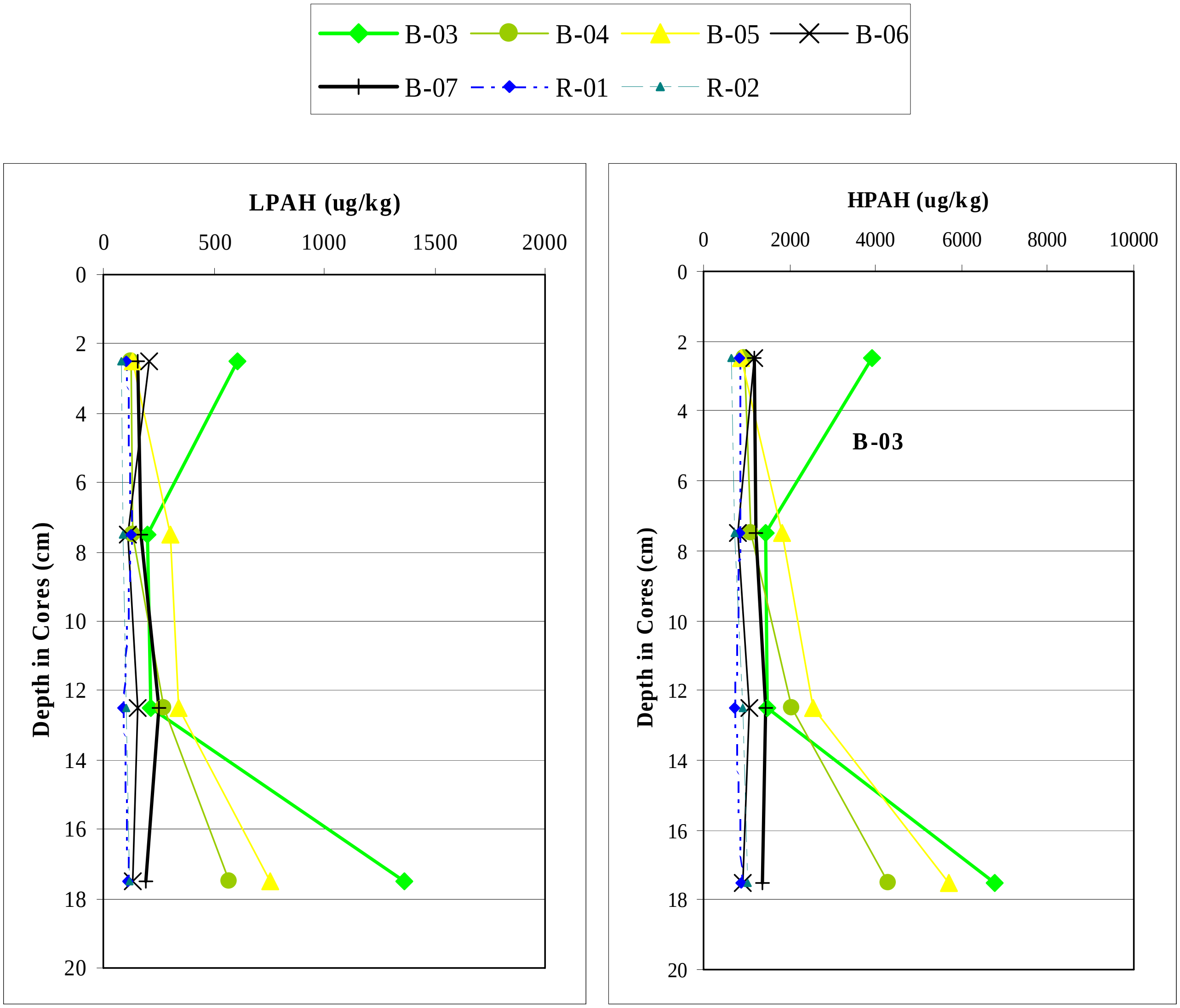

Figure 4-3. Low PAH (left panel) and high PAH (right panel) concentrations in box cores, showing isolated presence of PAHs in surface sediment of core B-03.

flank and surface samples in the group. The presence of PAHs in this sample is most likely an outlier, not related to the buried BRH material below, but rather the patchy presence of hydrocarbon-related contaminants in LIS.

For statistical comparison, the box core samples were grouped by 1) reference sediment (eight samples), 2) surface (0-10 cm) and flank sediment (14 samples), and 3) on-mound box core (B-03, -04, and -05) sediment at depth (10-20 cm; 6 samples). Gravity core samples were excluded from this statistical summary due to the potential mixing problem discussed in Section 3.3. Aluminum, Fe, and fine grain size, typically used to normalize metals data, were all associated with the natural sediment of LIS, and consequently showed an inverse pattern to the BRH-related contaminants (e.g., Figure 3-15). Although fine grain size is typically associated with contaminants, in the case of the FVP mound, the highest contaminant concentrations are actually associated with the coarser grained samples. Therefore, metals were not normalized, although this would enhance the differences between the BRH and ambient materials. Normalizing the organic contaminants to TOC did not change the drawn conclusions due to the narrow range of TOC measured in most of the samples (Table 3-3).

The sediment collected below 10 cm in the on-mound samples was clearly influenced by the presence of BRH sediment. The surface sediment was associated with deposition of ambient LIS sediments, as shown by the lower, and sometimes near-reference, concentrations of BRH-related contaminants (Table 4-1). Although the flank stations showed little variability of concentrations of contaminants or conventional parameters with depth in the cores, there was a slight dredged material signal, including both contaminants and sand fraction, remaining in these flank stations relative to reference (Figure 4-4).

The decrease of BRH-associated chemicals and increase in the fine-grained fraction in the surface sediments of the FVP mound suggest that active diagenesis is taking place, most effectively in the flank stations where only thin layers of dredged material were originally present. Samples collected as far as 1000 meters from the mound center in 1983 showed a chemical signal of the BRH material immediately after deposition (Figure 4-5). Active sedimentation, as seen in the increase in the percentage of fine-grained sediment at the surface (Figure 3-15), is likely one of the primary drivers of diagenesis that dilutes both chemicals and the sandier dredged material.

The physical process of sediment mixing through bioturbation both blurs the boundary between the historical dredged material and the ambient sedimentation, and conveys sand and contaminants to the surface sediments, resulting in the flank and surface sediments

Table 4-1.

Sediment Chemistry Summary Results (mean ± 1 SD) Grouped by Reference; Surface (0-10 cm) and Flank; and Deep (10-20 cm) Mound Stations

Parameter	**Reference** n=8	**Flank/Surface** n=14	**On-Mound/Depth** n=6
Conventionals			
TOC (%)	1.6 ± 0.15	1.5 ± 0.17	1.4 ± 0.23
Water Content (%)	117 ± 13	125.7 ± 19.7	73.8 ± 8.3
Sand (%)	11.6 ± 0.5	16.9 ± 6.4	48.7 ± 8.6
Fines (%)	87.7 ± 0.6	82.3 ± 6.4	44.8 ± 9.8
Metals (mg/kg)			
Aluminum	13763 ± 919	13043 ± 1038	9291 ± 1280
Arsenic	8 ± 1.7	8.7 ± 1	8.6 ± 1
Beryllium	0.47 ± 0.02	0.48 ± 0.03	0.41 ± 0.07
Cadmium	0.18 ± 0.12	0.42 ± 0.18	4.47 ± 2.37
Chromium	44.1 ± 4	65 ± 10.7	266.7 ± 125.5
Copper	40.2 ± 3.3	82.3 ± 20.1	551.1 ± 276
Iron	22800 ± 1646	24179 ± 1433	18372 ± 1877
Lead	31.3 ± 5	38.1 ± 4.8	92.8 ± 39
Mercury	0.15 ± 0.03	0.21 ± 0.03	0.51 ± 0.14
Nickel	20.5 ± 1.4	20.8 ± 1.9	32.8 ± 11
Selenium	0.68 ± 0.13	0.73 ± 0.06	0.55 ± 0.19
Silver	0.71 ± 0.27	1.42 ± 0.6	3.49 ± 1.63
Zinc	112 ± 9.3	127 ± 11.8	280 ± 103.2
Organics (ug/kg)			
LPAH	103 ± 17	222 ± 187	670 ± 610
HPAH	820 ± 122	1502 ± 1233	4315 ± 2928
Total PAHs	923 ± 137	1724 ± 1420	4986 ± 3517
Total PCBs	4 ± 5.7	49.1 ± 43.3	700 ± 534

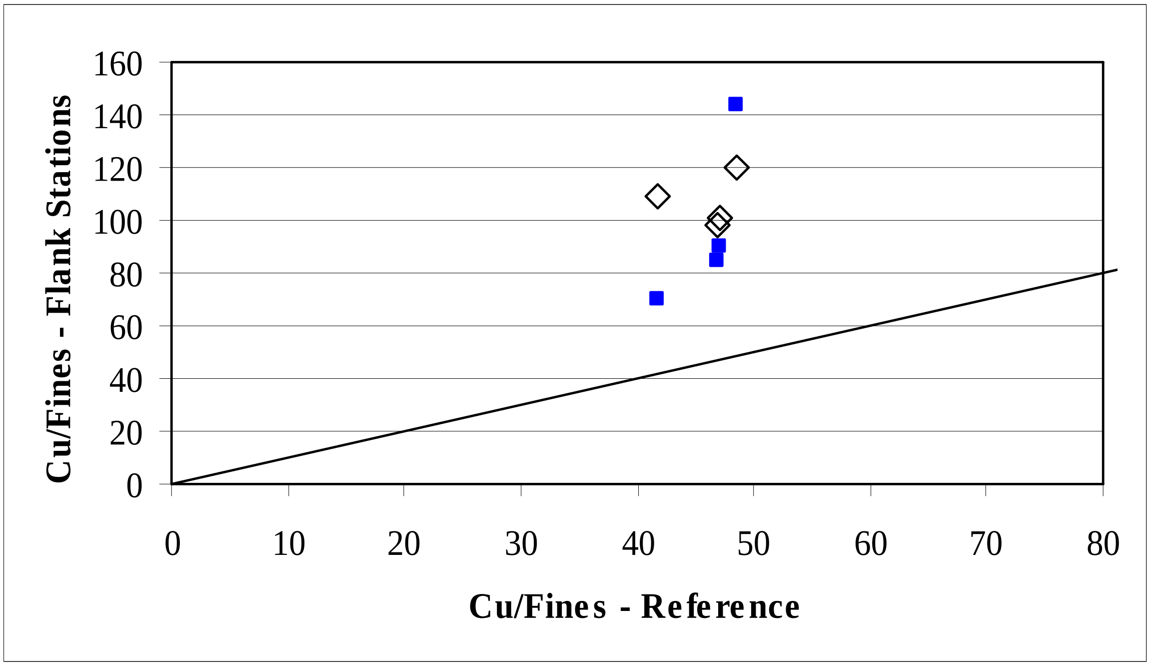

Figure 4-4. Copper as a function of percent fines for flank stations relative to similar depths in reference cores (diamonds: B-06; squares: B-07; line represents 1:1 ratio).

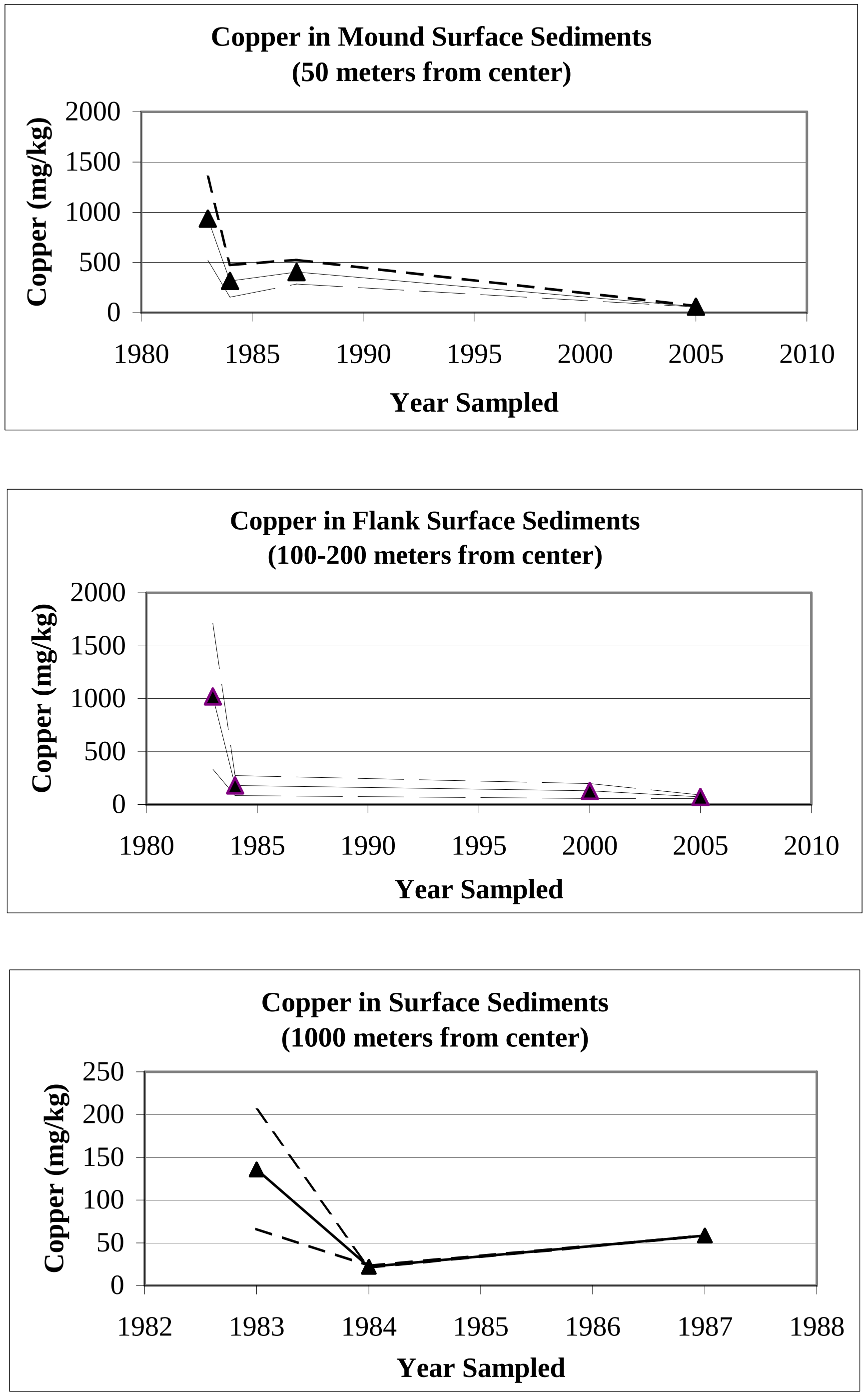

Figure 4-5. Historical trend of mean copper concentrations (solid line) in surface sediment collected from stations near the center (top panel), flank (middle panel), and outlying (bottom panel) mound areas. Dashed lines define one standard deviation from the mean of all samples within each zone. Note different scales for outlying stations.

having slightly higher contaminant and sand concentrations relative to reference (Figure 4-4). Although bioturbation enhances oxygenation of surface sediments and is a critical process for successional advancement of the benthic community (Section 4.1), it may serve as a contaminant transport conduit, and therefore hinders achieving long-term effectiveness of MNR.

Further evidence supporting natural recovery of the surface sediments of the FVP mound was published in the recently completed Environmental Impact Statement (EIS) for dredged material disposal in LIS. Surface sediment from the FVP mound was used for a sediment quality triad assessment as part of the LIS EIS (ENSR 2001). Due to the offset noted in Section 1.2, samples were collected in a random pattern in the area between Cores B-06 and B-07 (Figure 2-2), located approximately 100 m west of the center of the mound. Therefore, the samples collected for the EIS were most representative of the flank sediments of FVP, similar to the top two core samples from B-06 and B-07 that represent a mixture of ambient and FVP-influenced sediment. The sediment showed no toxicity and no differences in benthic community structure relative to reference, despite concentrations of metal and organic contaminants above selected sediment quality guidelines. Triad studies conducted in 1982 on BRH sediment as part of the original FVP showed extreme chronic and acute toxicity as a result of direct exposure to BRH sediments (Gentile et al. 1988). The recent LIS EIS results suggest that the surface sediment of the flanks of the FVP mound is not toxic.

4.3 Long-term Impact of Dredged Material Disposal

The footprint of the FVP mound as measured in bathymetric surveys has not changed significantly in the 22 years since disposal. Single-beam surveys conducted immediately after creation of the FVP mound showed a small deposit approximately 200 x 100 m, with the major axis in the east-west direction, similar to the distribution mapped from multibeam data collected in 2005 (ENSR 2006; Figure 1-1). The baseline texture of the seafloor in the FVP area consists of fine-grained silt with the common appearance of sedimentary furrows and pits (Poppe et al. 2001; 2004). Figure 1-1 shows that the FVP mound overlies these features and continues to show high acoustic reflection in sidescan surveys. Despite the presence of new fine-grained sediment recovered in core samples, the acoustic signature of FVP material remains. Impact craters and other disposal features are still visible in the acoustic data (Figure 1-1). This is likely due to both the distinct topography of the FVP mound against the background sediment, and the difference in texture (grain size and water content) of the historical dredged material. The intensity of the reflections, however, has most likely dissipated, considering the lack of bright “disposal trails” in recent sidescan surveys that were apparently visible in sidescan data from immediate postdisposal surveys (Morton et al. 1984).

The U.S. Geological Survey (USGS) has conducted extensive research into sediment texture and transport processes in LIS. The presence of sedimentary furrows in the FVP area suggests sediment transportation related to the tidal regime (Poppe et al. 2001). The furrows are of significant amplitude relative to the total height of the FVP mound, especially obvious in the N-S transects of the FVP area (Figure 4-6). Although indicative of sediment movement, it appears that the sedimentary environment of the CLDS seafloor does not experience net erosion; resuspension is the major mechanism of bottom sediment transport (Signell et al. 2000), so that sediment is resuspended and deposited over short spatial and temporal scales. The furrows are possibly relic features that do not continue to migrate significantly in the FVP area, as they appear to stop at the edges of the mound (ENSR 2006; Figure 1-1).

Core data suggest that sedimentation is taking place at the FVP mound sediment surface (Section 4.2). Estimates of the sedimentation rate in LIS vary widely (e.g., Kim and Bokuniewicz 1991; Moore et al. 2002; Varekamp et al. 2003), depending on the location within LIS and the sedimentary environment. Western LIS is a depositional environment; estimates of sediment deposition in the area dominated by fine-grained sediment range from 0.78 – 0.88 cm/year (Moore et al. 2002; Varekamp et al. 2003) to higher rates of 1.72 cm/year (Moore et al. 2002). In areas of both erosion and deposition, the rate may be as low as 0.44 cm/year (Moore et al. 2002). The FVP mound is located near the boundary between areas dominated by deposition and areas of a combination of erosion/deposition, although the dominant fine grain size in reference cores suggest that deposition is dominant. Assuming a range of possible sedimentation rates between 0.4 and 0.8 cm/year since disposal in 1983, an additional 8.8 - 17.6 cm of sediment would have been deposited at the FVP mound since disposal.

Comparisons of subsequent bathymetric data do not show a consistent mound height change measurable within resolution of the data. The presence of the surface light gray/tan sediment layer with relatively low contaminant concentrations, however, suggests that some sedimentation has taken place that has served to dilute the BRH sediment. The thickness of sediment that has been deposited since creation of the FVP mound is probably closer to lower regional estimates, resulting in 5-10 cm of additional sediment deposited since FVP disposal. The sedimentation in the FVP area is affected by periodic disturbance, e.g. storms.

Historical aRPD data have shown that surface sediments of the mound, especially those at the top of the mound, are most susceptible to resuspension and erosion of the upper few centimeters of oxygenated sediment. For example, survey results after Hurricane Gloria (Parker and Revelas 1988) showed a dramatic decrease in aRPD depth at that time, corresponding to a loss of the upper 2-3 cm of sediment from the mound

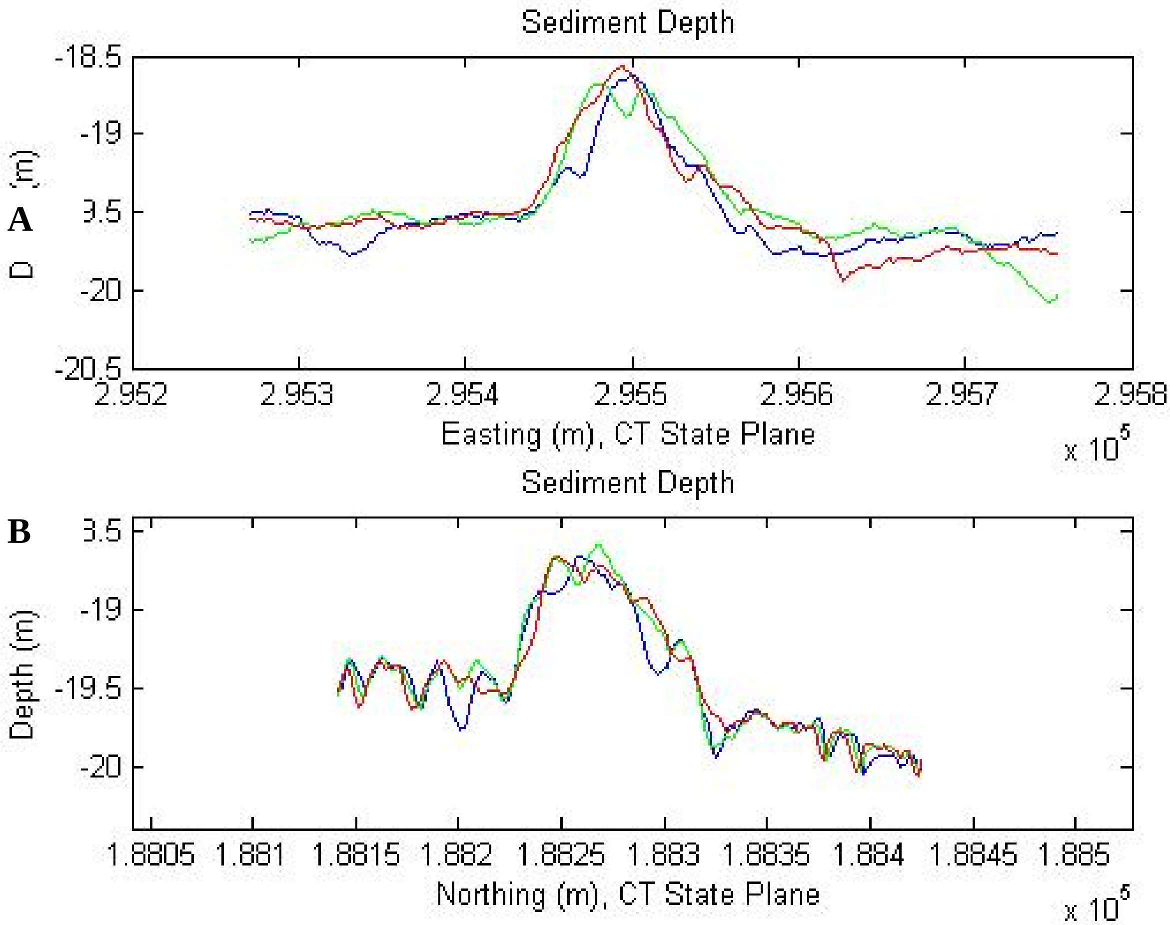

Figure 4-6. A: Three west-east transects (top panel) across the north central (purple), central (green), and south central (blue) sections of the FVP mound. B: Three north-south transects (bottom panel) across the west central (purple), central (green), and east central (blue) sections of the FVP mound. Transect data derived from 2005 multibeam bathymetric data (ENSR 2006).

surface (Figure 4-7). Over the long-term, however, recovery of the surface sediments, especially at flanks of the mound, has resulted in increased thickness of bioturbated, oxygenated sediment over the historical BRH material (e.g., Figure 3-11).

The 2005 data, as well as historical results, indicate that the effectiveness of MNR is in part a function of the original thickness of the dredged material. Cores collected in July 1983 recovered 86 cm of material at the center of the mound, with thicknesses ranging from 8 to 28 cm in cores collected from the flanks, 100 meters from the center of the mound (Morton et al. 1984). The flanks of the FVP mound, with thickness estimates of approximately 50 cm, have recovered to the extent that additional management or remediation is not necessary. The thin “cap” overlying the center mound deposit, as well as the history of periodic retrograde recovery, increased susceptibility to disturbance, active burrowing into BRH sediment, and potential increased bioavailability of the sandy BRH sediment suggest that a revised management approach for the FVP mound should be formulated and adopted. This approach, however, should consider the long-term value of the data collected thus far, and the opportunity for additional monitoring data that could be collected in the future by continuing to document the ongoing natural recovery process.

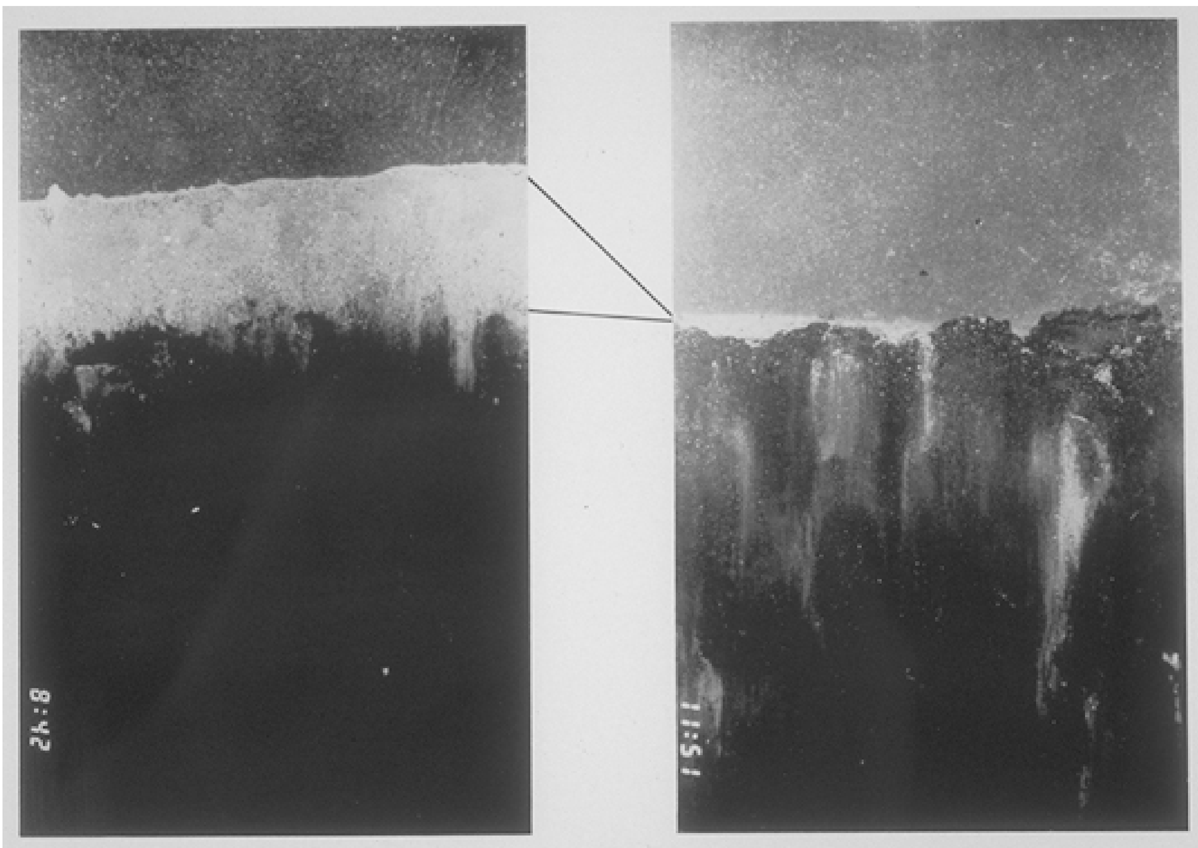

Figure 4-7. Sediment-profile images from the center of the FVP mound immediately before (left) and after (right) passage of Hurricane Gloria; note the loss of the reworked, oxidized layer of surface sediment (Parker and Revelas 1988).

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Twenty-two years of periodic monitoring at the uncapped FVP mound, in combination with a wealth of studies in this area of Long Island Sound, provide an unprecedented database to investigate the long-term environmental impact of a discrete mound of contaminated sediment. A clear picture of natural recovery of the mound, hampered by periodic events of surface sediment disturbance primarily on the central mound, has emerged from this investigation:

- Natural recovery of the historical flank sediments of the FVP mound has resulted in little biological and chemical difference relative to reference sediment, although a trace of Black Rock Harbor material remains, as indicated by the presence of sand and slightly elevated concentrations of chemical contaminants relative to reference.
- Ambient sedimentation is the dominant catalyst for this recovery. In addition, bioturbation is an important process in creating a mixing zone between historical dredged material and ambient sediment, as well as promoting oxygenation and successional recovery of the upper sediment layers. Observed burrowing into BRH material, however, suggests that bioturbation may also serve as a potential conduit for transport of contaminants to the surface, especially in the central mound area.
- The mound has received an estimated 5-10 cm of new sediment since mound disposal, but BRH deposits more than 0.5 meter thick in the center of the mound continue to affect biological recovery. The stable acoustic signature of FVP sediment above the 19.5-m contour demonstrates the stability of the mound, and that the distinct topographic signature and surface texture continues to differ from background sediment. The cumulative record of monitoring to date at the FVP location suggests that surface sediments at the center of the mound have been periodically resuspended, catalyzing occasional retrograde biological succession.
- Samples for benthic triad testing collected approximately 100 m west of the FVP mound center suggest that the mound surface sediments are not toxic to the benthos (ENSR 2001).
- There are unresolved issues and questions from the perspective of the FVP mound as an example of MNR. It is apparent that sedimentation is the critical process by which MNR will occur, but what is the potential impact of intense storms on the long-term sedimentation rate? How does the topography of the FVP mound, as well as its location near the boundary of the depositional and erosional areas of LIS, complicate prediction of the rate of long-term natural capping of the deposit? What are the driving local sediment transport processes, and how does the topography of the FVP mound affect them? Are the furrows geologically active? Why does the surface texture of the FVP mound remain so apparent in sidescan data following years of apparent sediment deposition? Does bioturbation, as well as the presence of sand in the BRH material, increase the

bioavailability of contaminants to the benthic environment? Finally, how does the thickness of BRH material affect the biological recovery rate, and how important is the biological recovery rate to MNR?

- One management alternative for the FVP mound is to cap, to augment the encapsulation of the BRH-associated contaminants in the center of the mound. Alternatively, a strategy of continued monitoring that is focused on both natural sedimentation processes in LIS, and MNR processes for dredged material deposits, may prove useful for a variety of applied and research objectives.

5.2 Recommendations

The decision to cap or not cap the FVP mound should be based on the balance between the risks of leaving the deposit uncapped and the potential for collecting useful information from the unique project circumstances. The environmental risk from the FVP mound is low to moderate, considering the small footprint of the mound, the current state of recovery, and the lack of toxicity of the sediments. If all information from the history of monitoring at the FVP location was already gleaned, it would be most wise to cap. The questions raised and enumerated above, however, suggest that there could be benefit from further monitoring, that is targeted to investigate specific questions. Some of the recommendations below are most likely outside of the scope of the DAMOS Program, but within the realm of the needs of the wider sediment management community:

- Advances in high-resolution acoustic imaging, in combination with point location SPI images, could help to elucidate the near-bottom sediment processes on and around the mound. Existing bathymetric data of the site (Table 1-1) could be further processed to evaluate changes in mound topography, although the different resolution of the single-beam and multi-beam systems might make this comparison problematic.

- A predictive model could be developed for natural recovery of the FVP area using existing data on diagenetic processes occurring at the mound, including sedimentation, bioturbation, consolidation and advection, as well as bottom current data. There is a wealth of USGS contaminant and physical properties data in the area (e.g., Moore et al. 2002), as well as acoustic surveys, that could be useful in placing the FVP mound in context of the larger sedimentary environments of LIS. The goal of this model could be to calculate the thickness of the ‘optimum’ cap developed through MNR, and how long cap development would take considering all available data as well as storm history of LIS.

- Pre- and poststorm monitoring data, as collected for Hurricane Gloria, would also be useful to quantify and closely track the predicted retrograde succession followed by normal benthic recovery. Similarly, high-resolution acoustic data could be used to map small changes in topography if high-quality data are collected in the same manner as in the 2005 survey during subsequent surveys.

While the most conservative approach would be to cap the FVP mound, data collected from continued monitoring could provide a unique opportunity to look at the suitability and effectiveness of employing MNR, as well as provide valuable data to the LIS research and environmental resource management communities on the impact of dredged material disposal mounds on the environment of LIS as a whole.

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APPENDIX A

Latitude/Longitude and Other Field Information

Table A-1

Sediment Profile Image Field Data

Sampling Area	Station	Latitude	Longitude	Date	Time	Water Depth (m)
CLIS-REF	R-01A	41.134144	-72.834988	6/29/2005	10:50:17	38.6
CLIS-REF	R-01B	41.134149	-72.835022	6/29/2005	10:51:36	38.6
CLIS-REF	R-01C	41.134108	-72.835050	6/29/2005	10:52:57	38.6
CLIS-REF	R-01D	41.134103	-72.834984	6/29/2005	11:02:06	38.6
CLIS-REF	R-01E	41.134117	-72.834985	6/29/2005	11:27:23	38.6
CLIS-REF	R-02A	41.136207	-72.834371	6/29/2005	11:51:20	37.8
CLIS-REF	R-02B	41.136241	-72.834357	6/29/2005	11:52:20	37.8
CLIS-REF	R-02C	41.136309	-72.834463	6/29/2005	11:54:07	37.8
CLIS-REF	R-03A	41.136179	-72.836834	6/29/2005	12:14:06	37.5
CLIS-REF	R-03B	41.136180	-72.836877	6/29/2005	12:16:57	37.5
CLIS-REF	R-03C	41.136179	-72.836928	6/29/2005	12:19:08	37.5
CLIS-REF	R-03D	41.136167	-72.836862	6/29/2005	12:20:40	37.5
CLIS-REF	R-04A	41.132646	-72.835827	6/29/2005	10:29:21	38.9
CLIS-REF	R-04B	41.132491	-72.835742	6/29/2005	10:30:28	38.9
CLIS-REF	R-04C	41.132627	-72.835856	6/29/2005	10:31:36	38.9
CLIS-REF	R-04D	41.132568	-72.835853	6/29/2005	10:40:02	38.9
CLIS-REF	R-05A	41.134187	-72.833362	6/29/2005	10:02:08	39.1
CLIS-REF	R-05B	41.134149	-72.833333	6/29/2005	10:04:35	39.1
CLIS-REF	R-05C	41.134172	-72.833351	6/29/2005	10:06:35	39.1
FVP Flank	SOF-01A	41.156999	-72.861824	6/29/2005	15:47:18	30.7
FVP Flank	SOF-01B	41.157109	-72.861817	6/29/2005	15:48:47	30.7
FVP Flank	SOF-01C	41.157103	-72.861842	6/29/2005	15:49:38	30.7
FVP Flank	SOF-02A	41.156674	-72.863072	6/29/2005	15:56:33	30.9
FVP Flank	SOF-02B	41.156754	-72.862962	6/29/2005	15:57:55	30.9
FVP Flank	SOF-03A	41.158155	-72.862987	6/29/2005	16:10:24	30.9
FVP Flank	SOF-03B	41.158208	-72.862980	6/29/2005	16:11:20	30.7
FVP Flank	SOF-03C	41.158209	-72.862954	6/29/2005	16:12:12	30.7
FVP Flank	SOF-04A	41.155379	-72.862105	6/29/2005	12:55:19	30.7
FVP Flank	SOF-04B	41.155403	-72.862052	6/29/2005	12:56:03	29.7
FVP Flank	SOF-04C	41.155459	-72.861963	6/29/2005	12:56:53	29.7
FVP Flank	SOF-05A	41.155230	-72.859917	6/29/2005	13:04:54	29.7
FVP Flank	SOF-05B	41.155277	-72.859913	6/29/2005	13:05:47	29.9
FVP Flank	SOF-05C	41.155348	-72.859950	6/29/2005	13:06:46	29.9
FVP Flank	SOF-06A	41.156755	-72.859500	6/29/2005	15:29:48	29.9
FVP Flank	SOF-06B	41.156805	-72.859452	6/29/2005	15:30:35	30.7
FVP Flank	SOF-06C	41.156822	-72.859478	6/29/2005	15:31:40	30.7
FVP Flank	SOF-07A	41.157826	-72.860788	6/29/2005	15:36:47	30.7
FVP Flank	SOF-07B	41.157903	-72.860779	6/29/2005	15:37:58	30.7
FVP Flank	SOF-07C	41.157862	-72.860717	6/29/2005	15:39:21	30.7

Table A-1 (continued)

Sediment Profile Image Field Data

Sampling Area	Station	Latitude	Longitude	Date	Time	Water Depth (m)
FVP Flank	SOF-08A	41.156446	-72.862037	6/29/2005	13:54:58	30.7
FVP Flank	SOF-08B	41.156461	-72.862074	6/29/2005	13:55:54	28.8
FVP Flank	SOF-08C	41.156410	-72.862088	6/29/2005	13:57:26	28.8
FVP Flank	SOF-09A	41.157440	-72.863491	6/29/2005	16:05:10	28.8
FVP Flank	SOF-09B	41.157371	-72.863480	6/29/2005	16:06:04	30.9
FVP Flank	SOF-09C	41.157405	-72.863533	6/29/2005	16:06:47	30.9
FVP Flank	SOF-10A	41.155816	-72.862610	6/29/2005	12:42:05	30.9
FVP Flank	SOF-10B	41.155813	-72.862637	6/29/2005	12:43:16	29.4
FVP Flank	SOF-10C	41.155773	-72.862621	6/29/2005	12:44:39	29.4
FVP Flank	SOF-O2C	41.156760	-72.862979	6/29/2005	15:58:47	29.4
FVP Mound	SON-01A	41.156621	-72.860870	6/29/2005	14:41:45	30.2
FVP Mound	SON-01B	41.156606	-72.860907	6/29/2005	14:43:11	30.2
FVP Mound	SON-01C	41.156600	-72.860909	6/29/2005	14:44:02	30.2
FVP Mound	SON-02A	41.156563	-72.861060	6/29/2005	14:51:47	29.9
FVP Mound	SON-02B	41.156569	-72.861043	6/29/2005	14:52:44	29.9
FVP Mound	SON-02C	41.156593	-72.861048	6/29/2005	14:53:29	29.9
FVP Mound	SON-03A	41.156259	-72.861087	6/29/2005	13:31:39	28.3
FVP Mound	SON-03B	41.156303	-72.861053	6/29/2005	13:32:22	28.3
FVP Mound	SON-03C	41.156235	-72.861043	6/29/2005	13:33:48	28.3
FVP Mound	SON-04A	41.156336	-72.860337	6/29/2005	13:39:43	28.9
FVP Mound	SON-04B	41.156378	-72.860359	6/29/2005	13:40:42	28.9
FVP Mound	SON-04C	41.156418	-72.860371	6/29/2005	13:41:25	28.9
FVP Mound	SON-05A	41.156677	-72.860473	6/29/2005	15:22:29	30.2
FVP Mound	SON-05B	41.156707	-72.860406	6/29/2005	15:23:55	30.2
FVP Mound	SON-05C	41.156677	-72.860405	6/29/2005	15:24:37	30.2
FVP Mound	SON-06A	41.156417	-72.861335	6/29/2005	13:46:49	28.6
FVP Mound	SON-06A	41.156494	-72.860778	6/29/2005	14:14:22	28.6
FVP Mound	SON-06B	41.156503	-72.861308	6/29/2005	13:47:39	28.6
FVP Mound	SON-06B	41.156515	-72.860741	6/29/2005	14:15:49	28.6
FVP Mound	SON-06C	41.156458	-72.861328	6/29/2005	13:49:16	28.6
FVP Mound	SON-06C	41.156470	-72.860766	6/29/2005	14:17:43	28.6
FVP Mound	SON-07A	41.156421	-72.861302	6/29/2005	14:03:27	28.8
FVP Mound	SON-07B	41.156475	-72.861309	6/29/2005	14:04:16	28.8
FVP Mound	SON-07C	41.156462	-72.861392	6/29/2005	14:06:16	28.8
FVP Mound	SON-09A	41.156220	-72.860814	6/29/2005	13:12:23	28.6
FVP Mound	SON-09B	41.156274	-72.860763	6/29/2005	13:13:07	28.6
FVP Mound	SON-09C	41.156229	-72.860708	6/29/2005	13:14:12	28.6
FVP Mound	SON-10A	41.156819	-72.860706	6/29/2005	14:23:59	30
FVP Mound	SON-10B	41.156792	-72.860670	6/29/2005	14:25:12	30
FVP Mound	SON-10C	41.156839	-72.860663	6/29/2005	14:25:53	30

Table A-2

Sediment Coring Field Data

Sampling Area	Station	Latitude	Longitude	Date	Time	Penetration (cm)
FVP Mound	B-03	41.1562335	-72.8610780	6/28/2005	10:33:36	28
FVP Mound	B-04	41.1567481	-72.8603360	6/28/2005	11:16:32	30
FVP Mound	B-05	41.1564207	-72.8603552	6/28/2005	12:12:32	30
FVP Flank	B-06	41.1564758	-72.8621004	6/28/2005	12:54:52	30
FVP Flank	B-07	41.1570504	-72.8617971	6/28/2005	13:37:24	39
CLIS-REF	R-01	41.1341159	-72.8351421	6/28/2005	14:22:28	27
CLIS-REF	R-02	41.1362605	-72.8345242	6/28/2005	15:06:13	25
CLIS-REF	R-03	41.1360971	-72.8368444	6/28/2005	15:39:31	28
CLIS-REF	R-04	41.1325741	-72.8359906	6/28/2005	16:01:20	32
CLIS-REF	R-05	41.1341609	-72.8335152	6/28/2005	16:36:23	22
FVP Mound	C-01a	41.1566294	-72.8608501	6/28/2005	16:58:05	158
FVP Mound	C-01b	41.1565865	-72.8608959	6/28/2005	17:18:05	Full
FVP Mound	C-01c	41.1565662	-72.8608107	6/28/2005	17:28:07	Full
FVP Mound	C-01d	41.1565322	-72.8608312	6/28/2005	17:55:19	Full
FVP Mound	C-02a	41.1566219	-72.8609746	6/28/2005	18:06:37	Full
FVP Mound	C-02b	41.1565167	-72.8610867	6/28/2005	18:17:30	Full
FVP Mound	C-02c	41.1565085	-72.8610051	6/28/2005	18:36:29	Full
FVP Mound	C-02d	41.1565154	-72.8610638	6/28/2005	18:47:58	Full

APPENDIX B

Core Log Descriptions

Overview

The gravity cores for Stations C-01 and C-02, four replicate cores each, were brought to the core processing laboratory at the URI Graduate School of Oceanography (GSO) for splitting and subsampling. From each station, the two cores with the greatest recovery were split, with one half of each core archived under refrigeration for the automated core logging system at the URI/GSO core laboratory. The remaining half was subsampled, with the sediment removed contributing to the sediment aliquot jarred for subsequent chemical analyses.

Station C-01

Portions of three of the four retained cores were composited to produce sediment for chemical analysis. The cores processed were collected at: 16:57, 17:18 and 17:26. The core collected at 17:54 was not used and discarded due to the high degree of disturbance and poor recovery relative to the other cores. The two cores that were logged using the automated system were the cores collected at 16:54 and 17:18. One half of each of these cores was used to contribute to the sediment needed for chemical analyses. In contrast, the entire core volume collected at 17:26 was used for chemical analyses.

Unlike the box cores, which were subsampled in fixed 5-cm increments, the gravity cores were subsampled based on observed stratigraphy. The cores from Station C-01 were subsampled to produce four discrete sampling horizons that were designated C-01A, C-01B, C-01C and C-01D. The A-D designations for station C-01 refer to strata within the stations. Each of the strata samples (A-D) is a composite sample comprised of sediment from each of the three cores. The stratum from each core contributing to the composite is detailed in the attached table. Descriptions of the strata are also included.

The determination of strata for subsampling was based on the syntactical sequence of sediments observed within each of the three cores. The surface layer (designated “A”) varied in thickness from 6-14 cm and consisted of dark gray to black, organic, sulfidic, slightly sandy silt/clays. The surface layer also had a slight odor of PAH (specifically HPAH). The dark gray to black layer was underlain by a 16- to 20- cm thick layer of loose to firm, tan to light gray silt/clays. The upper half of this layer was used for the “B” sample and the lower half of this layer was used as the “C” sample. It should be emphasized that this layer was consistent across all cores collected from Station C-01, as well as Station C-02. The material below this tan layer contributed to the “D” sample. Sediment in the “D” layer was black, sulfidic, very sandy silt/clay with distinct to strong odors of tar/PAH, and was clearly the Black Rock Harbor dredged material. Material below the “D” layer (as detailed in the attached spreadsheet) was archived as the “E” sample.

It is unclear whether the sediment represented in the “A” strata is truly representative of surface sediment at the coring location. The lack of any oxidized sediment in this layer, coupled with mixed sand and silt and PAH/sulfide odors consistent with the BRH dredged material at depth suggests that the “A” layer may wholly or in part represent disturbed sediment from depth that bypassed the “true” sediment surface when the gravity core was brought on board. When the gravity core was retrieved, it had to be laid on its side to remove the core liner from the barrel. Furthermore, when the core liner was removed from the barrel the overlying water was black and turbid. The “E” sample was archived for this reason.

Station C-02

All four cores collected from Station C-02 were used to produce the composite “A-D” chemistry samples. The stratigraphy observed in all four cores from C-02 was similar and also nearly identical to the stratigraphy observed at Station C-01. The two cores that were submitted to laboratory for automated logging and subsequent archiving were: 18:05 and 18:35.

Procedures used from processing cores from Station C-02 were identical to those detailed for Station C-01.

Gravity Core Descriptions and Processing Log

Station C-01

C-01A

Core Time	Strata Sampled	Description:
16:54	0-14 cm	Loose, wet, black, slightly sandy silt with strong hydrogen sulfide odor and slight PAH (HPAH) odor.
17:18	0-6 cm	
17:26	0-13 cm	

C-01B

Core Time	Strata Sampled	Description:
16:54	14-23 cm	Tan to light gray, firm, moist, silty clay with very slight hydrogen sulfide odor, no PAH odor. Minor amounts of wood/leaf fragments.
17:18	6-14 cm	
17:26	13-23 cm	

C-01C

Core Time	Strata Sampled	Description:
16:54	23-32 cm	Tan to light gray, firm, moist, silty clay with very slight hydrogen sulfide odor, no PAH odor. Minor amounts of wood/leaf fragments.

Core Time	Strata Sampled	Description:
17:18	14-22 cm	
17:26	23-33 cm	

C-01D

Core Time	Strata Sampled	Description:
16:54	32-52 cm	Firm, wet, black, very sandy silt with strong tar/HPAH odor and strong hydrogen sulfide odor. Very dissimilar to strata B/C.
17:18	22-43 cm	
17:26	33-54 cm	

C-01E Archived

Core Time	Strata Sampled	Description:
16:54	52-64 cm	Firm, wet, black, very sandy silt with strong tar/HPAH odor and strong hydrogen sulfide odor. Very dissimilar to strata B/C.
17:18	43-55 cm	
17:26	not sampled-insufficient material	

Station C-02

C-02A

Core Time	Strata Sampled	Description:
18:05	0-14cm	Loose, wet, black, slightly sandy silt with strong hydrogen sulfide odor and slight PAH (HPAH) odor.
18:16	0-10 cm	
18:35	0-13 cm	
18:47	0-13 cm	

C-02B

Core Time	Strata Sampled	Description:
18:05	14-22 cm	Tan to light gray, firm, moist, silty clay with very slight hydrogen sulfide odor, very slight PAH odor.
18:16	10-16 cm	
18:35	13-23 cm	
18:47	13-18 cm	

C-02C

Core Time	Strata Sampled	Description:
18:05	22-30 cm	Tan to light gray, firm, moist, silty clay with very slight hydrogen sulfide odor, very slight PAH odor.
18:16	16-22 cm	

18:35	23-33 cm	
18:47	18-23 cm	

C-02D

Core Time	Strata Sampled	Description:
18:05	30-45 cm	Firm, wet, black, very sandy silt with strong tar/HPAH odor and strong hydrogen sulfide odor, minor wood fragments. Very dissimilar to strata B/C.
18:16	22-37 cm	
18:35	33-45 cm	
18:47	23-34 cm	

C-02E Archived

Core Time	Strata Sampled	Description:
18:05	45-55 cm	Firm, wet, black, very sandy silt with strong tar/HPAH odor and strong hydrogen sulfide odor, minor wood fragments. Very dissimilar to strata B/C.
18:16	37-47 cm	
18:35	45-49 cm	
18:47	34-36 cm	

APPENDIX C

Sediment Profile Imaging Data

Station	# of weights per side	Stop collar setting (inches)	DATE	TIME	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE	Penetration Area (sq.cm)
R-01 A	1	13	6/29/2005	10:48:47	14.35	>4	2	>4	>4 - 2	204.34
R-01 B	1	13	6/29/2005	10:50:07	14.35	>4	2	>4	>4 - 2	214.59
R-01 E	1	13	6/29/2005	11:24:36	14.35	>4	2	>4	>4 - 2	202.40
R-02 A	1	13	6/29/2005	11:48:30	14.35	>4	2	>4	>4 - 2	199.70
R-02 B	1	13	6/29/2005	11:49:29	14.35	>4	2	>4	>4 - 2	221.85
R-02 C	1	13	6/29/2005	11:51:06	14.35	>4	2	>4	>4 - 2	208.16
R-03 A	1	13	6/29/2005	12:11:18	14.35	>4	2	>4	>4 - 2	208.45
R-03 B	1	13	6/29/2005	12:14:07	14.35	>4	2	>4	>4 - 2	228.66
R-03 C	1	13	6/29/2005	12:16:18	14.35	>4	2	>4	>4 - 2	239.89
R-04 A	1	13	6/29/2005	10:27:34	14.35	>4	2	>4	>4 - 2	224.82
R-04 B	1	13	6/29/2005	10:28:44	14.35	>4	2	>4	>4 - 2	191.88
R-04 D	1	13	6/29/2005	10:37:13	14.35	>4	2	>4	>4 - 2	197.50
R-05 A	1	12.5	6/29/2005	9:59:18	14.35	>4	2	>4	>4 - 2	183.04
R-05 B	1	12.5	6/29/2005	10:01:45	14.35	>4	2	>4	>4 - 2	215.94
R-05 C	1	12.5	6/29/2005	10:03:43	14.35	>4	2	>4	>4 - 2	206.54
SOF-01 A	1	13	6/29/2005	15:44:27	14.35	>4	2	>4	>4 - 2	226.79
SOF-01 B	1	13	6/29/2005	15:45:57	14.35	>4	2	>4	>4 - 2	208.43

Station	# of weights per side	Stop collar setting (inches)	DATE	TIME	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE	Penetration Area (sq.cm)
SOF-01 C	1	13	6/29/2005	15:46:46	14.35	>4	2	>4	>4 - 2	249.86
SOF-02 A	1	13	6/29/2005	15:53:43	14.35	>4	2	>4	>4 - 2	209.85
SOF-02 B	1	13	6/29/2005	15:55:05	14.35	>4	2	>4	>4 - 2	244.61
SOF-02 C	1	13	6/29/2005	15:55:56	14.35	>4	2	>4	>4 - 2	173.98
SOF-03 A	1	13	6/29/2005	16:07:34	14.35	>4	2	>4	>4 - 2	251.50
SOF-03 B	1	13	6/29/2005	16:08:29	14.35	>4	2	>4	>4 - 2	246.28
SOF-03 C	1	13	6/29/2005	16:09:22	14.35	>4	2	>4	>4 - 2	246.09
SOF-04 A	1	13	6/29/2005	12:52:29	14.35	>4	2	>4	>4 - 2	206.84
SOF-04 B	1	13	6/29/2005	12:53:14	14.35	>4	2	>4	>4 - 2	211.69
SOF-04 C	1	13	6/29/2005	12:54:03	14.35	>4	2	>4	>4 - 2	219.51
SOF-05 A	1	13	6/29/2005	13:02:04	14.35	>4	2	>4	>4 - 2	219.29
SOF-05 B	1	13	6/29/2005	13:02:57	14.35	>4	2	>4	>4 - 2	213.77
SOF-05 C	1	13	6/29/2005	13:03:56	14.35	>4	2	>4	>4 - 2	228.81
SOF-06 A	1	13	6/29/2005	15:26:57	14.35	>4	2	>4	>4 - 2	208.12
SOF-06 B	1	13	6/29/2005	15:27:45	14.35	>4	2	>4	>4 - 2	208.15
SOF-06 C	1	13	6/29/2005	15:28:50	14.35	>4	2	>4	>4 - 2	221.24

Station	# of weights per side	Stop collar setting (inches)	DATE	TIME	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE	Penetration Area (sq.cm)
SOF-07 A	1	13	6/29/2005	15:33:49	14.35	>4	2	>4	>4 - 2	225.47
SOF-07 B	1	13	6/29/2005	15:35:08	14.35	>4	2	>4	>4 - 2	219.10
SOF-07 C	1	13	6/29/2005	15:36:31	14.35	3-2/>4	1	>4	>4 - 1	231.53
SOF-08 A	1	13	6/29/2005	13:52:08	14.35	>4	2	>4	>4 - 2	227.61
SOF-08 B	1	13	6/29/2005	13:53:04	14.35	>4	2	>4	>4 - 2	230.46
SOF-08 C	1	13	6/29/2005	13:54:36	14.35	>4	2	>4	>4 - 2	221.33
SOF-09 A	1	13	6/29/2005	16:02:20	14.35	>4	2	>4	>4 - 2	227.72
SOF-09 B	1	13	6/29/2005	16:03:14	14.35	>4	2	>4	>4 - 2	231.51
SOF-09 C	1	13	6/29/2005	16:03:56	14.35	>4	2	>4	>4 - 2	215.47
SOF-10 A	1	13	6/29/2005	12:39:16	14.35	>4	2	>4	>4 - 2	228.84
SOF-10 B	1	13	6/29/2005	12:40:25	14.35	>4	2	>4	>4 - 2	256.01
SOF-10 C	1	13	6/29/2005	12:41:49	14.35	>4	2	>4	>4 - 2	248.66
SON-01 A	1	13	6/29/2005	14:38:55	14.35	>4	2	>4	>4 - 2	214.90
SON-01 B	1	13	6/29/2005	14:40:21	14.35	>4	2	>4	>4 - 2	176.35
SON-01 C	1	13	6/29/2005	14:41:12	14.35	>4	2	>4	>4 - 2	203.93
SON-02 A	1	13	6/29/2005	14:48:56	14.35	>4	2	>4	>4 - 2	190.94
SON-02 B	1	13	6/29/2005	14:49:53	14.35	>4-3	1	>4	>4 - 1	160.74

Station	# of weights per side	Stop collar setting (inches)	DATE	TIME	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE	Penetration Area (sq.cm)
SON-02 C	1	13	6/29/2005	14:50:39	14.35	4-3	1	>4	>4 - 1	130.82
SON-03 A	1	13	6/29/2005	13:28:49	14.35	4-3	1	>4	>4 - 1	210.78
SON-03 B	1	13	6/29/2005	13:29:32	14.35	>4/4-3	1	>4	>4 - 1	228.04
SON-03 C	1	13	6/29/2005	13:30:58	14.35	4-3/>4/4-3	1	>4	>4 - 1	210.99
SON-04 A	1	13	6/29/2005	13:36:53	14.35	4-3/>4	1	>4	>4 - 1	246.38
SON-04 B	1	13	6/29/2005	13:37:51	14.35	4-3	1	>4	>4 - 1	216.87
SON-04 C	1	13	6/29/2005	13:38:35	14.35	>4	2	>4	>4 - 2	203.35
SON-05 A	1	13	6/29/2005	15:19:39	14.35	>4	2	>4	>4 - 2	211.78
SON-05 B	1	13	6/29/2005	15:21:05	14.35	>4	1	>4	>4 - 1	237.05
SON-05 C	1	13	6/29/2005	15:21:47	14.35	>4	1	>4	>4 - 1	216.31
SON-06 A	1	13	6/29/2005	14:11:30	14.35	>4	1	>4	>4 - 1	202.97
SON-06 B	1	13	6/29/2005	14:12:58	14.35	>4	1	>4	>4 - 1	201.31
SON-06 C	1	13	6/29/2005	14:14:53	14.35	>4/4-3	1	>4	>4 - 1	210.60
SON-07 A	1	13	6/29/2005	14:00:37	14.35	>4/4-3	1	>4	>4 - 1	223.71

Station	# of weights per side	Stop collar setting (inches)	DATE	TIME	Calibration Constant	Grain Size Major Mode (phi)	Grain Size Maximum (phi)	Grain Size Minimum (phi)	GrnSize RANGE	Penetration Area (sq.cm)
SON-07 B	1	13	6/29/2005	14:01:26	14.35	>4	1	>4	>4 - 1	223.70
SON-07 C	1	13	6/29/2005	14:03:26	14.35	>4	2	>4	>4 - 2	221.25
SON-08 A	1	13	6/29/2005	13:43:59	14.35	>4	1	>4	>4 - 1	209.71
SON-08 B	1	13	6/29/2005	13:44:49	14.35	>4	1	>4	>4 - 1	204.46
SON-08 C	1	13	6/29/2005	13:46:26	14.35	>4	1	>4	>4 - 1	205.37
SON-09 A	1	13	6/29/2005	13:09:33	14.35	>4/4-3	1	>4	>4 - 1	202.41
SON-09 B	1	13	6/29/2005	13:10:17	14.35	>4	1	>4	>4 - 1	219.80
SON-09 C	1	13	6/29/2005	13:11:22	14.35	>4	1	>4	>4 - 1	225.97
SON-10 A	1	13	6/29/2005	14:21:09	14.35	>4	1	>4	>4 - 1	243.65
SON-10 B	1	13	6/29/2005	14:22:21	14.35	>4	1	>4	>4 - 1	230.21
SON-10 C	1	13	6/29/2005	14:23:02	14.35	>4	1	>4	>4 - 1	218.84

Station	AV PEN (cm)	MINPEN (cm)	MAXPEN (cm)	Boundary Roughness (cm)	Boundary Roughness Type	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE
R-01 A	14.24	14.04	14.49	0.45	Biological	56.78	3.96	0	-	None
R-01 B	14.95	14.69	15.03	0.34	Biological	51.40	3.58	1	Oxidized	None
R-01 E	14.10	13.82	14.21	0.39	Biological	64.84	4.52	3	Oxidized	None
R-02 A	13.91	12.84	14.75	1.91	Physical	45.85	3.19	>10	Oxidized	None
R-02 B	15.46	15.31	15.64	0.34	Biological	65.63	4.57	0	-	None
R-02 C	14.50	13.93	14.66	0.73	Biological	57.39	4.00	0	-	None
R-03 A	14.52	14.24	14.69	0.45	Biological	58.47	4.07	1	Oxidized	None
R-03 B	15.93	15.36	16.29	0.93	Biological	60.54	4.22	>10	Oxidized	None
R-03 C	16.71	16.32	17.53	1.21	Biological	62.60	4.36	2	Oxidized	None
R-04 A	15.66	15.25	16.18	0.93	Biological	69.82	4.86	0	-	None
R-04 B	13.37	12.92	13.68	0.76	Biological	54.97	3.83	2	Reduced	None
R-04 D	13.76	13.45	14.13	0.67	Biological	58.78	4.10	0	-	None
R-05 A	12.75	12.33	13.23	0.90	Biological	57.87	4.03	0	-	None
R-05 B	15.05	14.60	15.48	0.87	Biological	56.30	3.92	>10	Ox and Red	None
R-05 C	14.39	13.76	14.80	1.04	Biological	59.18	4.12	0	-	None
SOF-01 A	15.80	15.28	16.32	1.04	Biological	48.79	3.40	>10	Ox and Red	None
SOF-01 B	14.52	14.24	14.72	0.48	Biological	43.07	3.00	>10	Oxidized	None

Station	AV PEN (cm)	MINPEN (cm)	MAXPEN (cm)	Boundary Roughness (cm)	Boundary Roughness Type	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE
SOF-01 C	17.41	17.05	17.53	0.48	Biological	41.97	2.92	>10	Ox and Red	None
SOF-02 A	14.62	14.18	14.86	0.67	Biological	51.32	3.58	3	Oxidized	None
SOF-02 B	17.04	16.21	17.58	1.38	Biological	40.55	2.83	0	-	None
SOF-02 C	12.12	11.91	12.33	0.42	Biological	26.03	1.81	1	Reduced	None
SOF-03 A	17.52	17.41	17.72	0.31	Biological	31.88	2.22	>10	Ox and Red	None
SOF-03 B	17.16	16.77	17.50	0.73	Biological	38.43	2.68	>10	Ox and Red	None
SOF-03 C	17.15	17.10	17.41	0.31	Biological	40.12	2.80	4	Oxidized	None
SOF-04 A	14.41	13.26	14.94	1.69	Biological	36.74	2.56	0	-	None
SOF-04 B	14.75	14.58	14.97	0.39	Biological	51.48	3.59	6	Oxidized	None
SOF-04 C	15.30	15.22	15.53	0.31	Biological	40.92	2.85	>10	Oxidized	None
SOF-05 A	15.28	15.14	15.50	0.37	Biological	26.96	1.88	0	-	None
SOF-05 B	14.90	14.55	15.08	0.53	Biological	42.59	2.97	4	Reduced	None
SOF-05 C	15.94	15.73	15.98	0.25	Biological	43.02	3.00	8	3 Red - 5 Ox	None
SOF-06 A	14.50	14.24	14.60	0.37	Biological	44.00	3.07	7	Oxidized	None
SOF-06 B	14.50	14.44	14.60	0.17	Biological	42.66	2.97	3	1 Red - 3 Ox	None
SOF-06 C	15.42	15.19	15.81	0.62	Biological	36.22	2.52	>10	Reduced	None

Station	AV PEN (cm)	MINPEN (cm)	MAXPEN (cm)	Boundary Roughness (cm)	Boundary Roughness Type	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE
SOF-07 A	15.71	15.11	16.21	1.10	Biological	34.02	2.37	>10	Oxidized	None
SOF-07 B	15.27	15.05	15.53	0.48	Biological	36.10	2.52	0	-	None
SOF-07 C	16.13	15.62	16.37	0.76	Ind	41.20	2.87	1	Reduced	None
SOF-08 A	15.86	15.62	16.09	0.48	Biological	35.45	2.47	0	-	None
SOF-08 B	16.06	15.22	16.57	1.35	Biological	34.49	2.40	0	-	None
SOF-08 C	15.42	14.80	16.23	1.43	Biological	18.17	1.27	2	Oxidized	None
SOF-09 A	15.87	15.56	16.15	0.59	Biological	46.00	3.21	>10	Oxidized	None
SOF-09 B	16.13	15.81	16.60	0.79	Biological	49.01	3.41	>10	Oxidized	None
SOF-09 C	15.01	14.94	15.05	0.11	Biological	41.34	2.88	>10	Oxidized	None
SOF-10 A	15.94	15.36	16.32	0.95	Biological	39.23	2.73	0	-	None
SOF-10 B	17.84	17.39	17.86	0.48	Biological	30.08	2.10	2	Oxidized	None
SOF-10 C	17.33	16.99	17.55	0.56	Biological	34.94	2.43	0	-	None
SON-01 A	14.97	14.83	15.08	0.25	Biological	18.96	1.32	3	Oxidized	1
SON-01 B	12.29	12.02	12.50	0.48	Biological	30.94	2.16	>10	Oxidized	None
SON-01 C	14.21	13.48	14.55	1.07	Biological	37.22	2.59	>10	Oxidized	None
SON-02 A	13.30	13.14	13.43	0.28	Biological	47.16	3.29	0	-	None
SON-02 B	11.20	10.84	11.57	0.73	Biological	29.86	2.08	0	-	None

Station	AV PEN (cm)	MINPEN (cm)	MAXPEN (cm)	Boundary Roughness (cm)	Boundary Roughness Type	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE
SON-02 C	9.11	8.68	10.05	1.37	Physical	Ind	Indeterminate	0	-	None
SON-03 A	14.69	14.41	15.00	0.59	Biological	20.04	1.40	6	4 Red - 2 Ox	None
SON-03 B	15.89	15.28	16.09	0.81	Biological	28.18	1.96	3	Oxidized	None
SON-03 C	14.70	14.52	14.97	0.45	Biological	27.06	1.89	0	-	None
SON-04 A	17.17	17.05	17.39	0.34	Biological	23.93	1.67	1	Reduced	None
SON-04 B	15.11	14.60	15.98	1.38	Physical	22.10	1.54	>10	Reduced	None
SON-04 C	14.17	13.99	14.27	0.28	Biological	38.65	2.69	0	-	None
SON-05 A	14.76	14.58	15.03	0.45	Biological	24.30	1.69	4	2 Red - 2 ox	None
SON-05 B	16.52	15.81	17.10	1.29	Biological	38.87	2.71	0	-	None
SON-05 C	15.07	14.41	15.36	0.95	Biological	32.75	2.28	3	Reduced	None
SON-06 A	14.14	13.40	14.77	1.38	Biological	29.05	2.02	7	Oxidized	None
SON-06 B	14.03	13.76	14.16	0.39	Biological	29.96	2.09	1	Oxidized	None
SON-06 C	14.67	14.52	15.03	0.51	Biological	37.21	2.59	6	Oxidized	None
SON-07 A	15.59	15.42	15.67	0.25	Biological	32.11	2.24	>10	Red and Ox	None

Station	AV PEN (cm)	MINPEN (cm)	MAXPEN (cm)	Boundary Roughness (cm)	Boundary Roughness Type	RPD Area (sq.cm)	Mean RPD (cm)	Mud Clast Number	Mud Clast State	METHANE
SON-07 B	15.59	15.19	15.87	0.67	Biological	35.43	2.47	>10	Oxidized	None
SON-07 C	15.42	15.03	15.76	0.73	Biological	48.63	3.39	9	Red and Ox	None
SON-08 A	14.61	14.16	14.91	0.76	Biological	33.88	2.36	1	Oxidized	None
SON-08 B	14.25	14.07	14.44	0.37	Biological	28.70	2.00	>10	Oxidized	None
SON-08 C	14.31	14.16	14.49	0.34	Biological	36.25	2.53	4	Oxidized	None
SON-09 A	14.10	13.59	14.60	1.01	Biological	29.64	2.07	0	-	None
SON-09 B	15.31	15.11	15.50	0.39	Biological	30.96	2.16	0	-	None
SON-09 C	15.74	15.59	16.07	0.48	Biological	27.17	1.89	5	Oxidized	None
SON-10 A	16.98	16.46	17.33	0.87	Biological	45.55	3.17	1	Reduced	None
SON-10 B	16.04	15.67	16.54	0.87	Biological	23.23	1.62	0	-	None
SON-10 C	15.25	14.89	15.53	0.65	Biological	26.16	1.82	0	-	None

Station	TOTAL DM AREA	TOTAL DM MEAN	TOTAL DM MIN	TOTAL DM MAX	Low DO?	Feeding Void #	Void Minimum Depth (cm)	Void Maximum Depth (cm)	Void Average Depth (cm)
R-01 A	0.00	0.00	0.00	0.00	No	5	3.40	13.48	8.44
R-01 B	0.00	0.00	0.00	0.00	No	6	6.32	13.62	9.97
R-01 E	0.00	0.00	0.00	0.00	No	3	7.50	11.68	9.59
R-02 A	0.00	0.00	0.00	0.00	No	6	4.63	10.67	7.65
R-02 B	0.00	0.00	0.00	0.00	No	7	2.92	12.13	7.53
R-02 C	0.00	0.00	0.00	0.00	No	3	2.84	13.59	8.22
R-03 A	0.00	0.00	0.00	0.00	No	4	1.91	12.61	7.26
R-03 B	0.00	0.00	0.00	0.00	No	3	2.08	14.58	8.33
R-03 C	0.00	0.00	0.00	0.00	No	2	1.85	16.26	9.06
R-04 A	0.00	0.00	0.00	0.00	No	3	4.69	12.81	8.75
R-04 B	0.00	0.00	0.00	0.00	No	1	11.18	11.35	11.26
R-04 D	0.00	0.00	0.00	0.00	No	3	7.56	13.23	10.39
R-05 A	0.00	0.00	0.00	0.00	No	3	5.14	7.30	6.22
R-05 B	0.00	0.00	0.00	0.00	No	3	8.34	14.97	11.66
R-05 C	0.00	0.00	0.00	0.00	No	3	1.10	10.34	5.72
SOF-01 A	0.00	0.00	0.00	0.00	No	5	6.57	13.79	10.18
SOF-01 B	0.00	0.00	0.00	0.00	No	4	5.98	14.69	10.34

Station	TOTAL DM AREA	TOTAL DM MEAN	TOTAL DM MIN	TOTAL DM MAX	Low DO?	Feeding Void #	Void Minimum Depth (cm)	Void Maximum Depth (cm)	Void Average Depth (cm)
SOF-01 C	0.00	0.00	0.00	0.00	No	4	3.31	16.52	9.92
SOF-02 A	0.00	0.00	0.00	0.00	No	4	6.46	12.73	9.59
SOF-02 B	0.00	0.00	0.00	0.00	No	6	3.01	12.67	7.84
SOF-02 C	0.00	0.00	0.00	0.00	No	5	3.34	11.85	7.60
SOF-03 A	0.00	0.00	0.00	0.00	No	5	4.38	16.32	10.35
SOF-03 B	0.00	0.00	0.00	0.00	No	3	3.88	15.31	9.59
SOF-03 C	0.00	0.00	0.00	0.00	No	2	11.91	16.54	14.23
SOF-04 A	0.00	0.00	0.00	0.00	No	5	5.95	13.87	9.91
SOF-04 B	0.00	0.00	0.00	0.00	No	3	3.57	12.64	8.10
SOF-04 C	0.00	0.00	0.00	0.00	No	3	3.51	9.49	6.50
SOF-05 A	0.00	0.00	0.00	0.00	No	1	9.18	9.72	9.45
SOF-05 B	0.00	0.00	0.00	0.00	No	3	7.19	12.05	9.62
SOF-05 C	0.00	0.00	0.00	0.00	No	5	3.96	15.36	9.66
SOF-06 A	106.13	7.39	7.95	8.79	No	4	6.57	13.43	10.00
SOF-06 B	62.49	4.35	3.37	5.06	No	5	5.20	13.03	9.11
SOF-06 C	73.60	5.13	3.79	5.48	No	6	5.03	11.88	8.45

Station	TOTAL DM AREA	TOTAL DM MEAN	TOTAL DM MIN	TOTAL DM MAX	Low DO?	Feeding Void #	Void Minimum Depth (cm)	Void Maximum Depth (cm)	Void Average Depth (cm)
SOF-07 A	0.00	0.00	0.00	0.00	No	5	3.01	13.71	8.36
SOF-07 B	0.00	0.00	0.00	0.00	No	4	6.38	13.68	10.03
SOF-07 C	28.56	1.99	1.04	2.50	No	5	4.13	14.55	9.34
SOF-08 A	0.00	0.00	0.00	0.00	No	4	5.67	13.76	9.72
SOF-08 B	0.00	0.00	0.00	0.00	No	2	11.60	15.08	13.34
SOF-08 C	0.00	0.00	0.00	0.00	No	3	3.20	13.03	8.12
SOF-09 A	0.00	0.00	0.00	0.00	No	5	6.74	13.71	10.22
SOF-09 B	0.00	0.00	0.00	0.00	No	3	2.36	15.73	9.04
SOF-09 C	0.00	0.00	0.00	0.00	No	1	12.78	13.34	13.06
SOF-10 A	0.00	0.00	0.00	0.00	No	4	3.57	9.35	6.46
SOF-10 B	0.00	0.00	0.00	0.00	No	5	4.13	15.42	9.77
SOF-10 C	0.00	0.00	0.00	0.00	No	12	1.46	15.79	8.62
SON-01 A	181.85	12.67	12.27	13.51	No	0	-	-	-
SON-01 B	76.17	5.31	3.93	7.47	No	1	4.30	4.44	4.37
SON-01 C	110.39	7.69	6.41	8.57	No	3	6.38	9.44	7.91
SON-02 A					No	2	6.85	10.05	8.45
SON-02 B	55.58	3.87	3.29	4.41	No	1	9.16	10.56	9.86

Station	TOTAL DM AREA	TOTAL DM MEAN		TOTAL DM MIN		TOTAL DM MAX		Low DO?	Feeding Void #	Void Minimum Depth (cm)	Void Maximum Depth (cm)	Void Average Depth (cm)
SON-02 C	130.82	>	9.11	>	8.68	>	10.05	No	0	-	-	-
SON-03 A	151.56		10.56		8.99		10.22	No	1	5.39	5.70	5.55
SON-03 B	187.57		13.07		12.84		13.87	No	2	9.66	11.12	10.39
SON-03 C	162.55		11.33		10.59		11.82	No	3	5.06	10.39	7.72
SON-04 A	187.06		13.03		12.78		13.82	No	4	3.90	10.20	7.05
SON-04 B	182.51		12.72		12.47		13.62	No	3	0.87	15.14	8.00
SON-04 C	141.70		9.87		9.21		9.77	No	4	3.65	7.08	5.36
SON-05 A	161.30		11.24		10.48		11.40	No	4	2.50	11.54	7.02
SON-05 B	182.10		12.69		12.05		13.37	No	1	13.12	14.21	13.66
SON-05 C	168.36		11.73		10.93		12.84	No	3	2.28	3.79	3.03
SON-06 A	138.62		9.66		8.68		9.83	No	3	6.01	9.24	7.63
SON-06 B	156.30		10.89		10.25		11.15	No	1	7.81	8.45	8.13
SON-06 C	166.59		11.61		10.87		11.71	No	2	3.76	10.99	7.37
SON-07 A	183.38		12.78		12.36		12.81	No	1	1.66	4.13	2.89

Station	TOTAL DM AREA	TOTAL DM MEAN	TOTAL DM MIN	TOTAL DM MAX	Low DO?	Feeding Void #	Void Minimum Depth (cm)	Void Maximum Depth (cm)	Void Average Depth (cm)
SON-07 B	164.28	11.45	10.05	11.74	No	2	6.26	9.75	8.00
SON-07 C	117.42	8.18	7.75	9.55	No	2	12.50	14.19	13.34
SON-08 A	159.77	11.13	10.03	11.07	No	2	4.61	12.05	8.33
SON-08 B	149.09	10.39	10.17	10.70	No	1	5.39	7.39	6.39
SON-08 C	150.80	10.51	9.63	10.64	No	1	6.82	7.98	7.40
SON-09 A	167.93	11.70	10.17	12.19	No	1	8.71	9.10	8.90
SON-09 B	167.13	11.64	11.07	11.85	No	3	3.15	14.44	8.79
SON-09 C	163.14	11.37	11.21	11.82	No	2	7.70	10.17	8.93
SON-10 A	171.77	11.97	11.35	12.64	No	3	6.88	16.94	11.91
SON-10 B	163.41	11.39	10.56	12.29	No	3	10.05	15.59	12.82
SON-10 C	154.41	10.76	9.38	11.23	No	1	11.32	11.88	11.60

Station	Successional Stage	COMMENT
R-01 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. Organism at left (most likely Cerianthid). Deep RPD with a couple of small tubes at SWI and numerous fecal pellets. Numerous active subsurface feeding voids. Sediment column is well-processed.
R-01 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Numerous active subsurface feeding voids. Sediment column is well-processed. Large organism in upper left and biogenic mound above organism. Interesting shot of cycling. Minor small, reworked shell fragments throughout sediment column.
R-01 E	Stage 1 on 3	Light gray, well bioturbated silt/clay. Active burrow in center with organism 2/3 down frame. Several oxidized sediment-filled voids at lower left. Stick amphipod tube at SWI. Several shallow burrows in RPD. RPD is deep and even and also contains abundant planktonic seston. Three reps at this station are similar.
R-02 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. SWI appears to be recently disturbed from foraging/predation. Jumble of tube fragments left that are lying on the sediment surface. RPD scraped off in center. Several active voids in the subsurface sediment, some with oxidized sediment or oxidized halos. Several intact tubes at right. Interesting pic.
R-02 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep, even RPD with reworked planktonic seston. Numerous (>10) tubes at SWI. Several active, archetypal feeding voids in subsurface sediment. Small worm in upper center and long, thin worm at lower left. Biologically robust.
R-02 C	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep, even RPD with reworked planktonic seston. Biogenic depression at left. Active voids at left, with lower left corner void containing oxidized sediment. Deep burrow at right. Several small tubes at SWI and abundant infaunal fecal pellets. Three reps are generally similar with the exception of the surface topography observed in Rep A.
R-03 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep, even RPD with reworked planktonic seston. Numerous subsurface, active feeding voids. Several very small tubes at SWI. Abundant infaunal fecal material at SWI. Worm at bottom left.
R-03 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep, even RPD with reworked planktonic seston. SWI covered with small oxidized biogenically aggregated particles/broken tubes. Small void in upper center, active void in lower center and lower right. Biogenic mound at center SWI.
R-03 C	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. Burrow/void in upper right and void at bottom of frame. A few tubes at SWI. Numerous patches of oxidized sediment at depth. Three reps from this station are similar.
R-04 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. Active voids at center and left with numerous patches of oxidized sediment in the subsurface of the sediment column. Interesting sediment cycling at SWI. Several biogenically aggregated sediment chunks being re-incorporated into the sediment column. Very fine tubes at left SWI.
R-04 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston and small band of sulphate reduction immediately under RPD. Small burrow/void in lower left center. Several thin worms smeared against faceplate. Mudclasts are artifacts from SPI wiper blade. Several tubes of different types at SWI.
R-04 D	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. Several biogenically aggregated sediment chunks being re-incorporated into the sediment column. Very fine tubes at left SWI. Very large active voids in left subsurface. Interesting pic of SWI dynamics.
R-05 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. RPD locally influenced by black patch of sediment in center SWI. Active voids at right and active void/burrow with oxidized halo at far left. Abundant infaunal fecal matter at SWI. Reincorporation of biogenically aggregated particles back into the sediment column.
R-05 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. Reincorporation of biogenically aggregated particles back into the sediment column. Dual stick amphipods in right background. A few fine tubes amongst the biogenically aggregated small rubble at left. Active voids at right and at bottom f frame. Small red worm in lower right-center.
R-05 C	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. Abundant infaunal fecal matter at SWI. Reincorporation of biogenically aggregated particles back into the sediment column. Shallow void with biogenic mound in upper right. Two, oxidized sediment-filled void complexes in center of sediment column. Three reps are similar and the biogenic rubble at SWI is significant.
SOF-01 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. Deep RPD with reworked planktonic seston. Abundant infaunal fecal matter at SWI. Several small polychaetes in upper sediment column. Numerous subsurface voids/burrows. Abundant small oxidized mudclasts at SWI with some broken tube fragments with rounded mudclasts.
SOF-01 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Abundant infaunal fecal matter at SWI. Very large void/burrow complexes in subsurface sediment. Mudclasts/biogenic aggregate at SWI and is being reincorporated into the sediment column.

Station	Successional Stage	COMMENT
SOF-01 C	Stage 1 on 3	Light gray, well bioturbated silt/clay. Large burrow and animal in center of frame and oxidized active voids at right. Numerous small oxidized mudclasts at SWI that are being reincorporated into the sediment column. Invaginated RPD. Reduced sediment at entrance to feeding depression/burrow at SWI.
SOF-02 A	Stage 1 on 3	Light gray, well bioturbated silt/clay. Small rounded oxidized mudclasts at SWI and some broken tube fragments. Several subsurface feeding voids/burrows. Deep invaginated RPD with several shallow burrows.
SOF-02 B	Stage 1 on 3	Light gray, well bioturbated silt/clay. Biogenically aggregated particles at SWI. Small void in RPD in center of frame. Burrow/void with animal in center of frame and relict/sediment filled voids at right. Recumbent tube at center SWI. Upper 4 cm of sediment column appears to have higher sand/shell fragment content.
SOF-02 C	Stage 1 on 3	Light gray, well bioturbated silt/clay. Thinly developed RPD with some fall down at SWI - distinct reduced band under RPD. Three voids/burrows at right, organism and active void at left and two patches of oxidized sediment at bottom of the frame. Reduced mudclast in upper right background.
SOF-03 A	Stage 1 on 3	Light to dark gray, silt/clay with tan RPD. Thinly developed RPD with some fall down at SWI. Numerous mudclasts and biogenically aggregated particles at SWI. Larger mudclasts are reduced and angular. Numerous subsurface feeding voids and burrows. Large, active void at lower right with burrow leading to void. Distinct reduced band 9.3-13.4 cm below the SWI.
SOF-03 B	Stage 1 on 3	Light to medium gray, silt/clay with tan RPD. Highly invaginated RPD with several shallow burrows. Numerous small biogenically aggregated particles at SWI and a couple of larger mudclasts. Reduced ribbon of sediment at SWI is an artifact. Void in upper right and multi-void complex at left. Biogenic mound above small void at right. Recumbent tube at left SWI.
SOF-03 C	Stage 1 on 3	Light to medium gray, bioturbated silt/clay with tan RPD. Highly invaginated RPD with several shallow burrows. Numerous small biogenically aggregated particles at SWI and a couple of rounded, larger mudclasts. Voids in center and bottom center of frame. Several small worms in upper sediment column. Small tubes at SWI. Higher proportion of fine sand and shell particles upper sediment column - top 3 cm.
SOF-04 A	Stage 1 on 3	Light to medium gray, bioturbated silt/clay with tan RPD. Highly invaginated RPD with several shallow burrows. Large subsurface burrow at left and several active voids with oxidized sediment at right. Biogenic mound at left SWI and infaunal depression at right SWI. At least three tube types at SWI.
SOF-04 B	Stage 1 on 3	Light to light gray, bioturbated silt/clay with tan RPD. Deep, even RPD with several shallow burrows. Two shallow burrows in RPD and deeper sediment filled void in lower left. Biogenic mound at far right SWI. Several thin worms in upper sediment column. There appears to be some incorporation of biogenically aggregated particles back into the sediment column.
SOF-04 C	Stage 1 on 3	Light to dark gray, bioturbated silt/clay with tan RPD. Highly invaginated RPD with several burrow traces and void at bottom of RPD. Two sediment filled voids in far left and far right along with several dark relict burrows/voids in center of sediment column. A few intact tubes at SWI and a layer of biogenically aggregated particles at left that appear to be in the process of reincorporation into the sediment column.
SOF-05 A	Stage 1 on 3	Light to medium gray, bioturbated silt/clay with tan RPD. Thin layer of clearly reduced material immediately below RPD with relict oxidized material below reduced layer. Void in mid-left and is active. Several shallow burrows. Coating of biogenically aggregated particles at the SWI that appear to be in the process of being incorporated into the sediment column. Several broken tube fragments and some fecal strings at SWI.
SOF-05 B	Stage 1 on 3	Light to medium gray, bioturbated silt/clay with tan RPD. Upper 5 cm appear enriched in sand relative to subsurface sediment. Mudclasts at SWI appear to be artifacts. Void complex at left and sediment filled void in mid-right. Fecal matter and a few tube fragments at SWI.
SOF-05 C	Stage 1 on 3	Light to medium gray, bioturbated silt/clay with tan RPD. Upper 3 cm appear enriched in sand relative to subsurface sediment. Highly invaginated RPD with numerous shallow burrows. Small void in upper left, small void in lower right, and gallery of sediment-filled voids in center of image. Organism dragged at bottom left. Reduced mudclasts appear to be artifacts.
SOF-06 A	Stage 1 on 3	Light to dark gray, silt/clay with tan RPD. Lower portion of the sediment column is distinctly organic and appears to reworked old DM. The dark gray sediment at depth grade to light gray sediment near the SWI. Sediment-filled gallery of voids in subsurface. Rounded oxidized mudclasts and small tubes at SWI.
SOF-06 B	Stage 1 on 3	Light to medium gray silt/clay over dark gray silt/clay. Tam RPD invaginated with burrows. Appear to be old DM at depth 9.3 cm below the SWI. Large gallery of voids at right. Several thin worms in upper sediment column. Several tubes at SWI of at least three types.
SOF-06 C	Stage 1 on 3	Light to medium gray silt/clay over dark gray silt/clay. Tam RPD invaginated with burrows. Appears to be old DM at depth 9.5 to 11.2 cm below the SWI. Numerous voids, some with oxidized sediment at depth within the sediment column. Mudclasts at SWI are artifacts. There appears to be some mixing of old DM and overlying sediments as there is no distinct contact.

Station	Successional Stage	COMMENT
SOF-07 A	Stage 1 on 3	Light to medium gray slightly sandy silt/clay. Tan RPD with some invagination from shallow burrows. Numerous active subsurface feeding voids. Upper 3 cm of sediment appears sandier than underlying sediments. A couple of small tubes and abundant infaunal fecal castings at SWI.
SOF-07 B	Stage 1 on 3	Light gray, bioturbated slightly sandy sit/clay. Top 3 cm of sediment appears sandier than subsurface sediment. Prominent act burrow at left with reduced sediment being advected to the SWI. Numerous large subsurface feeding voids. Nice pic.
SOF-07 C	Stage 1 on 3	Light gray to tan muddy sand over light to dark gray silt/clay. Old DM at bottom of frame 13.3 cm below the SWI. Several voids/burrow traces in subsurface sediment. Long oxidized burrow at right. Two small bivalves in upper right. Old DM is dark gray to black and is present across entire frame width. Indistinct contact between old DM and overlying sediment.
SOF-08 A	Stage 1 on 3	Light to medium gray, bioturbated silt/clay/ Tan RPD that is invaginated due to several shallow burrows. Active void in center and left of frame. Reduced sediment-filled relict void also visible.
SOF-08 B	Stage 1 on 3	Light to medium gray, bioturbated silt/clay/ Tan RPD that is invaginated due to several shallow burrows. Small, active voids in lower left of frame, far left void has oxidized halo. Organism faintly smeared in upper right. Biogenic mound at right SWI.
SOF-08 C	Stage 1 on 3	Light to medium gray silt/clay. Tan RPD is thinly developed and likely physical disturbance in recent past. No excess organics in sediment column. Large active void in lower center of frame. Several small burrows/voids in upper sediment column, ones at left are multi-chambered.
SOF-09 A	Stage 1 on 3	Light to medium gray silt/clay. Tan RPD that is invaginated from burrows at right, and deep at left. Numerous small biogenically aggregated particles at the SWI that are in the process of being reincorporated into the sediment column. Numerous voids in subsurface sediment, many part of the same gallery. Nice Pic.
SOF-09 B	Stage 1 on 3	Light to medium gray silt/clay. Tan RPD is well developed and invaginated from shallow burrows. Burrow and drag down at center SWI. Active voids in upper right and lower left of frame. Numerous small rounded mudclasts at SWI. Several deep oxidized burrows in the sediment column.
SOF-09 C	Stage 1 on 3	Light to medium gray silt/clay. Tan RPD is well developed and invaginated from shallow burrows. Numerous small mudclasts/biogenic aggregates being assimilated into the sediment column at the SWI. Small active void in lower center but evidence of subsurface bioturbation throughout sediment column. Bivalve in upper right. Red polychaete at far right.
SOF-10 A	Stage 1 on 3	Light to medium gray slightly sandy silt/clay. Invaginated tan RPD with several shallow burrows. Active voids with oxidized sediment in upper right of sediment column. Oxidized burrow to depth at lower left. Nice pic.
SOF-10 B	Stage 1 on 3	Light to medium gray slightly sandy silt/clay. Invaginated tan RPD with several shallow burrows. Active and sediment-filled voids throughout the subsurface sediment. A few tubes at SWI. Feeding depressions at left and center SWI.
SOF-10 C	Stage 1 on 3	Light to medium gray slightly sandy silt/clay. Invaginated tan RPD with several shallow burrows. Active voids throughout the subsurface sediment and sediment column is intensively bioturbated. Many voids may be part of same gallery system. Several tubes at SWI. Biogenic mound at right. Three reps from this station similar.
SON-01 A	Stage 2	Medium to dark gray silt/clay with thin sand enriched band at SWI. Sediment column appears to be dominantly composed of old DM. Change in reflectance 9.9 cm below to SWI to greasy, gray-brown hue. Methane vesicle at bottom of frame. Reduced sediment-filled relict voids in upper right. Burrow at left.
SON-01 B	Stage 2 -> 3	Medium gray sandy silt/clay with some clots/smears of dark gray silt clay. Appears to be old DM with some mixed old dm/rec sediment near SWI. Old DM 4.5 to 7.7 cm below SWI. Small voids/burrows in upper sediment column/RPD. Reduced sediment-filled relict void in center of frame. Small rounded oxidized mudclasts at SWI.
SON-01 C	Stage 1 on 3	Medium to dark gray sandy silt/clay with very fine sand enriched 2 cm band at SWI. Sediment column appears to contain old DM 5-7 cm below the SWI. In upper portions old DM appears partially reworked. Patch of gray/brow distinct old DM in botto left corner. Active void in center and below biogenic depression at SWI. Nice pic. Three reps from this station show variability.
SON-02 A	Stage 1 on 3	Medium gray sandy silt/clay. Portion of the sediment column appears to be reworked/mixed old DM. No distinct strata or relict contacts. Active voids in center and left. Deep, even RPD with biogenic mound at left. Interesting pic and is likely a "type" example of old DM being reworked and mixed with recent deposition to approach ambient.
SON-02 B	Stage 1 on 3	Medium to dark gray silty fine sand. Old Dm at bottom of frame and dominantly sand. Upper portion of the sediment column may have DM admixed with recent deposition or consist of reworked older DM that no longer retains a unique optical signature. Void at bottom of frame. Biogenic mound at left SWI with dense accumulation of infaunal fecal pellets. Red worms in left-center of frame. Nice Pic.

Station	Successional Stage	COMMENT
SON-02 C	Stage 1 on 3	DM>P. Sediment surface distinctly disturbed. Oxidized coating in background. Dark gray very silty fine sand. RPD is indeterminate due to disturbance. Series of en-echelon tears in sediment column that are artifacts of penetration. Cohesive clay clot under sediment tears. Numerous small worms/polychaetes in upper sediment column with large Stage 3 worm tubes in background. Three reps at this station are variable.
SON-03 A	Stage 1 on 3	Medium to dark gray silty fine sand with distinct sand bands. Old Dm. Upper 2-3 cm of sediment is likely reworked old Dm with minor amounts of other deposition - not measured as DM. Lower portion of the sediment column is distinctly old DM with brow/gray greasy signature in spots. Burrow and organism at left. Small void in upper left center. A few tubes at SWI. Nice pic.
SON-03 B	Stage 1 on 3	Medium gray sandy silt/clay over dark gray silty fine sand. Sediment column is dominantly old DM with some old dm/recent deposition in upper 2 cm. Nephtid at right and active void below nephtid. Distinct change in porosity at -2 cm. Lower Dm unit has brown/gray signature.
SON-03 C	Stage 1 on 3	Fine sandy RPD over medium gray slightly sandy silt/clay over dark gray-brown distinct sandy old DM. The gray brown layer is 11.7 cm below SWI although the upper medium gray silt layer appears to also have a high component of old DM. Voids at rigl The three reps at this station show a bit of variability due to the extent of old DM reworking.
SON-04 A	Stage 1 on 3	Medium to dark gray silty fine sand. Sediment column is dominantly composed of old DM with dark gray/brown distinct DM at bottom of the frame 10.5 cm below the SWI. Gray sediment above this horizon is likely a mix of reworked DM and some recent deposition. Numerous active voids in sediment column all above the distinct DM layer. Black sediment being brought to the SWI at left. Several thin worms in upper sediment column.
SON-04 B	Stage 1 on 3	Medium to dark gray very silty fine sand. Sediment column is composed primarily of old DM. Old DM at bottom of frame has gray-brown signature and starts 10.4 cm below the SWI. Active void in upper right and voids which may not be active in mid l and lower right. Numerous mudclasts at SWI and based on rounded form, appear related to trawling disturbance. Several thin worms in upper sediment column. Upper portion of gray sediment appears to be reworked old DM along with admixed recently deposited sediment.
SON-04 C	Stage 1 on 3	Medium to dark gray sandy silt/clay. Upper 2-3 cm of sediment column appears enriched in sand. Sediment column is primarily composed of old DM. Dark gray.green/brown signature old dm at bottom of frame, 9.2-10.2 cm below the SWI. Gray sediment above this strata appears to be a mixture of reworked old DM and recently deposited material. Active voids/burrows in upper sediment column and polychaete present in center of the frame.
SON-05 A	Stage 1 on 3	Medium to dark gray sandy silt/clay. Sediment column appears to be dominantly old DM. Archetypal dark gray/green/brown DM at bottom of frame and starts 10.6 cm below the SWI. Numerous voids/burrows likely part of same gallery complex runni from upper left to lower right with reduced sediment being brought to the SWI. Upper portion of the sediment column likely old DM reworked and admixed with recent deposition.
SON-05 B	Stage 1 on 3	Medium to dark gray sandy silt/clay. Archetypal dark gray/green/brown DM at bottom of frame 12.7 cm below the SWI. Upper portion of gray sediment is likely reworked old DM and some recent deposition. Small void burrow with reduced sediment in bottom center of frame. Burrows at right and organism in mid-left. Broad biogenic mound at right.
SON-05 C	Stage 1 on 3	Medium to dark gray sandy silt/clay. Old Dm at bottom of frame and is a distinct layer at 9.9 cm below the SWI. DM appear reworked/admixed above 9.9 below SWI. Group of active small voids/burrows in upper right. Biogenic mound and depression at left SWI. Small reduced mudclasts at SWI are artifacts.
SON-06 A	Stage 1 on 3	Medium to dark gray sandy silt/clay. Old DM at bottom of frame and is a distinct layer at 9 cm below the SWI. DM appear reworked/admixed above 9 cm below SWI. Large void in center of frame and very large burrow with oxidized features at left. Several small worms in upper sediment column.
SON-06 B	Stage 1 on 3	Medium to dark gray sandy silt/clay. Old DM at bottom of frame and is a distinct layer at 8 cm below the SWI. DM appear reworked/admixed above 8 cm below SWI. Small reduced burrow/void in center-left. A few tubes at SWI.
SON-06 C	Stage 1 on 3	Medium to dark gray silt over silty fine sand. Dark gray-green-brown old DM at bottom of frame. This layer starts 9.2 cm bel the SWI. Medium gray sediment above the archetypal DM is likely a mixture of reworked DM and subsequently naturally deposited sediment. Two large reduced voids in center and lower center of frame. Three reps from this station generally similar but show some variability inherent in the old DM.
SON-07 A	Stage 1 on 3	Medium to dark gray layer silt over sand. Appears to old DM at depth that has greasy gray-green-brown signature. Either a lay of clay or a relict RPD 9.7 cm below the SWI. The distinct old DM layer starts 7.5 cm below the SWI. Shallow burrow/void in upper left corner. Numerous small mudclast at SWI. Image does not show evidence of extensive subsurface bioturbation.

Station	Successional Stage	COMMENT
SON-07 B	Stage 1 on 3	Medium to dark gray very sandy silt/clay with some layering. Old dm (gray-green-brown) at bottom of frame. This layer is 9.5 cm below the SWI. Gray sediment above this layer is likely reworked old DM admixed with some recent deposition. Two sand filled void in upper center and right-center and appear to be part of the same gallery complex. Numerous small mudclasts/biogenically aggregated particles at SWI. Strata similar to rep A.
SON-07 C	Stage 1 on 3	Medium gray slightly sandy silt/clay. Appear to reworked old DM and some recent deposition. The distinct DM layer is absent. Two active voids at depth within the sediment column. A few tubes at SWI along with numerous small rounded mudclasts. Different from other two reps.
SON-08 A	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown DM at bottom of frame. This layer is 9.2 cm below the SWI. Reworked DM with admixed deposition above this layer. Prominent void with connecting burrow in upper sediment column. Numerous shallow burrows and invaginated RPD. Biogenic mound at SWI where burrow intersects.
SON-08 B	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown DM at bottom of frame. This layer is 7.9 cm below the SWI. Reworked DM with admixed deposition above this layer. Large reduced void in the center of the frame. Numerous very small rounded mudclasts at the SWI. Numerous shallow burrows and invaginated RPD. Relict RPD or clays lens at bottom of frame.
SON-08 C	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown DM at bottom of frame. This layer is 8 cm below the SWI. Thin band of reworked DM with admixed deposition above this layer. Sand-filled void in the left of the frame. Numerous very small rounded, oxidized mudclasts at the SWI which appear to biogenically aggregated. Numerous shallow burrows and invaginated RPD.
SON-09 A	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown sandy DM at bottom of frame. This layer is 12 cm below the SWI. Thick band of medium gray reworked DM with admixed deposition above this layer. Biogenically aggregated particles being reincorporated into the sediment column at SWI. Very small void in lower left. Numerous shallow burrows and invaginated RPD. Stick amphipod tubes at left SWI.
SON-09 B	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown sandy DM at bottom of frame. This layer is 9.2 cm below the SWI. Thick band of medium gray reworked DM with admixed deposition above this layer. Numerous shallow burrows and invaginated RPD. Stick amphipod tube at left SWI and several very small mud tubes. Large active voids in upper left. left, and lower right corner. Good example of the change in optical properties in the DM due to bioturbation in the halo around the lower right void. Nice Pic.
SON-09 C	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown sandy DM at bottom of frame. This layer is 10.1 cm below the SWI. Thick band of medium gray reworked DM with admixed deposition above this layer. Numerous shallow burrows and invaginated RPD. Two prominent feeding voids in center of sediment column. Three reps are generally similar.
SON-10 A	Stage 1 on 3	Medium gray slightly sandy silt/clay with tan RPD. Subsurface gray sediment appears to old, reworked DM. Active voids at right. RPD has numerous shallow burrows and is highly invaginated. Tube at left SWI. Interesting texture in subsurface sediment.
SON-10 B	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown sandy DM at bottom of frame. This layer is 9.7 cm below the SWI. Thick band of medium gray reworked DM with admixed deposition above this layer. Several small tubes at SWI. Voids in lower portion of the sediment column with large polychaete above right void.
SON-10 C	Stage 1 on 3	Medium to dark gray sandy silt/clay. Distinct layer of dark gray-green/brown sandy DM at bottom of frame. This layer is 9.2 cm below the SWI. Thick band of medium gray reworked DM with admixed deposition above this layer. Several small tubes at SWI. Void in lower right of the sediment column. RPD invaginated with several shallow burrows.

APPENDIX D

Chemistry Data

Appendix Table D-1. Total Organic Carbon Results (mg/kg dry weight)

Station	LabID	BatchID	Result	Qualifier	RL	MDL	Dilution
B03-A	D0767-13B	19024	15000	E	100	10	1
B03-B	D0767-14B	19024	17000	E	100	10	1
B03-C	D0767-15B	19024	14000	E	100	10	1
B03-D	D0767-16B	19024	17000	E	100	10	1
B04-A	D0766-17B	18971	14000	E	100	10	1
B04-B	D0766-18B	18971	13000	E	100	10	1
B04-C	D0766-19B	19024	11000	E	100	10	1
B04-D	D0766-20B	19024	17000	E	100	10	1
B05-A	D0766-13B	18971	15000	E	100	10	1
B05-B	D0766-14B	18971	14000	E	100	10	1
B05-C	D0766-15B	18971	13000	E	100	10	1
B05-D	D0766-16B	18971	14000	E	100	10	1
B06-A	D0766-09B	18971	15000	E	100	10	1
B06-B	D0766-10B	18971	13000	E	100	10	1
B06-C	D0766-11B	18971	15000	E	100	10	1
B06-D	D0766-12B	18971	13000	E	100	10	1
B07-A	D0767-01B	19024	17000	E	100	10	1
B07-B	D0767-02B	19024	18000	E	100	10	1
B07-C	D0767-03B	19024	19000	E	100	10	1
B07-D	D0767-04B	19024	21000	E	100	10	1
C1-A	D0766-05B	18971	19000	E	100	10	1
C1-B	D0766-06B	18971	15000	E	100	10	1
C1-C	D0766-07B	18971	15000	E	100	10	1
C1-D	D0766-08B	18971	24000	E	100	10	1
C2-A	D0766-01B	18971	19000	E	100	10	1
C2-B	D0766-02B	18971	17000	E	100	10	1
C2-C	D0766-03B	18971	16000	E	100	10	1
C2-D	D0766-04B	18971	23000	E	100	10	1
R01-A	D0767-09B	19024	15000	E	100	10	1
R01-B	D0767-10B	19024	14000	E	100	10	1
R01-C	D0767-11B	19024	15000	E	100	10	1
R01-D	D0767-12B	19024	17000	E	100	10	1
R02-A	D0767-05B	19024	15000	E	100	10	1
R02-B	D0767-06B	19024	16000	E	100	10	1
R02-C	D0767-07B	19024	18000	E	100	10	1
R02-D	D0767-08B	19024	18000	E	100	10	1
RINSATE	D0767-17C	18922	0	U	10	3.4	1

E qualifier: Value above quantitation range.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B03-A	Aluminum	D0767-13B	19117		14800	E	11	0.36	1
B03-A	Arsenic	D0767-13B	19117		10	E	1.1	0.08	1
B03-A	Beryllium	D0767-13B	19117		0.51	E	0.26	0.0064	1
B03-A	Cadmium	D0767-13B	19117		0.3	E	0.26	0.0058	1
B03-A	Chromium	D0767-13B	19117		62	E	1.1	0.015	1
B03-A	Copper	D0767-13B	19117		65.6		1.6	0.22	1
B03-A	Iron	D0767-13B	19117		27700	E	21	1.8	2
B03-A	Lead	D0767-13B	19117		36	E	0.53	0.043	1
B03-A	Mercury	D0767-13B	19118		0.16	*	0.035	0.0074	1
B03-A	Nickel	D0767-13B	19117		22.2	E	2.6	0.027	1
B03-A	Selenium	D0767-13B	19117		0	U	1.6	0.07	1
B03-A	Silver	D0767-13B	19117		0.92	BE	1.6	0.02	1
B03-A	Zinc	D0767-13B	19117		126	E	2.6	0.059	1
B03-B	Aluminum	D0767-14B	19117		13200	E	8.8	0.3	1
B03-B	Arsenic	D0767-14B	19117		9.5	E	0.88	0.067	1
B03-B	Beryllium	D0767-14B	19117		0.47	E	0.22	0.0053	1
B03-B	Cadmium	D0767-14B	19117		0.68	E	0.22	0.0048	1
B03-B	Chromium	D0767-14B	19117		83.3	E	0.88	0.012	1
B03-B	Copper	D0767-14B	19117		116		1.3	0.18	1
B03-B	Iron	D0767-14B	19117		25000	E	18	1.5	2
B03-B	Lead	D0767-14B	19117		40.2	E	0.44	0.036	1
B03-B	Mercury	D0767-14B	19118		0.2	*	0.031	0.0065	1
B03-B	Nickel	D0767-14B	19117		22.2	E	2.2	0.023	1
B03-B	Selenium	D0767-14B	19117		0	U	1.3	0.059	1
B03-B	Silver	D0767-14B	19117		1.5	E	1.3	0.017	1
B03-B	Zinc	D0767-14B	19117		138	E	2.2	0.049	1
B03-C	Aluminum	D0767-15B	19117		10900	E	8.6	0.29	1
B03-C	Arsenic	D0767-15B	19117		9.6	E	0.86	0.066	1
B03-C	Beryllium	D0767-15B	19117		0.42	E	0.22	0.0053	1
B03-C	Cadmium	D0767-15B	19117		2.9	E	0.22	0.0048	1
B03-C	Chromium	D0767-15B	19117		227	E	0.86	0.012	1
B03-C	Copper	D0767-15B	19117		409		1.3	0.18	1
B03-C	Iron	D0767-15B	19117		20100	E	17	1.5	2
B03-C	Lead	D0767-15B	19117		73.8	E	0.43	0.035	1
B03-C	Mercury	D0767-15B	19118		0.46	*	0.024	0.0051	1
B03-C	Nickel	D0767-15B	19117		30.2	E	2.2	0.022	1
B03-C	Selenium	D0767-15B	19117		0	U	1.3	0.058	1
B03-C	Silver	D0767-15B	19117		3.3	E	1.3	0.016	1
B03-C	Zinc	D0767-15B	19117		231	E	2.2	0.048	1
B03-D	Aluminum	D0767-16B	19117		9650	E	7.8	0.26	1
B03-D	Aluminum	D0767-16BDUP	19117	LR	9807.5368		7.8	0.26	1
B03-D	Arsenic	D0767-16B	19117		10.3	E	0.78	0.059	1
B03-D	Arsenic	D0767-16BDUP	19117	LR	9.7584		0.78	0.059	1
B03-D	Beryllium	D0767-16B	19117		0.43	E	0.19	0.0048	1
B03-D	Beryllium	D0767-16BDUP	19117	LR	0.4261		0.19	0.0048	1
B03-D	Cadmium	D0767-16B	19117		8.5	E	0.19	0.0043	1
B03-D	Cadmium	D0767-16BDUP	19117	LR	7.2283		0.19	0.0043	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B03-D	Chromium	D0767-16B	19117		504	E	0.78	0.011	1
B03-D	Chromium	D0767-16BDUP	19117	LR	455.5036		0.78	0.011	1
B03-D	Copper	D0767-16B	19117		1090		2.3	0.33	2
B03-D	Copper	D0767-16BDUP	19117	LR	893.5101		2.3	0.33	2
B03-D	Iron	D0767-16B	19117		19000	E	16	1.4	2
B03-D	Iron	D0767-16BDUP	19117	LR	17864.2726		16	1.4	2
B03-D	Lead	D0767-16B	19117		140	E	0.39	0.032	1
B03-D	Lead	D0767-16BDUP	19117	LR	127.2977		0.39	0.032	1
B03-D	Mercury	D0767-16B	19118		0.43	*	0.028	0.0059	1
B03-D	Mercury	D0767-16BDUP	19118	LR	0.6872	*	0.028	0.0059	1
B03-D	Nickel	D0767-16B	19117		51.8	E	1.9	0.02	1
B03-D	Nickel	D0767-16BDUP	19117	LR	49.1944		1.9	0.02	1
B03-D	Selenium	D0767-16B	19117		0	U	1.2	0.052	1
B03-D	Selenium	D0767-16BDUP	19117	LR	0.052	U	1.2	0.052	1
B03-D	Silver	D0767-16B	19117		6.6	E	1.2	0.015	1
B03-D	Silver	D0767-16BDUP	19117	LR	6.2351		1.2	0.015	1
B03-D	Zinc	D0767-16B	19117		453	E	1.9	0.044	1
B03-D	Zinc	D0767-16BDUP	19117	LR	422.9653		1.9	0.044	1
B04-A	Aluminum	D0766-17B	19098		13400	E	11	0.36	1
B04-A	Arsenic	D0766-17B	19098		9.5	E	1.1	0.081	1
B04-A	Beryllium	D0766-17B	19098		0.48	E	0.27	0.0065	1
B04-A	Cadmium	D0766-17B	19098		0.25	BE	0.27	0.0059	1
B04-A	Chromium	D0766-17B	19098		53.2	E	1.1	0.015	1
B04-A	Copper	D0766-17B	19098		61.7	E	1.6	0.22	1
B04-A	Iron	D0766-17B	19098		25300		53	4.6	5
B04-A	Lead	D0766-17B	19098		33.7	*E	0.53	0.044	1
B04-A	Mercury	D0766-17B	19097		0.2	*	0.035	0.0075	1
B04-A	Nickel	D0766-17B	19098		19.6	E	2.7	0.028	1
B04-A	Selenium	D0766-17B	19098		0	U	1.6	0.071	1
B04-A	Silver	D0766-17B	19098		0	UE	1.6	0.02	1
B04-A	Zinc	D0766-17B	19098		118	E	2.7	0.06	1
B04-B	Aluminum	D0766-18B	19098		12000	E	9.4	0.32	1
B04-B	Arsenic	D0766-18B	19098		7.6	E	0.94	0.071	1
B04-B	Beryllium	D0766-18B	19098		0.45	E	0.23	0.0057	1
B04-B	Cadmium	D0766-18B	19098		0.36	E	0.23	0.0052	1
B04-B	Chromium	D0766-18B	19098		62.2	E	0.94	0.013	1
B04-B	Copper	D0766-18B	19098		85.8	E	1.4	0.2	1
B04-B	Iron	D0766-18B	19098		25800		47	4.1	5
B04-B	Lead	D0766-18B	19098		35.2	*E	0.47	0.038	1
B04-B	Mercury	D0766-18B	19097		0.21	*	0.028	0.006	1
B04-B	Nickel	D0766-18B	19098		19.4	E	2.3	0.024	1
B04-B	Selenium	D0766-18B	19098		0	U	1.4	0.063	1
B04-B	Silver	D0766-18B	19098		1.1	BE	1.4	0.018	1
B04-B	Zinc	D0766-18B	19098		117	E	2.3	0.053	1
B04-C	Aluminum	D0766-19B	19098		9670	E	9.1	0.31	1
B04-C	Arsenic	D0766-19B	19098		8.3	E	0.91	0.069	1
B04-C	Beryllium	D0766-19B	19098		0.53	E	0.23	0.0055	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B04-C	Cadmium	D0766-19B	19098		2.4	E	0.23	0.005	1
B04-C	Chromium	D0766-19B	19098		157	E	0.91	0.013	1
B04-C	Copper	D0766-19B	19098		305	E	1.4	0.19	1
B04-C	Iron	D0766-19B	19098		19500		45	3.9	5
B04-C	Lead	D0766-19B	19098		54.8	*E	0.45	0.037	1
B04-C	Mercury	D0766-19B	19097		0.37	*	0.03	0.0064	1
B04-C	Nickel	D0766-19B	19098		23.2	E	2.3	0.024	1
B04-C	Selenium	D0766-19B	19098		0	U	1.4	0.061	1
B04-C	Silver	D0766-19B	19098		1.9	E	1.4	0.017	1
B04-C	Zinc	D0766-19B	19098		182	E	2.3	0.051	1
B04-D	Aluminum	D0766-20B	19098		7320	E	8.2	0.28	1
B04-D	Aluminum	D0766-20BDUP	19098	LR	7697.0351		8.2	0.28	1
B04-D	Arsenic	D0766-20B	19098		7.3	E	0.82	0.062	1
B04-D	Arsenic	D0766-20BDUP	19098	LR	7.5161		0.82	0.062	1
B04-D	Beryllium	D0766-20B	19098		0.33	E	0.2	0.005	1
B04-D	Beryllium	D0766-20BDUP	19098	LR	0.3314		0.2	0.005	1
B04-D	Cadmium	D0766-20B	19098		6.3	E	0.2	0.0045	1
B04-D	Cadmium	D0766-20BDUP	19098	LR	6.868		0.2	0.0045	1
B04-D	Chromium	D0766-20B	19098		327	E	0.82	0.011	1
B04-D	Chromium	D0766-20BDUP	19098	LR	344.1207		0.82	0.011	1
B04-D	Copper	D0766-20B	19098		717	E	1.2	0.17	1
B04-D	Copper	D0766-20BDUP	19098	LR	766.4606		1.2	0.17	1
B04-D	Iron	D0766-20B	19098		15200		41	3.6	5
B04-D	Iron	D0766-20BDUP	19098	LR	15593.3955		41	3.6	5
B04-D	Lead	D0766-20B	19098		119	*E	0.41	0.034	1
B04-D	Lead	D0766-20BDUP	19098	LR	172.585	*	0.41	0.034	1
B04-D	Mercury	D0766-20B	19097		0.63	*	0.028	0.006	1
B04-D	Mercury	D0766-20BDUP	19097	LR	0.8241	*	0.028	0.006	1
B04-D	Nickel	D0766-20B	19098		40.5	E	2	0.021	1
B04-D	Nickel	D0766-20BDUP	19098	LR	42.1252		2	0.021	1
B04-D	Selenium	D0766-20B	19098		0	U	1.2	0.055	1
B04-D	Selenium	D0766-20BDUP	19098	LR	0.055	U	1.2	0.055	1
B04-D	Silver	D0766-20B	19098		3.9	E	1.2	0.016	1
B04-D	Silver	D0766-20BDUP	19098	LR	4.1406		1.2	0.016	1
B04-D	Zinc	D0766-20B	19098		356	E	2	0.046	1
B04-D	Zinc	D0766-20BDUP	19098	LR	371.6181		2	0.046	1
B05-A	Aluminum	D0766-13B	19098		12100	E	10	0.35	1
B05-A	Arsenic	D0766-13B	19098		7.4	E	1	0.077	1
B05-A	Beryllium	D0766-13B	19098		0.46	E	0.25	0.0062	1
B05-A	Cadmium	D0766-13B	19098		0.18	BE	0.25	0.0056	1
B05-A	Chromium	D0766-13B	19098		48.6	E	1	0.014	1
B05-A	Copper	D0766-13B	19098		55	E	1.5	0.21	1
B05-A	Iron	D0766-13B	19098		23200		51	4.4	5
B05-A	Lead	D0766-13B	19098		31.9	*E	0.51	0.042	1
B05-A	Mercury	D0766-13B	19097		0.16	*	0.034	0.0072	1
B05-A	Nickel	D0766-13B	19098		18.6	E	2.5	0.026	1
B05-A	Selenium	D0766-13B	19098		0	U	1.5	0.068	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B05-A	Silver	D0766-13B	19098		1.3	BE	1.5	0.019	1
B05-A	Zinc	D0766-13B	19098		111	E	2.5	0.057	1
B05-B	Aluminum	D0766-14B	19098		13000	E	8.7	0.3	1
B05-B	Arsenic	D0766-14B	19098		8.2	E	0.87	0.066	1
B05-B	Beryllium	D0766-14B	19098		0.49	E	0.22	0.0053	1
B05-B	Cadmium	D0766-14B	19098		0.38	E	0.22	0.0048	1
B05-B	Chromium	D0766-14B	19098		61.6	E	0.87	0.012	1
B05-B	Copper	D0766-14B	19098		78	E	1.3	0.18	1
B05-B	Iron	D0766-14B	19098		24300		44	3.8	5
B05-B	Lead	D0766-14B	19098		36.9	*E	0.44	0.036	1
B05-B	Mercury	D0766-14B	19097		0.19	*	0.029	0.0062	1
B05-B	Nickel	D0766-14B	19098		20.3	E	2.2	0.023	1
B05-B	Selenium	D0766-14B	19098		0	U	1.3	0.058	1
B05-B	Silver	D0766-14B	19098		1.6	E	1.3	0.017	1
B05-B	Zinc	D0766-14B	19098		124	E	2.2	0.049	1
B05-C	Aluminum	D0766-15B	19098		9940	E	9.3	0.31	1
B05-C	Arsenic	D0766-15B	19098		8.5	E	0.93	0.07	1
B05-C	Beryllium	D0766-15B	19098		0.4	E	0.23	0.0056	1
B05-C	Cadmium	D0766-15B	19098		2.2	E	0.23	0.0051	1
B05-C	Chromium	D0766-15B	19098		145	E	0.93	0.013	1
B05-C	Copper	D0766-15B	19098		288	E	1.4	0.19	1
B05-C	Iron	D0766-15B	19098		19900		46	4	5
B05-C	Lead	D0766-15B	19098		56.4	*E	0.46	0.038	1
B05-C	Mercury	D0766-15B	19097		0.36	*	0.033	0.0071	1
B05-C	Nickel	D0766-15B	19098		22.7	E	2.3	0.024	1
B05-C	Selenium	D0766-15B	19098		0	U	1.4	0.062	1
B05-C	Silver	D0766-15B	19098		2.2	E	1.4	0.018	1
B05-C	Zinc	D0766-15B	19098		184	E	2.3	0.052	1
B05-D	Aluminum	D0766-16B	19098		8000	E	8.5	0.29	1
B05-D	Arsenic	D0766-16B	19098		8	E	0.85	0.064	1
B05-D	Beryllium	D0766-16B	19098		0.36	E	0.21	0.0052	1
B05-D	Cadmium	D0766-16B	19098		4.9	E	0.21	0.0047	1
B05-D	Chromium	D0766-16B	19098		256	E	0.85	0.012	1
B05-D	Copper	D0766-16B	19098		571	E	1.3	0.18	1
B05-D	Iron	D0766-16B	19098		16900		42	3.7	5
B05-D	Lead	D0766-16B	19098		92.5	*E	0.42	0.035	1
B05-D	Mercury	D0766-16B	19097		0.57	*	0.027	0.0058	1
B05-D	Nickel	D0766-16B	19098		28.8	E	2.1	0.022	1
B05-D	Selenium	D0766-16B	19098		0	U	1.3	0.057	1
B05-D	Silver	D0766-16B	19098		3.1	E	1.3	0.016	1
B05-D	Zinc	D0766-16B	19098		281	E	2.1	0.047	1
B06-A	Aluminum	D0766-09B	19098		12400	E	9.4	0.32	1
B06-A	Arsenic	D0766-09B	19098		7.5	E	0.94	0.071	1
B06-A	Beryllium	D0766-09B	19098		0.46	E	0.23	0.0057	1
B06-A	Cadmium	D0766-09B	19098		0.41	E	0.23	0.0052	1
B06-A	Chromium	D0766-09B	19098		62.4	E	0.94	0.013	1
B06-A	Copper	D0766-09B	19098		83.9	E	1.4	0.2	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B06-A	Iron	D0766-09B	19098		23900		47	4.1	5
B06-A	Lead	D0766-09B	19098		35.4	*E	0.47	0.039	1
B06-A	Mercury	D0766-09B	19097		0.22	*	0.03	0.0064	1
B06-A	Nickel	D0766-09B	19098		19.4	E	2.3	0.024	1
B06-A	Selenium	D0766-09B	19098		0	U	1.4	0.063	1
B06-A	Silver	D0766-09B	19098		2.7	E	1.4	0.018	1
B06-A	Zinc	D0766-09B	19098		122	E	2.3	0.053	1
B06-B	Aluminum	D0766-10B	19098		11700	E	9.5	0.32	1
B06-B	Arsenic	D0766-10B	19098		8.2	E	0.95	0.072	1
B06-B	Beryllium	D0766-10B	19098		0.43	E	0.24	0.0058	1
B06-B	Cadmium	D0766-10B	19098		0.41	E	0.24	0.0052	1
B06-B	Chromium	D0766-10B	19098		62.5	E	0.95	0.013	1
B06-B	Copper	D0766-10B	19098		84.3	E	1.4	0.2	1
B06-B	Iron	D0766-10B	19098		22000		47	4.1	5
B06-B	Lead	D0766-10B	19098		38.3	*E	0.47	0.039	1
B06-B	Mercury	D0766-10B	19097		0.21	*	0.032	0.0069	1
B06-B	Nickel	D0766-10B	19098		18.8	E	2.4	0.025	1
B06-B	Selenium	D0766-10B	19098		0	U	1.4	0.064	1
B06-B	Silver	D0766-10B	19098		1.9	E	1.4	0.018	1
B06-B	Zinc	D0766-10B	19098		119	E	2.4	0.053	1
B06-C	Aluminum	D0766-11B	19098		11700	E	9.7	0.33	1
B06-C	Arsenic	D0766-11B	19098		9	E	0.97	0.074	1
B06-C	Beryllium	D0766-11B	19098		0.45	E	0.24	0.0059	1
B06-C	Cadmium	D0766-11B	19098		0.49	E	0.24	0.0054	1
B06-C	Chromium	D0766-11B	19098		63.1	E	0.97	0.014	1
B06-C	Copper	D0766-11B	19098		84	E	1.5	0.2	1
B06-C	Iron	D0766-11B	19098		22800		49	4.2	5
B06-C	Lead	D0766-11B	19098		37.8	*E	0.49	0.04	1
B06-C	Mercury	D0766-11B	19097		0.26	*	0.032	0.0068	1
B06-C	Nickel	D0766-11B	19098		19.4	E	2.4	0.025	1
B06-C	Selenium	D0766-11B	19098		0	U	1.5	0.065	1
B06-C	Silver	D0766-11B	19098		1.4	BE	1.5	0.019	1
B06-C	Zinc	D0766-11B	19098		123	E	2.4	0.055	1
B06-D	Aluminum	D0766-12B	19098		12200	E	9.1	0.31	1
B06-D	Arsenic	D0766-12B	19098		8.5	E	0.91	0.069	1
B06-D	Beryllium	D0766-12B	19098		0.45	E	0.23	0.0056	1
B06-D	Cadmium	D0766-12B	19098		0.58	E	0.23	0.005	1
B06-D	Chromium	D0766-12B	19098		75.3	E	0.91	0.013	1
B06-D	Copper	D0766-12B	19098		103	E	1.4	0.19	1
B06-D	Iron	D0766-12B	19098		23700		46	4	5
B06-D	Lead	D0766-12B	19098		47.5	*E	0.46	0.037	1
B06-D	Mercury	D0766-12B	19097		0.25	*	0.031	0.0065	1
B06-D	Nickel	D0766-12B	19098		21.5	E	2.3	0.024	1
B06-D	Selenium	D0766-12B	19098		0	U	1.4	0.061	1
B06-D	Silver	D0766-12B	19098		2.1	E	1.4	0.017	1
B06-D	Zinc	D0766-12B	19098		136	E	2.3	0.051	1
B07-A	Aluminum	D0767-01B	19117		14400	E	11	0.38	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B07-A	Arsenic	D0767-01B	19117		8.9	E	1.1	0.084	1
B07-A	Beryllium	D0767-01B	19117		0.51	E	0.28	0.0068	1
B07-A	Cadmium	D0767-01B	19117		0.22	BE	0.28	0.0061	1
B07-A	Chromium	D0767-01B	19117		56.4	E	1.1	0.016	1
B07-A	Copper	D0767-01B	19117		61.2		1.7	0.23	1
B07-A	Iron	D0767-01B	19117		24300	E	22	1.9	2
B07-A	Lead	D0767-01B	19117		34.6	E	0.55	0.045	1
B07-A	Mercury	D0767-01B	19118		0.21	*	0.035	0.0075	1
B07-A	Nickel	D0767-01B	19117		20.8	E	2.8	0.029	1
B07-A	Selenium	D0767-01B	19117		0	U	1.7	0.074	1
B07-A	Silver	D0767-01B	19117		0.2	BE	1.7	0.021	1
B07-A	Zinc	D0767-01B	19117		120	E	2.8	0.062	1
B07-B	Aluminum	D0767-02B	19117		13800	E	9.9	0.34	1
B07-B	Arsenic	D0767-02B	19117		7.6	E	0.99	0.075	1
B07-B	Beryllium	D0767-02B	19117		0.51	E	0.25	0.006	1
B07-B	Cadmium	D0767-02B	19117		0.33	E	0.25	0.0054	1
B07-B	Chromium	D0767-02B	19117		63.3	E	0.99	0.014	1
B07-B	Copper	D0767-02B	19117		71.7		1.5	0.21	1
B07-B	Iron	D0767-02B	19117		23100	E	20	1.7	2
B07-B	Lead	D0767-02B	19117		37.5	E	0.5	0.041	1
B07-B	Mercury	D0767-02B	19118		0.26	*	0.035	0.0074	1
B07-B	Nickel	D0767-02B	19117		20.9	E	2.5	0.026	1
B07-B	Selenium	D0767-02B	19117		0	U	1.5	0.066	1
B07-B	Silver	D0767-02B	19117		1.3	BE	1.5	0.019	1
B07-B	Zinc	D0767-02B	19117		129	E	2.5	0.055	1
B07-C	Aluminum	D0767-03B	19117		13900	E	9.5	0.32	1
B07-C	Arsenic	D0767-03B	19117		9.5	E	0.95	0.072	1
B07-C	Beryllium	D0767-03B	19117		0.5	E	0.24	0.0058	1
B07-C	Cadmium	D0767-03B	19117		0.41	E	0.24	0.0052	1
B07-C	Chromium	D0767-03B	19117		68.1	E	0.95	0.013	1
B07-C	Copper	D0767-03B	19117		79.2	E	1.4	0.2	1
B07-C	Iron	D0767-03B	19117		23400	E	9.5	0.83	1
B07-C	Lead	D0767-03B	19117		39.8	E	0.48	0.039	1
B07-C	Mercury	D0767-03B	19118		0.21	*	0.028	0.0059	1
B07-C	Nickel	D0767-03B	19117		22	E	2.4	0.025	1
B07-C	Selenium	D0767-03B	19117		0	U	1.4	0.064	1
B07-C	Silver	D0767-03B	19117		1.4	BE	1.4	0.018	1
B07-C	Zinc	D0767-03B	19117		137	E	2.4	0.053	1
B07-D	Aluminum	D0767-04B	19117		14000	E	8.9	0.3	1
B07-D	Arsenic	D0767-04B	19117		10.4	E	0.89	0.068	1
B07-D	Beryllium	D0767-04B	19117		0.48	E	0.22	0.0054	1
B07-D	Cadmium	D0767-04B	19117		0.82	E	0.22	0.0049	1
B07-D	Chromium	D0767-04B	19117		87.5	E	0.89	0.012	1
B07-D	Copper	D0767-04B	19117		123		1.3	0.19	1
B07-D	Iron	D0767-04B	19117		24000	E	18	1.5	2
B07-D	Lead	D0767-04B	19117		48.7	E	0.44	0.036	1
B07-D	Mercury	D0767-04B	19118		0.26	*	0.028	0.0059	1

Qualifiers

E: Estimated value due to quality control issues, see QA report.

B: Value detected in method blank.

* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
B07-D	Nickel	D0767-04B	19117		25.6	E	2.2	0.023	1
B07-D	Selenium	D0767-04B	19117		0	U	1.3	0.06	1
B07-D	Silver	D0767-04B	19117		1.7	E	1.3	0.017	1
B07-D	Zinc	D0767-04B	19117		157	E	2.2	0.05	1
C1-A	Aluminum	D0766-05B	19098		8920	E	10	0.35	1
C1-A	Arsenic	D0766-05B	19098		10.7	E	1	0.078	1
C1-A	Beryllium	D0766-05B	19098		0.39	E	0.26	0.0063	1
C1-A	Cadmium	D0766-05B	19098		7.4	E	0.26	0.0056	1
C1-A	Chromium	D0766-05B	19098		338	E	1	0.014	1
C1-A	Copper	D0766-05B	19098		820	E	1.5	0.22	1
C1-A	Iron	D0766-05B	19098		18600		51	4.5	5
C1-A	Lead	D0766-05B	19098		123	*E	0.51	0.042	1
C1-A	Mercury	D0766-05B	19097		0.86	*	0.031	0.0065	1
C1-A	Nickel	D0766-05B	19098		36.2	E	2.6	0.027	1
C1-A	Selenium	D0766-05B	19098		0	U	1.5	0.069	1
C1-A	Silver	D0766-05B	19098		7.8	E	1.5	0.019	1
C1-A	Zinc	D0766-05B	19098		382	E	2.6	0.057	1
C1-B	Aluminum	D0766-06B	19098		8820	E	9.7	0.33	1
C1-B	Arsenic	D0766-06B	19098		5.9	E	0.97	0.073	1
C1-B	Beryllium	D0766-06B	19098		0.33	E	0.24	0.0059	1
C1-B	Cadmium	D0766-06B	19098		2	E	0.24	0.0053	1
C1-B	Chromium	D0766-06B	19098		97.9	E	0.97	0.014	1
C1-B	Copper	D0766-06B	19098		195	E	1.4	0.2	1
C1-B	Iron	D0766-06B	19098		18100		48	4.2	5
C1-B	Lead	D0766-06B	19098		32.5	*E	0.48	0.04	1
C1-B	Mercury	D0766-06B	19097		0.22	*	0.03	0.0064	1
C1-B	Nickel	D0766-06B	19098		18.9	E	2.4	0.025	1
C1-B	Selenium	D0766-06B	19098		0	U	1.4	0.065	1
C1-B	Silver	D0766-06B	19098		3.9	E	1.4	0.018	1
C1-B	Zinc	D0766-06B	19098		117	E	2.4	0.054	1
C1-C	Aluminum	D0766-07B	19098		11300	E	8.9	0.3	1
C1-C	Arsenic	D0766-07B	19098		6.5	E	0.89	0.068	1
C1-C	Beryllium	D0766-07B	19098		0.4	E	0.22	0.0054	1
C1-C	Cadmium	D0766-07B	19098		1.4	E	0.22	0.0049	1
C1-C	Chromium	D0766-07B	19098		64.7	E	0.89	0.012	1
C1-C	Copper	D0766-07B	19098		120	E	1.3	0.19	1
C1-C	Iron	D0766-07B	19098		22600		45	3.9	5
C1-C	Lead	D0766-07B	19098		23.5	*E	0.45	0.037	1
C1-C	Mercury	D0766-07B	19097		0.11	*	0.029	0.0062	1
C1-C	Nickel	D0766-07B	19098		20	E	2.2	0.023	1
C1-C	Selenium	D0766-07B	19098		0	U	1.3	0.06	1
C1-C	Silver	D0766-07B	19098		3.6	E	1.3	0.017	1
C1-C	Zinc	D0766-07B	19098		92.9	E	2.2	0.05	1
C1-D	Aluminum	D0766-08B	19098		10100	E	9.8	0.33	1
C1-D	Arsenic	D0766-08B	19098		13.7	E	0.98	0.074	1
C1-D	Beryllium	D0766-08B	19098		0.51	E	0.24	0.006	1
C1-D	Cadmium	D0766-08B	19098		21.8	E	0.24	0.0054	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
C1-D	Chromium	D0766-08B	19098		804	E	0.98	0.014	1
C1-D	Copper	D0766-08B	19098		2030	E	7.3	1	5
C1-D	Iron	D0766-08B	19098		22000		49	4.2	5
C1-D	Lead	D0766-08B	19098		244	*E	0.49	0.04	1
C1-D	Mercury	D0766-08B	19097		1.7	*	0.078	0.017	2.5
C1-D	Nickel	D0766-08B	19098		78	E	2.4	0.025	1
C1-D	Selenium	D0766-08B	19098		0	U	1.5	0.065	1
C1-D	Silver	D0766-08B	19098		10.6	E	1.5	0.019	1
C1-D	Zinc	D0766-08B	19098		777	E	2.4	0.055	1
C2-A	Aluminum	D0766-01B	19098		8810	E	10	0.34	1
C2-A	Arsenic	D0766-01B	19098		9.8	E	1	0.077	1
C2-A	Beryllium	D0766-01B	19098		0.4	E	0.25	0.0062	1
C2-A	Cadmium	D0766-01B	19098		10.6	E	0.25	0.0056	1
C2-A	Chromium	D0766-01B	19098		478	E	1	0.014	1
C2-A	Copper	D0766-01B	19098		1130	E	1.5	0.21	1
C2-A	Iron	D0766-01B	19098		17600		51	4.4	5
C2-A	Lead	D0766-01B	19098		148	*E	0.51	0.041	1
C2-A	Mercury	D0766-01B	19097		1	*	0.029	0.0062	1
C2-A	Nickel	D0766-01B	19098		45.6	E	2.5	0.026	1
C2-A	Selenium	D0766-01B	19098		0	U	1.5	0.068	1
C2-A	Silver	D0766-01B	19098		12.6	E	1.5	0.019	1
C2-A	Zinc	D0766-01B	19098		478	E	2.5	0.057	1
C2-B	Aluminum	D0766-02B	19098		11100	E	8.9	0.3	1
C2-B	Arsenic	D0766-02B	19098		7.7	E	0.89	0.068	1
C2-B	Beryllium	D0766-02B	19098		0.4	E	0.22	0.0054	1
C2-B	Cadmium	D0766-02B	19098		3.7	E	0.22	0.0049	1
C2-B	Chromium	D0766-02B	19098		150	E	0.89	0.012	1
C2-B	Copper	D0766-02B	19098		334	E	1.3	0.19	1
C2-B	Iron	D0766-02B	19098		22000		45	3.9	5
C2-B	Lead	D0766-02B	19098		57.3	*E	0.45	0.037	1
C2-B	Mercury	D0766-02B	19097		0.31	*	0.032	0.0067	1
C2-B	Nickel	D0766-02B	19098		25.7	E	2.2	0.023	1
C2-B	Selenium	D0766-02B	19098		0	U	1.3	0.06	1
C2-B	Silver	D0766-02B	19098		8.2	E	1.3	0.017	1
C2-B	Zinc	D0766-02B	19098		188	E	2.2	0.05	1
C2-C	Aluminum	D0766-03B	19098		9570	E	8.3	0.28	1
C2-C	Arsenic	D0766-03B	19098		6.2	E	0.83	0.063	1
C2-C	Beryllium	D0766-03B	19098		0.35	E	0.21	0.0051	1
C2-C	Cadmium	D0766-03B	19098		2.7	E	0.21	0.0046	1
C2-C	Chromium	D0766-03B	19098		126	E	0.83	0.012	1
C2-C	Copper	D0766-03B	19098		262	E	1.2	0.17	1
C2-C	Iron	D0766-03B	19098		18800		42	3.6	5
C2-C	Lead	D0766-03B	19098		37.6	*E	0.42	0.034	1
C2-C	Mercury	D0766-03B	19097		0.32	*	0.028	0.006	1
C2-C	Nickel	D0766-03B	19098		21.9	E	2.1	0.022	1
C2-C	Selenium	D0766-03B	19098		0	U	1.2	0.056	1
C2-C	Silver	D0766-03B	19098		6.4	E	1.2	0.016	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
C2-C	Zinc	D0766-03B	19098		142	E	2.1	0.047	1
C2-D	Aluminum	D0766-04B	19098		9960	E	8.6	0.29	1
C2-D	Arsenic	D0766-04B	19098		11.4	E	0.86	0.065	1
C2-D	Beryllium	D0766-04B	19098		0.46	E	0.21	0.0052	1
C2-D	Cadmium	D0766-04B	19098		12.1	E	0.21	0.0047	1
C2-D	Chromium	D0766-04B	19098		555	E	0.86	0.012	1
C2-D	Copper	D0766-04B	19098		1360	E	6.4	0.9	5
C2-D	Iron	D0766-04B	19098		20900		43	3.7	5
C2-D	Lead	D0766-04B	19098		185	*E	0.43	0.035	1
C2-D	Mercury	D0766-04B	19097		1.3	*	0.031	0.0065	1
C2-D	Nickel	D0766-04B	19098		56.1	E	2.1	0.022	1
C2-D	Selenium	D0766-04B	19098		0	U	1.3	0.057	1
C2-D	Silver	D0766-04B	19098		10.4	E	1.3	0.016	1
C2-D	Zinc	D0766-04B	19098		561	E	2.1	0.048	1
R01-A	Aluminum	D0767-09B	19117		14400	E	9.4	0.32	1
R01-A	Arsenic	D0767-09B	19117		8.3	E	0.94	0.072	1
R01-A	Beryllium	D0767-09B	19117		0.48	E	0.24	0.0058	1
R01-A	Cadmium	D0767-09B	19117		0.14	BE	0.24	0.0052	1
R01-A	Chromium	D0767-09B	19117		43.2	E	0.94	0.013	1
R01-A	Copper	D0767-09B	19117		36.9		1.4	0.2	1
R01-A	Iron	D0767-09B	19117		23500	E	19	1.6	2
R01-A	Lead	D0767-09B	19117		29.6	E	0.47	0.039	1
R01-A	Mercury	D0767-09B	19118		0.13	*	0.033	0.0071	1
R01-A	Nickel	D0767-09B	19117		20.6	E	2.4	0.025	1
R01-A	Selenium	D0767-09B	19117		0	U	1.4	0.063	1
R01-A	Silver	D0767-09B	19117		0.81	BE	1.4	0.018	1
R01-A	Zinc	D0767-09B	19117		108	E	2.4	0.053	1
R01-B	Aluminum	D0767-10B	19117		14300	E	9.2	0.31	1
R01-B	Arsenic	D0767-10B	19117		8.1	E	0.92	0.07	1
R01-B	Beryllium	D0767-10B	19117		0.48	E	0.23	0.0056	1
R01-B	Cadmium	D0767-10B	19117		0.23	E	0.23	0.0051	1
R01-B	Chromium	D0767-10B	19117		44.8	E	0.92	0.013	1
R01-B	Copper	D0767-10B	19117		41.2		1.4	0.19	1
R01-B	Iron	D0767-10B	19117		24500	E	18	1.6	2
R01-B	Lead	D0767-10B	19117		30.8	E	0.46	0.038	1
R01-B	Mercury	D0767-10B	19118		0.16	*	0.03	0.0064	1
R01-B	Nickel	D0767-10B	19117		20.9	E	2.3	0.024	1
R01-B	Selenium	D0767-10B	19117		0	U	1.4	0.062	1
R01-B	Silver	D0767-10B	19117		0	UE	1.4	0.018	1
R01-B	Zinc	D0767-10B	19117		111	E	2.3	0.052	1
R01-C	Aluminum	D0767-11B	19117		14100	E	9.2	0.31	1
R01-C	Arsenic	D0767-11B	19117		7.5	E	0.92	0.07	1
R01-C	Beryllium	D0767-11B	19117		0.47	E	0.23	0.0056	1
R01-C	Cadmium	D0767-11B	19117		0.18	BE	0.23	0.0051	1
R01-C	Chromium	D0767-11B	19117		45	E	0.92	0.013	1
R01-C	Copper	D0767-11B	19117		40.8		1.4	0.19	1
R01-C	Iron	D0767-11B	19117		22800	E	18	1.6	2

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
R01-C	Lead	D0767-11B	19117		31.6	E	0.46	0.038	1
R01-C	Mercury	D0767-11B	19118		0.16	*	0.028	0.006	1
R01-C	Nickel	D0767-11B	19117		21	E	2.3	0.024	1
R01-C	Selenium	D0767-11B	19117		0	U	1.4	0.062	1
R01-C	Silver	D0767-11B	19117		0.84	BE	1.4	0.018	1
R01-C	Zinc	D0767-11B	19117		116	E	2.3	0.052	1
R01-D	Aluminum	D0767-12B	19117		13400	E	8.9	0.3	1
R01-D	Arsenic	D0767-12B	19117		8.9	E	0.89	0.068	1
R01-D	Beryllium	D0767-12B	19117		0.46	E	0.22	0.0055	1
R01-D	Cadmium	D0767-12B	19117		0.19	BE	0.22	0.0049	1
R01-D	Chromium	D0767-12B	19117		45.5	E	0.89	0.013	1
R01-D	Copper	D0767-12B	19117		42.5		1.3	0.19	1
R01-D	Iron	D0767-12B	19117		22400	E	18	1.6	2
R01-D	Lead	D0767-12B	19117		33.7	E	0.45	0.037	1
R01-D	Mercury	D0767-12B	19118		0.16	*	0.03	0.0064	1
R01-D	Nickel	D0767-12B	19117		21.1	E	2.2	0.023	1
R01-D	Selenium	D0767-12B	19117		0	U	1.3	0.06	1
R01-D	Silver	D0767-12B	19117		0.75	BE	1.3	0.017	1
R01-D	Zinc	D0767-12B	19117		116	E	2.2	0.05	1
R02-A	Aluminum	D0767-05B	19117		13500	E	11	0.36	1
R02-A	Arsenic	D0767-05B	19117		7.9	E	1.1	0.08	1
R02-A	Beryllium	D0767-05B	19117		0.45	E	0.26	0.0064	1
R02-A	Cadmium	D0767-05B	19117		0.073	BE	0.26	0.0058	1
R02-A	Chromium	D0767-05B	19117		41.3	E	1.1	0.015	1
R02-A	Copper	D0767-05B	19117		35.5		1.6	0.22	1
R02-A	Iron	D0767-05B	19117		22000	E	21	1.8	2
R02-A	Lead	D0767-05B	19117		28.3	E	0.53	0.043	1
R02-A	Mercury	D0767-05B	19118		0.13	*	0.029	0.0061	1
R02-A	Nickel	D0767-05B	19117		19.5	E	2.6	0.027	1
R02-A	Selenium	D0767-05B	19117		0	U	1.6	0.071	1
R02-A	Silver	D0767-05B	19117		0.83	BE	1.6	0.02	1
R02-A	Zinc	D0767-05B	19117		106	E	2.6	0.059	1
R02-B	Aluminum	D0767-06B	19117		13700	E	8.8	0.3	1
R02-B	Arsenic	D0767-06B	19117		6.6	E	0.88	0.067	1
R02-B	Beryllium	D0767-06B	19117		0.46	E	0.22	0.0054	1
R02-B	Cadmium	D0767-06B	19117		0.16	BE	0.22	0.0048	1
R02-B	Chromium	D0767-06B	19117		42.7	E	0.88	0.012	1
R02-B	Copper	D0767-06B	19117		38.4		1.3	0.18	1
R02-B	Iron	D0767-06B	19117		22200	E	18	1.5	2
R02-B	Lead	D0767-06B	19117		29.3	E	0.44	0.036	1
R02-B	Mercury	D0767-06B	19118		0.13	*	0.027	0.0057	1
R02-B	Nickel	D0767-06B	19117		20	E	2.2	0.023	1
R02-B	Selenium	D0767-06B	19117		0	U	1.3	0.059	1
R02-B	Silver	D0767-06B	19117		0.67	BE	1.3	0.017	1
R02-B	Zinc	D0767-06B	19117		109	E	2.2	0.049	1
R02-C	Aluminum	D0767-07B	19117		13100	E	8.3	0.28	1
R02-C	Arsenic	D0767-07B	19117		7.7	E	0.83	0.063	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-2. Metals Results (mg/kg dry weight)

Station	Chemical	LabID	BatchID	Rep	Result	Qualifier	RL	MDL	Dilution
R02-C	Beryllium	D0767-07B	19117		0.46	E	0.21	0.005	1
R02-C	Cadmium	D0767-07B	19117		0.19	BE	0.21	0.0045	1
R02-C	Chromium	D0767-07B	19117		42.9	E	0.83	0.012	1
R02-C	Copper	D0767-07B	19117		40		1.2	0.17	1
R02-C	Iron	D0767-07B	19117		22400	E	17	1.4	2
R02-C	Lead	D0767-07B	19117		31.4	E	0.41	0.034	1
R02-C	Mercury	D0767-07B	19118		0.16	*	0.028	0.006	1
R02-C	Nickel	D0767-07B	19117		19.7	E	2.1	0.021	1
R02-C	Selenium	D0767-07B	19117		0	U	1.2	0.055	1
R02-C	Silver	D0767-07B	19117		0.65	BE	1.2	0.016	1
R02-C	Zinc	D0767-07B	19117		109	E	2.1	0.046	1
R02-D	Aluminum	D0767-08B	19117		13600	E	7.7	0.26	1
R02-D	Arsenic	D0767-08B	19117		9.3	E	0.77	0.058	1
R02-D	Beryllium	D0767-08B	19117		0.48	E	0.19	0.0047	1
R02-D	Cadmium	D0767-08B	19117		0.28	E	0.19	0.0042	1
R02-D	Chromium	D0767-08B	19117		47.7	E	0.77	0.011	1
R02-D	Copper	D0767-08B	19117		46		1.2	0.16	1
R02-D	Iron	D0767-08B	19117		22600	E	15	1.3	2
R02-D	Lead	D0767-08B	19117		35.9	E	0.38	0.031	1
R02-D	Mercury	D0767-08B	19118		0.17	*	0.026	0.0056	1
R02-D	Nickel	D0767-08B	19117		21.4	E	1.9	0.02	1
R02-D	Selenium	D0767-08B	19117		0	U	1.2	0.051	1
R02-D	Silver	D0767-08B	19117		0.42	BE	1.2	0.015	1
R02-D	Zinc	D0767-08B	19117		119	E	1.9	0.043	1
RINSATE	Aluminum	D0767-17B	19119		27.5	B	200	14	1
RINSATE	Arsenic	D0767-17B	19119		0	U	20	1.6	1
RINSATE	Beryllium	D0767-17B	19119		0	U	5	0.15	1
RINSATE	Cadmium	D0767-17B	19119		0	U	5	0.1	1
RINSATE	Chromium	D0767-17B	19119		0.53	B	20	0.38	1
RINSATE	Copper	D0767-17B	19119		6.4	B	30	6.3	1
RINSATE	Iron	D0767-17B	19119		50.5	B	200	19	1
RINSATE	Lead	D0767-17B	19119		1.5	B	10	0.46	1
RINSATE	Mercury	D0767-17B	19120		0	U	0.27	0.064	1
RINSATE	Nickel	D0767-17B	19119		0.75	B	50	0.59	1
RINSATE	Selenium	D0767-17B	19119		0	U	30	0.98	1
RINSATE	Silver	D0767-17B	19119		0	U	30	0.91	1
RINSATE	Zinc	D0767-17B	19119		28.9	B	50	2.3	1

Qualifiers
E: Estimated value due to quality control issues, see QA report.
B: Value detected in method blank.
* Matrix duplicate RPD outside of QC limits.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-A	LPAH	Acenaphthene	D0767-13B	SBLK3Q		8.9	U	8.9	1.0
B03-A	LPAH	Acenaphthene	D0767-13BRE	SBLK3W	LR	36		8.9	1.0
B03-A	LPAH	Acenaphthene	D0767-13BREDL	SBLK3W	DL	40	D	18	2.0
B03-A	LPAH	Acenaphthylene	D0767-13B	SBLK3Q		18	B	8.9	1.0
B03-A	LPAH	Acenaphthylene	D0767-13BRE	SBLK3W	LR	210		8.9	1.0
B03-A	LPAH	Acenaphthylene	D0767-13BREDL	SBLK3W	DL	200	D	18	2.0
B03-A	LPAH	Anthracene	D0767-13B	SBLK3Q		22	B	8.9	1.0
B03-A	LPAH	Anthracene	D0767-13BRE	SBLK3W	LR	180		8.9	1.0
B03-A	LPAH	Anthracene	D0767-13BREDL	SBLK3W	DL	160	D	18	2.0
B03-A	LPAH	Fluorene	D0767-13B	SBLK3Q		8.9	U	8.9	1.0
B03-A	LPAH	Fluorene	D0767-13BRE	SBLK3W	LR	63		8.9	1.0
B03-A	LPAH	Fluorene	D0767-13BREDL	SBLK3W	DL	60	D	18	2.0
B03-A	LPAH	Naphthalene	D0767-13B	SBLK3Q		8.9	U	8.9	1.0
B03-A	LPAH	Naphthalene	D0767-13BRE	SBLK3W	LR	44		8.9	1.0
B03-A	LPAH	Naphthalene	D0767-13BREDL	SBLK3W	DL	46	D	18	2.0
B03-A	LPAH	Phenanthrene	D0767-13B	SBLK3Q		50	B	8.9	1.0
B03-A	LPAH	Phenanthrene	D0767-13BRE	SBLK3W	LR	350		8.9	1.0
B03-A	LPAH	Phenanthrene	D0767-13BREDL	SBLK3W	DL	340	D	18	2.0
B03-A	HPAH	Benzo(a)anthracene	D0767-13B	SBLK3Q		66	B	8.9	1.0
B03-A	HPAH	Benzo(a)anthracene	D0767-13BRE	SBLK3W	LR	410		8.9	1.0
B03-A	HPAH	Benzo(a)anthracene	D0767-13BREDL	SBLK3W	DL	470	D	18	2.0
B03-A	HPAH	Benzo(a)pyrene	D0767-13B	SBLK3Q		80	B	8.9	1.0
B03-A	HPAH	Benzo(a)pyrene	D0767-13BRE	SBLK3W	LR	660		8.9	1.0
B03-A	HPAH	Benzo(a)pyrene	D0767-13BREDL	SBLK3W	DL	680	D	18	2.0
B03-A	HPAH	Benzo(b)fluoranthene	D0767-13B	SBLK3Q		92	B	8.9	1.0
B03-A	HPAH	Benzo(b)fluoranthene	D0767-13BRE	SBLK3W	LR	840		8.9	1.0
B03-A	HPAH	Benzo(b)fluoranthene	D0767-13BREDL	SBLK3W	DL	860	D	18	2.0
B03-A	HPAH	Benzo(g,h,i)perylene	D0767-13B	SBLK3Q		48		8.9	1.0
B03-A	HPAH	Benzo(g,h,i)perylene	D0767-13BRE	SBLK3W	LR	440		8.9	1.0
B03-A	HPAH	Benzo(g,h,i)perylene	D0767-13BREDL	SBLK3W	DL	480	D	18	2.0
B03-A	HPAH	Benzo(k)fluoranthene	D0767-13B	SBLK3Q		44	B	8.9	1.0
B03-A	HPAH	Benzo(k)fluoranthene	D0767-13BRE	SBLK3W	LR	270		8.9	1.0
B03-A	HPAH	Benzo(k)fluoranthene	D0767-13BREDL	SBLK3W	DL	300	D	18	2.0
B03-A	HPAH	Chrysene	D0767-13B	SBLK3Q		83	B	8.9	1.0
B03-A	HPAH	Chrysene	D0767-13BRE	SBLK3W	LR	380		8.9	1.0
B03-A	HPAH	Chrysene	D0767-13BREDL	SBLK3W	DL	480	D	18	2.0
B03-A	HPAH	Dibenzo(a,h)anthracene	D0767-13B	SBLK3Q		14		8.9	1.0
B03-A	HPAH	Dibenzo(a,h)anthracene	D0767-13BRE	SBLK3W	LR	120		8.9	1.0
B03-A	HPAH	Dibenzo(a,h)anthracene	D0767-13BREDL	SBLK3W	DL	120	D	18	2.0
B03-A	HPAH	Fluoranthene	D0767-13B	SBLK3Q		110	B	8.9	1.0
B03-A	HPAH	Fluoranthene	D0767-13BRE	SBLK3W	LR	1200	E	8.9	1.0
B03-A	HPAH	Fluoranthene	D0767-13BREDL	SBLK3W	DL	1000	D	18	2.0
B03-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-13B	SBLK3Q		42		8.9	1.0
B03-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-13BRE	SBLK3W	LR	350		8.9	1.0
B03-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-13BREDL	SBLK3W	DL	380	D	18	2.0
B03-A	HPAH	Pyrene	D0767-13B	SBLK3Q		110		8.9	1.0
B03-A	HPAH	Pyrene	D0767-13BRE	SBLK3W	LR	720		8.9	1.0
B03-A	HPAH	Pyrene	D0767-13BREDL	SBLK3W	DL	910	D	18	2.0
B03-B	LPAH	Acenaphthene	D0767-14B	SBLK3Q		7.8	U	7.8	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-B	LPAH	Acenaphthene	D0767-14BRE	SBLK3W	LR	11		7.8	1.0
B03-B	LPAH	Acenaphthylene	D0767-14B	SBLK3Q		22	B	7.8	1.0
B03-B	LPAH	Acenaphthylene	D0767-14BRE	SBLK3W	LR	82		7.8	1.0
B03-B	LPAH	Anthracene	D0767-14B	SBLK3Q		15	B	7.8	1.0
B03-B	LPAH	Anthracene	D0767-14BRE	SBLK3W	LR	63		7.8	1.0
B03-B	LPAH	Fluorene	D0767-14B	SBLK3Q		7.8	U	7.8	1.0
B03-B	LPAH	Fluorene	D0767-14BRE	SBLK3W	LR	20		7.8	1.0
B03-B	LPAH	Naphthalene	D0767-14B	SBLK3Q		7.8	U	7.8	1.0
B03-B	LPAH	Naphthalene	D0767-14BRE	SBLK3W	LR	17		7.8	1.0
B03-B	LPAH	Phenanthrene	D0767-14B	SBLK3Q		42	B	7.8	1.0
B03-B	LPAH	Phenanthrene	D0767-14BRE	SBLK3W	LR	120		7.8	1.0
B03-B	HPAH	Benzo(a)anthracene	D0767-14B	SBLK3Q		65	B	7.8	1.0
B03-B	HPAH	Benzo(a)anthracene	D0767-14BRE	SBLK3W	LR	180		7.8	1.0
B03-B	HPAH	Benzo(a)pyrene	D0767-14B	SBLK3Q		90	B	7.8	1.0
B03-B	HPAH	Benzo(a)pyrene	D0767-14BRE	SBLK3W	LR	270		7.8	1.0
B03-B	HPAH	Benzo(b)fluoranthene	D0767-14B	SBLK3Q		120	B	7.8	1.0
B03-B	HPAH	Benzo(b)fluoranthene	D0767-14BRE	SBLK3W	LR	330		7.8	1.0
B03-B	HPAH	Benzo(g,h,i)perylene	D0767-14B	SBLK3Q		60		7.8	1.0
B03-B	HPAH	Benzo(g,h,i)perylene	D0767-14BRE	SBLK3W	LR	190		7.8	1.0
B03-B	HPAH	Benzo(k)fluoranthene	D0767-14B	SBLK3Q		39	B	7.8	1.0
B03-B	HPAH	Benzo(k)fluoranthene	D0767-14BRE	SBLK3W	LR	100		7.8	1.0
B03-B	HPAH	Chrysene	D0767-14B	SBLK3Q		80	B	7.8	1.0
B03-B	HPAH	Chrysene	D0767-14BRE	SBLK3W	LR	200		7.8	1.0
B03-B	HPAH	Dibenzo(a,h)anthracene	D0767-14B	SBLK3Q		15		7.8	1.0
B03-B	HPAH	Dibenzo(a,h)anthracene	D0767-14BRE	SBLK3W	LR	52		7.8	1.0
B03-B	HPAH	Fluoranthene	D0767-14B	SBLK3Q		110	B	7.8	1.0
B03-B	HPAH	Fluoranthene	D0767-14BRE	SBLK3W	LR	310		7.8	1.0
B03-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-14B	SBLK3Q		50		7.8	1.0
B03-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-14BRE	SBLK3W	LR	150		7.8	1.0
B03-B	HPAH	Pyrene	D0767-14B	SBLK3Q		140		7.8	1.0
B03-B	HPAH	Pyrene	D0767-14BRE	SBLK3W	LR	370		7.8	1.0
B03-C	LPAH	Acenaphthene	D0767-15B	SBLK3Q		6.9	U	6.9	1.0
B03-C	LPAH	Acenaphthene	D0767-15BRE	SBLK3W	LR	8.6		6.9	1.0
B03-C	LPAH	Acenaphthylene	D0767-15B	SBLK3Q		52	B	6.9	1.0
B03-C	LPAH	Acenaphthylene	D0767-15BRE	SBLK3W	LR	37		6.9	1.0
B03-C	LPAH	Anthracene	D0767-15B	SBLK3Q		38	B	6.9	1.0
B03-C	LPAH	Anthracene	D0767-15BRE	SBLK3W	LR	41		6.9	1.0
B03-C	LPAH	Fluorene	D0767-15B	SBLK3Q		11	B	6.9	1.0
B03-C	LPAH	Fluorene	D0767-15BRE	SBLK3W	LR	16		6.9	1.0
B03-C	LPAH	Naphthalene	D0767-15B	SBLK3Q		13	B	6.9	1.0
B03-C	LPAH	Naphthalene	D0767-15BRE	SBLK3W	LR	26		6.9	1.0
B03-C	LPAH	Phenanthrene	D0767-15B	SBLK3Q		81	B	6.9	1.0
B03-C	LPAH	Phenanthrene	D0767-15BRE	SBLK3W	LR	99		6.9	1.0
B03-C	HPAH	Benzo(a)anthracene	D0767-15B	SBLK3Q		130	B	6.9	1.0
B03-C	HPAH	Benzo(a)anthracene	D0767-15BRE	SBLK3W	LR	130		6.9	1.0
B03-C	HPAH	Benzo(a)pyrene	D0767-15B	SBLK3Q		190	B	6.9	1.0
B03-C	HPAH	Benzo(a)pyrene	D0767-15BRE	SBLK3W	LR	170		6.9	1.0
B03-C	HPAH	Benzo(b)fluoranthene	D0767-15B	SBLK3Q		240	B	6.9	1.0
B03-C	HPAH	Benzo(b)fluoranthene	D0767-15BRE	SBLK3W	LR	220		6.9	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-C	HPAH	Benzo(g,h,i)perylene	D0767-15B	SBLK3Q		120		6.9	1.0
B03-C	HPAH	Benzo(g,h,i)perylene	D0767-15BRE	SBLK3W	LR	120		6.9	1.0
B03-C	HPAH	Benzo(k)fluoranthene	D0767-15B	SBLK3Q		75	B	6.9	1.0
B03-C	HPAH	Benzo(k)fluoranthene	D0767-15BRE	SBLK3W	LR	72		6.9	1.0
B03-C	HPAH	Chrysene	D0767-15B	SBLK3Q		140	B	6.9	1.0
B03-C	HPAH	Chrysene	D0767-15BRE	SBLK3W	LR	140		6.9	1.0
B03-C	HPAH	Dibenzo(a,h)anthracene	D0767-15B	SBLK3Q		34		6.9	1.0
B03-C	HPAH	Dibenzo(a,h)anthracene	D0767-15BRE	SBLK3W	LR	31		6.9	1.0
B03-C	HPAH	Fluoranthene	D0767-15B	SBLK3Q		190	B	6.9	1.0
B03-C	HPAH	Fluoranthene	D0767-15BRE	SBLK3W	LR	220		6.9	1.0
B03-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-15B	SBLK3Q		100		6.9	1.0
B03-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-15BRE	SBLK3W	LR	98		6.9	1.0
B03-C	HPAH	Pyrene	D0767-15B	SBLK3Q		320		6.9	1.0
B03-C	HPAH	Pyrene	D0767-15BRE	SBLK3W	LR	200		6.9	1.0
B03-D	LPAH	Acenaphthene	D0767-16B	SBLK3Q		13	B	6.7	1.0
B03-D	LPAH	Acenaphthene	D0767-16BRE	SBLK3W	LR	180		6.7	1.0
B03-D	LPAH	Acenaphthene	D0767-16BREDL	SBLK3W	DL	180	D	27	4.0
B03-D	LPAH	Acenaphthylene	D0767-16B	SBLK3Q		98	B	6.7	1.0
B03-D	LPAH	Acenaphthylene	D0767-16BRE	SBLK3W	LR	470		6.7	1.0
B03-D	LPAH	Acenaphthylene	D0767-16BREDL	SBLK3W	DL	450	D	27	4.0
B03-D	LPAH	Anthracene	D0767-16B	SBLK3Q		77	B	6.7	1.0
B03-D	LPAH	Anthracene	D0767-16BRE	SBLK3W	LR	400		6.7	1.0
B03-D	LPAH	Anthracene	D0767-16BREDL	SBLK3W	DL	370	D	27	4.0
B03-D	LPAH	Fluorene	D0767-16B	SBLK3Q		20	B	6.7	1.0
B03-D	LPAH	Fluorene	D0767-16BRE	SBLK3W	LR	210		6.7	1.0
B03-D	LPAH	Fluorene	D0767-16BREDL	SBLK3W	DL	210	D	27	4.0
B03-D	LPAH	Naphthalene	D0767-16B	SBLK3Q		20	B	6.7	1.0
B03-D	LPAH	Naphthalene	D0767-16BRE	SBLK3W	LR	180		6.7	1.0
B03-D	LPAH	Naphthalene	D0767-16BREDL	SBLK3W	DL	190	D	27	4.0
B03-D	LPAH	Phenanthrene	D0767-16B	SBLK3Q		130	B	6.7	1.0
B03-D	LPAH	Phenanthrene	D0767-16BRE	SBLK3W	LR	460		6.7	1.0
B03-D	LPAH	Phenanthrene	D0767-16BREDL	SBLK3W	DL	440	D	27	4.0
B03-D	HPAH	Benzo(a)anthracene	D0767-16B	SBLK3Q		230	B	6.7	1.0
B03-D	HPAH	Benzo(a)anthracene	D0767-16BRE	SBLK3W	LR	990	E	6.7	1.0
B03-D	HPAH	Benzo(a)anthracene	D0767-16BREDL	SBLK3W	DL	880	D	27	4.0
B03-D	HPAH	Benzo(a)pyrene	D0767-16B	SBLK3Q		300	B	6.7	1.0
B03-D	HPAH	Benzo(a)pyrene	D0767-16BRE	SBLK3W	LR	930	E	6.7	1.0
B03-D	HPAH	Benzo(a)pyrene	D0767-16BREDL	SBLK3W	DL	1200	D	27	4.0
B03-D	HPAH	Benzo(b)fluoranthene	D0767-16B	SBLK3Q		350	B	6.7	1.0
B03-D	HPAH	Benzo(b)fluoranthene	D0767-16BRE	SBLK3W	LR	1200	E	6.7	1.0
B03-D	HPAH	Benzo(b)fluoranthene	D0767-16BREDL	SBLK3W	DL	1400	D	27	4.0
B03-D	HPAH	Benzo(g,h,i)perylene	D0767-16B	SBLK3Q		170		6.7	1.0
B03-D	HPAH	Benzo(g,h,i)perylene	D0767-16BRE	SBLK3W	LR	680	E	6.7	1.0
B03-D	HPAH	Benzo(g,h,i)perylene	D0767-16BREDL	SBLK3W	DL	790	D	27	4.0
B03-D	HPAH	Benzo(k)fluoranthene	D0767-16B	SBLK3Q		150	B	6.7	1.0
B03-D	HPAH	Benzo(k)fluoranthene	D0767-16BRE	SBLK3W	LR	450		6.7	1.0
B03-D	HPAH	Benzo(k)fluoranthene	D0767-16BREDL	SBLK3W	DL	630	D	27	4.0
B03-D	HPAH	Chrysene	D0767-16B	SBLK3Q		230	B	6.7	1.0
B03-D	HPAH	Chrysene	D0767-16BRE	SBLK3W	LR	870	E	6.7	1.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-D	HPAH	Chrysene	D0767-16BREDL	SBLK3W	DL	850	D	27	4.0
B03-D	HPAH	Dibenzo(a,h)anthracene	D0767-16B	SBLK3Q		50		6.7	1.0
B03-D	HPAH	Dibenzo(a,h)anthracene	D0767-16BRE	SBLK3W	LR	290		6.7	1.0
B03-D	HPAH	Dibenzo(a,h)anthracene	D0767-16BREDL	SBLK3W	DL	320	D	27	4.0
B03-D	HPAH	Fluoranthene	D0767-16B	SBLK3Q		320	B	6.7	1.0
B03-D	HPAH	Fluoranthene	D0767-16BRE	SBLK3W	LR	1400	E	6.7	1.0
B03-D	HPAH	Fluoranthene	D0767-16BREDL	SBLK3W	DL	1100	D	27	4.0
B03-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-16B	SBLK3Q		140		6.7	1.0
B03-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-16BRE	SBLK3W	LR	590		6.7	1.0
B03-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-16BREDL	SBLK3W	DL	660	D	27	4.0
B03-D	HPAH	Pyrene	D0767-16B	SBLK3Q		480		6.7	1.0
B03-D	HPAH	Pyrene	D0767-16BRE	SBLK3W	LR	1400	E	6.7	1.0
B03-D	HPAH	Pyrene	D0767-16BREDL	SBLK3W	DL	1300	D	27	4.0
B04-A	LPAH	Acenaphthene	D0766-17B	SBLK3R		9.2	U	9.2	1.0
B04-A	LPAH	Acenaphthylene	D0766-17B	SBLK3R		25		9.2	1.0
B04-A	LPAH	Anthracene	D0766-17B	SBLK3R		20		9.2	1.0
B04-A	LPAH	Fluorene	D0766-17B	SBLK3R		9.2	U	9.2	1.0
B04-A	LPAH	Naphthalene	D0766-17B	SBLK3R		12		9.2	1.0
B04-A	LPAH	Phenanthrene	D0766-17B	SBLK3R		58		9.2	1.0
B04-A	HPAH	Benzo(a)anthracene	D0766-17B	SBLK3R		84		9.2	1.0
B04-A	HPAH	Benzo(a)pyrene	D0766-17B	SBLK3R		110		9.2	1.0
B04-A	HPAH	Benzo(b)fluoranthene	D0766-17B	SBLK3R		140		9.2	1.0
B04-A	HPAH	Benzo(g,h,i)perylene	D0766-17B	SBLK3R		67		9.2	1.0
B04-A	HPAH	Benzo(k)fluoranthene	D0766-17B	SBLK3R		51		9.2	1.0
B04-A	HPAH	Chrysene	D0766-17B	SBLK3R		100		9.2	1.0
B04-A	HPAH	Dibenzo(a,h)anthracene	D0766-17B	SBLK3R		16		9.2	1.0
B04-A	HPAH	Fluoranthene	D0766-17B	SBLK3R		150		9.2	1.0
B04-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-17B	SBLK3R		60		9.2	1.0
B04-A	HPAH	Pyrene	D0766-17B	SBLK3R		170		9.2	1.0
B04-B	LPAH	Acenaphthene	D0766-18B	SBLK3R		8	U	8	1.0
B04-B	LPAH	Acenaphthylene	D0766-18B	SBLK3R		33		8	1.0
B04-B	LPAH	Anthracene	D0766-18B	SBLK3R		27		8	1.0
B04-B	LPAH	Fluorene	D0766-18B	SBLK3R		8	U	8	1.0
B04-B	LPAH	Naphthalene	D0766-18B	SBLK3R		10		8	1.0
B04-B	LPAH	Phenanthrene	D0766-18B	SBLK3R		58		8	1.0
B04-B	HPAH	Benzo(a)anthracene	D0766-18B	SBLK3R		97		8	1.0
B04-B	HPAH	Benzo(a)pyrene	D0766-18B	SBLK3R		120		8	1.0
B04-B	HPAH	Benzo(b)fluoranthene	D0766-18B	SBLK3R		160		8	1.0
B04-B	HPAH	Benzo(g,h,i)perylene	D0766-18B	SBLK3R		85		8	1.0
B04-B	HPAH	Benzo(k)fluoranthene	D0766-18B	SBLK3R		61		8	1.0
B04-B	HPAH	Chrysene	D0766-18B	SBLK3R		100		8	1.0
B04-B	HPAH	Dibenzo(a,h)anthracene	D0766-18B	SBLK3R		23		8	1.0
B04-B	HPAH	Fluoranthene	D0766-18B	SBLK3R		170		8	1.0
B04-B	HPAH	Indeno(1,2,3-cd)pyrene	D0766-18B	SBLK3R		70		8	1.0
B04-B	HPAH	Pyrene	D0766-18B	SBLK3R		210		8	1.0
B04-C	LPAH	Acenaphthene	D0766-19B	SBLK3R		8.8		6.2	1.0
B04-C	LPAH	Acenaphthylene	D0766-19B	SBLK3R		82		6.2	1.0
B04-C	LPAH	Anthracene	D0766-19B	SBLK3R		52		6.2	1.0
B04-C	LPAH	Fluorene	D0766-19B	SBLK3R		17		6.2	1.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B04-C	LPAH	Naphthalene	D0766-19B	SBLK3R		18		6.2	1.0
B04-C	LPAH	Phenanthrene	D0766-19B	SBLK3R		98		6.2	1.0
B04-C	HPAH	Benzo(a)anthracene	D0766-19B	SBLK3R		180		6.2	1.0
B04-C	HPAH	Benzo(a)pyrene	D0766-19B	SBLK3R		240		6.2	1.0
B04-C	HPAH	Benzo(b)fluoranthene	D0766-19B	SBLK3R		310		6.2	1.0
B04-C	HPAH	Benzo(g,h,i)perylene	D0766-19B	SBLK3R		150		6.2	1.0
B04-C	HPAH	Benzo(k)fluoranthene	D0766-19B	SBLK3R		100		6.2	1.0
B04-C	HPAH	Chrysene	D0766-19B	SBLK3R		210		6.2	1.0
B04-C	HPAH	Dibenzo(a,h)anthracene	D0766-19B	SBLK3R		42		6.2	1.0
B04-C	HPAH	Fluoranthene	D0766-19B	SBLK3R		240		6.2	1.0
B04-C	HPAH	Indeno(1,2,3-cd)pyrene	D0766-19B	SBLK3R		120		6.2	1.0
B04-C	HPAH	Pyrene	D0766-19B	SBLK3R		450		6.2	1.0
B04-D	LPAH	Acenaphthene	D0766-20B	SBLK3R		21		5.8	1.0
B04-D	LPAH	Acenaphthene	D0766-20BDL	SBLK3R	DL	23	D	12	2.0
B04-D	LPAH	Acenaphthylene	D0766-20B	SBLK3R		160		5.8	1.0
B04-D	LPAH	Acenaphthylene	D0766-20BDL	SBLK3R	DL	150	D	12	2.0
B04-D	LPAH	Anthracene	D0766-20B	SBLK3R		120		5.8	1.0
B04-D	LPAH	Anthracene	D0766-20BDL	SBLK3R	DL	120	D	12	2.0
B04-D	LPAH	Fluorene	D0766-20B	SBLK3R		35		5.8	1.0
B04-D	LPAH	Fluorene	D0766-20BDL	SBLK3R	DL	37	D	12	2.0
B04-D	LPAH	Naphthalene	D0766-20B	SBLK3R		35		5.8	1.0
B04-D	LPAH	Naphthalene	D0766-20BDL	SBLK3R	DL	40	D	12	2.0
B04-D	LPAH	Phenanthrene	D0766-20B	SBLK3R		190		5.8	1.0
B04-D	LPAH	Phenanthrene	D0766-20BDL	SBLK3R	DL	210	D	12	2.0
B04-D	HPAH	Benzo(a)anthracene	D0766-20B	SBLK3R		440		5.8	1.0
B04-D	HPAH	Benzo(a)anthracene	D0766-20BDL	SBLK3R	DL	490	D	12	2.0
B04-D	HPAH	Benzo(a)pyrene	D0766-20B	SBLK3R		460		5.8	1.0
B04-D	HPAH	Benzo(a)pyrene	D0766-20BDL	SBLK3R	DL	530	D	12	2.0
B04-D	HPAH	Benzo(b)fluoranthene	D0766-20B	SBLK3R		540		5.8	1.0
B04-D	HPAH	Benzo(b)fluoranthene	D0766-20BDL	SBLK3R	DL	680	D	12	2.0
B04-D	HPAH	Benzo(g,h,i)perylene	D0766-20B	SBLK3R		250		5.8	1.0
B04-D	HPAH	Benzo(g,h,i)perylene	D0766-20BDL	SBLK3R	DL	320	D	12	2.0
B04-D	HPAH	Benzo(k)fluoranthene	D0766-20B	SBLK3R		210		5.8	1.0
B04-D	HPAH	Benzo(k)fluoranthene	D0766-20BDL	SBLK3R	DL	220	D	12	2.0
B04-D	HPAH	Chrysene	D0766-20B	SBLK3R		380		5.8	1.0
B04-D	HPAH	Chrysene	D0766-20BDL	SBLK3R	DL	430	D	12	2.0
B04-D	HPAH	Dibenzo(a,h)anthracene	D0766-20B	SBLK3R		76		5.8	1.0
B04-D	HPAH	Dibenzo(a,h)anthracene	D0766-20BDL	SBLK3R	DL	93	D	12	2.0
B04-D	HPAH	Fluoranthene	D0766-20B	SBLK3R		440		5.8	1.0
B04-D	HPAH	Fluoranthene	D0766-20BDL	SBLK3R	DL	470	D	12	2.0
B04-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-20B	SBLK3R		200		5.8	1.0
B04-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-20BDL	SBLK3R	DL	260	D	12	2.0
B04-D	HPAH	Pyrene	D0766-20B	SBLK3R		1000	E	5.8	1.0
B04-D	HPAH	Pyrene	D0766-20BDL	SBLK3R	DL	1100	D	12	2.0
B05-A	LPAH	Acenaphthene	D0766-13B	SBLK3R		8.9	U	8.9	1.0
B05-A	LPAH	Acenaphthylene	D0766-13B	SBLK3R		19		8.9	1.0
B05-A	LPAH	Anthracene	D0766-13B	SBLK3R		16		8.9	1.0
B05-A	LPAH	Fluorene	D0766-13B	SBLK3R		8.9	U	8.9	1.0
B05-A	LPAH	Naphthalene	D0766-13B	SBLK3R		9.6		8.9	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B05-A	LPAH	Phenanthrene	D0766-13B	SBLK3R		81		8.9	1.0
B05-A	HPAH	Benzo(a)anthracene	D0766-13B	SBLK3R		71		8.9	1.0
B05-A	HPAH	Benzo(a)pyrene	D0766-13B	SBLK3R		92		8.9	1.0
B05-A	HPAH	Benzo(b)fluoranthene	D0766-13B	SBLK3R		130		8.9	1.0
B05-A	HPAH	Benzo(g,h,i)perylene	D0766-13B	SBLK3R		61		8.9	1.0
B05-A	HPAH	Benzo(k)fluoranthene	D0766-13B	SBLK3R		33		8.9	1.0
B05-A	HPAH	Chrysene	D0766-13B	SBLK3R		92		8.9	1.0
B05-A	HPAH	Dibenzo(a,h)anthracene	D0766-13B	SBLK3R		15		8.9	1.0
B05-A	HPAH	Fluoranthene	D0766-13B	SBLK3R		160		8.9	1.0
B05-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-13B	SBLK3R		55		8.9	1.0
B05-A	HPAH	Pyrene	D0766-13B	SBLK3R		160		8.9	1.0
B05-B	LPAH	Acenaphthene	D0766-14B	SBLK3R		14		8	1.0
B05-B	LPAH	Acenaphthylene	D0766-14B	SBLK3R		55		8	1.0
B05-B	LPAH	Anthracene	D0766-14B	SBLK3R		38		8	1.0
B05-B	LPAH	Fluorene	D0766-14B	SBLK3R		21		8	1.0
B05-B	LPAH	Naphthalene	D0766-14B	SBLK3R		15		8	1.0
B05-B	LPAH	Phenanthrene	D0766-14B	SBLK3R		160		8	1.0
B05-B	HPAH	Benzo(a)anthracene	D0766-14B	SBLK3R		150		8	1.0
B05-B	HPAH	Benzo(a)pyrene	D0766-14B	SBLK3R		200		8	1.0
B05-B	HPAH	Benzo(b)fluoranthene	D0766-14B	SBLK3R		250		8	1.0
B05-B	HPAH	Benzo(g,h,i)perylene	D0766-14B	SBLK3R		130		8	1.0
B05-B	HPAH	Benzo(k)fluoranthene	D0766-14B	SBLK3R		100		8	1.0
B05-B	HPAH	Chrysene	D0766-14B	SBLK3R		180		8	1.0
B05-B	HPAH	Dibenzo(a,h)anthracene	D0766-14B	SBLK3R		36		8	1.0
B05-B	HPAH	Fluoranthene	D0766-14B	SBLK3R		320		8	1.0
B05-B	HPAH	Indeno(1,2,3-cd)pyrene	D0766-14B	SBLK3R		110		8	1.0
B05-B	HPAH	Pyrene	D0766-14B	SBLK3R		340		8	1.0
B05-C	LPAH	Acenaphthene	D0766-15B	SBLK3R		11		6.6	1.0
B05-C	LPAH	Acenaphthylene	D0766-15B	SBLK3R		100		6.6	1.0
B05-C	LPAH	Anthracene	D0766-15B	SBLK3R		65		6.6	1.0
B05-C	LPAH	Fluorene	D0766-15B	SBLK3R		22		6.6	1.0
B05-C	LPAH	Naphthalene	D0766-15B	SBLK3R		25		6.6	1.0
B05-C	LPAH	Phenanthrene	D0766-15B	SBLK3R		120		6.6	1.0
B05-C	HPAH	Benzo(a)anthracene	D0766-15B	SBLK3R		230		6.6	1.0
B05-C	HPAH	Benzo(a)pyrene	D0766-15B	SBLK3R		320		6.6	1.0
B05-C	HPAH	Benzo(b)fluoranthene	D0766-15B	SBLK3R		360		6.6	1.0
B05-C	HPAH	Benzo(g,h,i)perylene	D0766-15B	SBLK3R		190		6.6	1.0
B05-C	HPAH	Benzo(k)fluoranthene	D0766-15B	SBLK3R		150		6.6	1.0
B05-C	HPAH	Chrysene	D0766-15B	SBLK3R		260		6.6	1.0
B05-C	HPAH	Dibenzo(a,h)anthracene	D0766-15B	SBLK3R		56		6.6	1.0
B05-C	HPAH	Fluoranthene	D0766-15B	SBLK3R		280		6.6	1.0
B05-C	HPAH	Indeno(1,2,3-cd)pyrene	D0766-15B	SBLK3R		150		6.6	1.0
B05-C	HPAH	Pyrene	D0766-15B	SBLK3R		550		6.6	1.0
B05-D	LPAH	Acenaphthene	D0766-16B	SBLK3R		26		5.8	1.0
B05-D	LPAH	Acenaphthene	D0766-16BDL	SBLK3R	DL	25	D	23	4.0
B05-D	LPAH	Acenaphthylene	D0766-16B	SBLK3R		230		5.8	1.0
B05-D	LPAH	Acenaphthylene	D0766-16BDL	SBLK3R	DL	230	D	23	4.0
B05-D	LPAH	Anthracene	D0766-16B	SBLK3R		160		5.8	1.0
B05-D	LPAH	Anthracene	D0766-16BDL	SBLK3R	DL	160	D	23	4.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B05-D	LPAH	Fluorene	D0766-16B	SBLK3R		48		5.8	1.0
B05-D	LPAH	Fluorene	D0766-16BDL	SBLK3R	DL	49	D	23	4.0
B05-D	LPAH	Naphthalene	D0766-16B	SBLK3R		53		5.8	1.0
B05-D	LPAH	Naphthalene	D0766-16BDL	SBLK3R	DL	57	D	23	4.0
B05-D	LPAH	Phenanthrene	D0766-16B	SBLK3R		230		5.8	1.0
B05-D	LPAH	Phenanthrene	D0766-16BDL	SBLK3R	DL	250	D	23	4.0
B05-D	HPAH	Benzo(a)anthracene	D0766-16B	SBLK3R		600	E	5.8	1.0
B05-D	HPAH	Benzo(a)anthracene	D0766-16BDL	SBLK3R	DL	620	D	23	4.0
B05-D	HPAH	Benzo(a)pyrene	D0766-16B	SBLK3R		640	E	5.8	1.0
B05-D	HPAH	Benzo(a)pyrene	D0766-16BDL	SBLK3R	DL	720	D	23	4.0
B05-D	HPAH	Benzo(b)fluoranthene	D0766-16B	SBLK3R		740	E	5.8	1.0
B05-D	HPAH	Benzo(b)fluoranthene	D0766-16BDL	SBLK3R	DL	880	D	23	4.0
B05-D	HPAH	Benzo(g,h,i)perylene	D0766-16B	SBLK3R		350		5.8	1.0
B05-D	HPAH	Benzo(g,h,i)perylene	D0766-16BDL	SBLK3R	DL	460	D	23	4.0
B05-D	HPAH	Benzo(k)fluoranthene	D0766-16B	SBLK3R		320		5.8	1.0
B05-D	HPAH	Benzo(k)fluoranthene	D0766-16BDL	SBLK3R	DL	340	D	23	4.0
B05-D	HPAH	Chrysene	D0766-16B	SBLK3R		540		5.8	1.0
B05-D	HPAH	Chrysene	D0766-16BDL	SBLK3R	DL	630	D	23	4.0
B05-D	HPAH	Dibenzo(a,h)anthracene	D0766-16B	SBLK3R		110		5.8	1.0
B05-D	HPAH	Dibenzo(a,h)anthracene	D0766-16BDL	SBLK3R	DL	130	D	23	4.0
B05-D	HPAH	Fluoranthene	D0766-16B	SBLK3R		590	E	5.8	1.0
B05-D	HPAH	Fluoranthene	D0766-16BDL	SBLK3R	DL	570	D	23	4.0
B05-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-16B	SBLK3R		280		5.8	1.0
B05-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-16BDL	SBLK3R	DL	360	D	23	4.0
B05-D	HPAH	Pyrene	D0766-16B	SBLK3R		1100	E	5.8	1.0
B05-D	HPAH	Pyrene	D0766-16BDL	SBLK3R	DL	1400	D	23	4.0
B06-A	LPAH	Acenaphthene	D0766-09B	SBLK3R		8.5	U	8.5	1.0
B06-A	LPAH	Acenaphthylene	D0766-09B	SBLK3R		36		8.5	1.0
B06-A	LPAH	Anthracene	D0766-09B	SBLK3R		39		8.5	1.0
B06-A	LPAH	Fluorene	D0766-09B	SBLK3R		15		8.5	1.0
B06-A	LPAH	Naphthalene	D0766-09B	SBLK3R		13		8.5	1.0
B06-A	LPAH	Phenanthrene	D0766-09B	SBLK3R		97		8.5	1.0
B06-A	HPAH	Benzo(a)anthracene	D0766-09B	SBLK3R		110		8.5	1.0
B06-A	HPAH	Benzo(a)pyrene	D0766-09B	SBLK3R		120		8.5	1.0
B06-A	HPAH	Benzo(b)fluoranthene	D0766-09B	SBLK3R		170		8.5	1.0
B06-A	HPAH	Benzo(g,h,i)perylene	D0766-09B	SBLK3R		78		8.5	1.0
B06-A	HPAH	Benzo(k)fluoranthene	D0766-09B	SBLK3R		62		8.5	1.0
B06-A	HPAH	Chrysene	D0766-09B	SBLK3R		150		8.5	1.0
B06-A	HPAH	Dibenzo(a,h)anthracene	D0766-09B	SBLK3R		20		8.5	1.0
B06-A	HPAH	Fluoranthene	D0766-09B	SBLK3R		190		8.5	1.0
B06-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-09B	SBLK3R		69		8.5	1.0
B06-A	HPAH	Pyrene	D0766-09B	SBLK3R		200		8.5	1.0
B06-B	LPAH	Acenaphthene	D0766-10B	SBLK3R		7.3	U	7.3	1.0
B06-B	LPAH	Acenaphthylene	D0766-10B	SBLK3R		22		7.3	1.0
B06-B	LPAH	Anthracene	D0766-10B	SBLK3R		18		7.3	1.0
B06-B	LPAH	Fluorene	D0766-10B	SBLK3R		7.3	U	7.3	1.0
B06-B	LPAH	Naphthalene	D0766-10B	SBLK3R		9.3		7.3	1.0
B06-B	LPAH	Phenanthrene	D0766-10B	SBLK3R		56		7.3	1.0
B06-B	HPAH	Benzo(a)anthracene	D0766-10B	SBLK3R		68		7.3	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B06-B	HPAH	Benzo(a)pyrene	D0766-10B	SBLK3R		89		7.3	1.0
B06-B	HPAH	Benzo(b)fluoranthene	D0766-10B	SBLK3R		120		7.3	1.0
B06-B	HPAH	Benzo(g,h,i)perylene	D0766-10B	SBLK3R		60		7.3	1.0
B06-B	HPAH	Benzo(k)fluoranthene	D0766-10B	SBLK3R		40		7.3	1.0
B06-B	HPAH	Chrysene	D0766-10B	SBLK3R		84		7.3	1.0
B06-B	HPAH	Dibenzo(a,h)anthracene	D0766-10B	SBLK3R		14		7.3	1.0
B06-B	HPAH	Fluoranthene	D0766-10B	SBLK3R		130		7.3	1.0
B06-B	HPAH	Indeno(1,2,3-cd)pyrene	D0766-10B	SBLK3R		50		7.3	1.0
B06-B	HPAH	Pyrene	D0766-10B	SBLK3R		150		7.3	1.0
B06-C	LPAH	Acenaphthene	D0766-11B	SBLK3R		7.3	U	7.3	1.0
B06-C	LPAH	Acenaphthylene	D0766-11B	SBLK3R		31		7.3	1.0
B06-C	LPAH	Anthracene	D0766-11B	SBLK3R		26		7.3	1.0
B06-C	LPAH	Fluorene	D0766-11B	SBLK3R		8.8		7.3	1.0
B06-C	LPAH	Naphthalene	D0766-11B	SBLK3R		16		7.3	1.0
B06-C	LPAH	Phenanthrene	D0766-11B	SBLK3R		69		7.3	1.0
B06-C	HPAH	Benzo(a)anthracene	D0766-11B	SBLK3R		93		7.3	1.0
B06-C	HPAH	Benzo(a)pyrene	D0766-11B	SBLK3R		120		7.3	1.0
B06-C	HPAH	Benzo(b)fluoranthene	D0766-11B	SBLK3R		160		7.3	1.0
B06-C	HPAH	Benzo(g,h,i)perylene	D0766-11B	SBLK3R		86		7.3	1.0
B06-C	HPAH	Benzo(k)fluoranthene	D0766-11B	SBLK3R		65		7.3	1.0
B06-C	HPAH	Chrysene	D0766-11B	SBLK3R		110		7.3	1.0
B06-C	HPAH	Dibenzo(a,h)anthracene	D0766-11B	SBLK3R		23		7.3	1.0
B06-C	HPAH	Fluoranthene	D0766-11B	SBLK3R		160		7.3	1.0
B06-C	HPAH	Indeno(1,2,3-cd)pyrene	D0766-11B	SBLK3R		73		7.3	1.0
B06-C	HPAH	Pyrene	D0766-11B	SBLK3R		190		7.3	1.0
B06-D	LPAH	Acenaphthene	D0766-12B	SBLK3R		7.2	U	7.2	1.0
B06-D	LPAH	Acenaphthylene	D0766-12B	SBLK3R		29		7.2	1.0
B06-D	LPAH	Anthracene	D0766-12B	SBLK3R		24		7.2	1.0
B06-D	LPAH	Fluorene	D0766-12B	SBLK3R		8.6		7.2	1.0
B06-D	LPAH	Naphthalene	D0766-12B	SBLK3R		9.8		7.2	1.0
B06-D	LPAH	Phenanthrene	D0766-12B	SBLK3R		57		7.2	1.0
B06-D	HPAH	Benzo(a)anthracene	D0766-12B	SBLK3R		75		7.2	1.0
B06-D	HPAH	Benzo(a)pyrene	D0766-12B	SBLK3R		100		7.2	1.0
B06-D	HPAH	Benzo(b)fluoranthene	D0766-12B	SBLK3R		140		7.2	1.0
B06-D	HPAH	Benzo(g,h,i)perylene	D0766-12B	SBLK3R		70		7.2	1.0
B06-D	HPAH	Benzo(k)fluoranthene	D0766-12B	SBLK3R		51		7.2	1.0
B06-D	HPAH	Chrysene	D0766-12B	SBLK3R		85		7.2	1.0
B06-D	HPAH	Dibenzo(a,h)anthracene	D0766-12B	SBLK3R		18		7.2	1.0
B06-D	HPAH	Fluoranthene	D0766-12B	SBLK3R		130		7.2	1.0
B06-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-12B	SBLK3R		60		7.2	1.0
B06-D	HPAH	Pyrene	D0766-12B	SBLK3R		170		7.2	1.0
B07-A	LPAH	Acenaphthene	D0767-01B	SBLK3Q		8.9	U	8.9	1.0
B07-A	LPAH	Acenaphthene	D0767-01BRE	SBLK3W	LR	8.9	U	8.9	1.0
B07-A	LPAH	Acenaphthylene	D0767-01B	SBLK3Q		22	B	8.9	1.0
B07-A	LPAH	Acenaphthylene	D0767-01BRE	SBLK3W	LR	53		8.9	1.0
B07-A	LPAH	Anthracene	D0767-01B	SBLK3Q		18	B	8.9	1.0
B07-A	LPAH	Anthracene	D0767-01BRE	SBLK3W	LR	40		8.9	1.0
B07-A	LPAH	Fluorene	D0767-01B	SBLK3Q		8.9	U	8.9	1.0
B07-A	LPAH	Fluorene	D0767-01BRE	SBLK3W	LR	13		8.9	1.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B07-A	LPAH	Naphthalene	D0767-01B	SBLK3Q		8.9	U	8.9	1.0
B07-A	LPAH	Naphthalene	D0767-01BRE	SBLK3W	LR	11		8.9	1.0
B07-A	LPAH	Phenanthrene	D0767-01B	SBLK3Q		38	B	8.9	1.0
B07-A	LPAH	Phenanthrene	D0767-01BRE	SBLK3W	LR	91		8.9	1.0
B07-A	HPAH	Benzo(a)anthracene	D0767-01B	SBLK3Q		60	B	8.9	1.0
B07-A	HPAH	Benzo(a)anthracene	D0767-01BRE	SBLK3W	LR	140		8.9	1.0
B07-A	HPAH	Benzo(a)pyrene	D0767-01B	SBLK3Q		84	B	8.9	1.0
B07-A	HPAH	Benzo(a)pyrene	D0767-01BRE	SBLK3W	LR	210		8.9	1.0
B07-A	HPAH	Benzo(b)fluoranthene	D0767-01B	SBLK3Q		88	B	8.9	1.0
B07-A	HPAH	Benzo(b)fluoranthene	D0767-01BRE	SBLK3W	LR	260		8.9	1.0
B07-A	HPAH	Benzo(g,h,i)perylene	D0767-01B	SBLK3Q		51		8.9	1.0
B07-A	HPAH	Benzo(g,h,i)perylene	D0767-01BRE	SBLK3W	LR	150		8.9	1.0
B07-A	HPAH	Benzo(k)fluoranthene	D0767-01B	SBLK3Q		35	B	8.9	1.0
B07-A	HPAH	Benzo(k)fluoranthene	D0767-01BRE	SBLK3W	LR	100		8.9	1.0
B07-A	HPAH	Chrysene	D0767-01B	SBLK3Q		76	B	8.9	1.0
B07-A	HPAH	Chrysene	D0767-01BRE	SBLK3W	LR	180		8.9	1.0
B07-A	HPAH	Dibenzo(a,h)anthracene	D0767-01B	SBLK3Q		15		8.9	1.0
B07-A	HPAH	Dibenzo(a,h)anthracene	D0767-01BRE	SBLK3W	LR	39		8.9	1.0
B07-A	HPAH	Fluoranthene	D0767-01B	SBLK3Q		100	B	8.9	1.0
B07-A	HPAH	Fluoranthene	D0767-01BRE	SBLK3W	LR	260		8.9	1.0
B07-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-01B	SBLK3Q		43		8.9	1.0
B07-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-01BRE	SBLK3W	LR	130		8.9	1.0
B07-A	HPAH	Pyrene	D0767-01B	SBLK3Q		94		8.9	1.0
B07-A	HPAH	Pyrene	D0767-01BRE	SBLK3W	LR	240		8.9	1.0
B07-B	LPAH	Acenaphthene	D0767-02B	SBLK3Q		8.4	U	8.4	1.0
B07-B	LPAH	Acenaphthene	D0767-02BRE	SBLK3W	LR	8.5	U	8.5	1.0
B07-B	LPAH	Acenaphthylene	D0767-02B	SBLK3Q		14	B	8.4	1.0
B07-B	LPAH	Acenaphthylene	D0767-02BRE	SBLK3W	LR	48		8.5	1.0
B07-B	LPAH	Anthracene	D0767-02B	SBLK3Q		22	B	8.4	1.0
B07-B	LPAH	Anthracene	D0767-02BRE	SBLK3W	LR	39		8.5	1.0
B07-B	LPAH	Fluorene	D0767-02B	SBLK3Q		8.4	U	8.4	1.0
B07-B	LPAH	Fluorene	D0767-02BRE	SBLK3W	LR	12		8.5	1.0
B07-B	LPAH	Naphthalene	D0767-02B	SBLK3Q		8.4	U	8.4	1.0
B07-B	LPAH	Naphthalene	D0767-02BRE	SBLK3W	LR	12		8.5	1.0
B07-B	LPAH	Phenanthrene	D0767-02B	SBLK3Q		86	B	8.4	1.0
B07-B	LPAH	Phenanthrene	D0767-02BRE	SBLK3W	LR	84		8.5	1.0
B07-B	HPAH	Benzo(a)anthracene	D0767-02B	SBLK3Q		72	B	8.4	1.0
B07-B	HPAH	Benzo(a)anthracene	D0767-02BRE	SBLK3W	LR	130		8.5	1.0
B07-B	HPAH	Benzo(a)pyrene	D0767-02B	SBLK3Q		85	B	8.4	1.0
B07-B	HPAH	Benzo(a)pyrene	D0767-02BRE	SBLK3W	LR	200		8.5	1.0
B07-B	HPAH	Benzo(b)fluoranthene	D0767-02B	SBLK3Q		100	B	8.4	1.0
B07-B	HPAH	Benzo(b)fluoranthene	D0767-02BRE	SBLK3W	LR	230		8.5	1.0
B07-B	HPAH	Benzo(g,h,i)perylene	D0767-02B	SBLK3Q		54		8.4	1.0
B07-B	HPAH	Benzo(g,h,i)perylene	D0767-02BRE	SBLK3W	LR	140		8.5	1.0
B07-B	HPAH	Benzo(k)fluoranthene	D0767-02B	SBLK3Q		38	B	8.4	1.0
B07-B	HPAH	Benzo(k)fluoranthene	D0767-02BRE	SBLK3W	LR	98		8.5	1.0
B07-B	HPAH	Chrysene	D0767-02B	SBLK3Q		81	B	8.4	1.0
B07-B	HPAH	Chrysene	D0767-02BRE	SBLK3W	LR	170		8.5	1.0
B07-B	HPAH	Dibenzo(a,h)anthracene	D0767-02B	SBLK3Q		16		8.4	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B07-B	HPAH	Dibenzo(a,h)anthracene	D0767-02BRE	SBLK3W	LR	36		8.5	1.0
B07-B	HPAH	Fluoranthene	D0767-02B	SBLK3Q		180	B	8.4	1.0
B07-B	HPAH	Fluoranthene	D0767-02BRE	SBLK3W	LR	240		8.5	1.0
B07-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-02B	SBLK3Q		48		8.4	1.0
B07-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-02BRE	SBLK3W	LR	110		8.5	1.0
B07-B	HPAH	Pyrene	D0767-02B	SBLK3Q		140		8.4	1.0
B07-B	HPAH	Pyrene	D0767-02BRE	SBLK3W	LR	250		8.5	1.0
B07-C	LPAH	Acenaphthene	D0767-03B	SBLK3Q		10	B	7.7	1.0
B07-C	LPAH	Acenaphthene	D0767-03BRE	SBLK3W	LR	15		7.7	1.0
B07-C	LPAH	Acenaphthylene	D0767-03B	SBLK3Q		29	B	7.7	1.0
B07-C	LPAH	Acenaphthylene	D0767-03BRE	SBLK3W	LR	52		7.7	1.0
B07-C	LPAH	Anthracene	D0767-03B	SBLK3Q		41	B	7.7	1.0
B07-C	LPAH	Anthracene	D0767-03BRE	SBLK3W	LR	56		7.7	1.0
B07-C	LPAH	Fluorene	D0767-03B	SBLK3Q		13	B	7.7	1.0
B07-C	LPAH	Fluorene	D0767-03BRE	SBLK3W	LR	19		7.7	1.0
B07-C	LPAH	Naphthalene	D0767-03B	SBLK3Q		8.4	B	7.7	1.0
B07-C	LPAH	Naphthalene	D0767-03BRE	SBLK3W	LR	14		7.7	1.0
B07-C	LPAH	Phenanthrene	D0767-03B	SBLK3Q		92	B	7.7	1.0
B07-C	LPAH	Phenanthrene	D0767-03BRE	SBLK3W	LR	150		7.7	1.0
B07-C	HPAH	Benzo(a)anthracene	D0767-03B	SBLK3Q		98	B	7.7	1.0
B07-C	HPAH	Benzo(a)anthracene	D0767-03BRE	SBLK3W	LR	200		7.7	1.0
B07-C	HPAH	Benzo(a)pyrene	D0767-03B	SBLK3Q		120	B	7.7	1.0
B07-C	HPAH	Benzo(a)pyrene	D0767-03BRE	SBLK3W	LR	220		7.7	1.0
B07-C	HPAH	Benzo(b)fluoranthene	D0767-03B	SBLK3Q		110	B	7.7	1.0
B07-C	HPAH	Benzo(b)fluoranthene	D0767-03BRE	SBLK3W	LR	280		7.7	1.0
B07-C	HPAH	Benzo(g,h,i)perylene	D0767-03B	SBLK3Q		63		7.7	1.0
B07-C	HPAH	Benzo(g,h,i)perylene	D0767-03BRE	SBLK3W	LR	160		7.7	1.0
B07-C	HPAH	Benzo(k)fluoranthene	D0767-03B	SBLK3Q		53	B	7.7	1.0
B07-C	HPAH	Benzo(k)fluoranthene	D0767-03BRE	SBLK3W	LR	120		7.7	1.0
B07-C	HPAH	Chrysene	D0767-03B	SBLK3Q		110	B	7.7	1.0
B07-C	HPAH	Chrysene	D0767-03BRE	SBLK3W	LR	160		7.7	1.0
B07-C	HPAH	Dibenzo(a,h)anthracene	D0767-03B	SBLK3Q		16		7.7	1.0
B07-C	HPAH	Dibenzo(a,h)anthracene	D0767-03BRE	SBLK3W	LR	42		7.7	1.0
B07-C	HPAH	Fluoranthene	D0767-03B	SBLK3Q		150	B	7.7	1.0
B07-C	HPAH	Fluoranthene	D0767-03BRE	SBLK3W	LR	340		7.7	1.0
B07-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-03B	SBLK3Q		52		7.7	1.0
B07-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-03BRE	SBLK3W	LR	140		7.7	1.0
B07-C	HPAH	Pyrene	D0767-03B	SBLK3Q		170		7.7	1.0
B07-C	HPAH	Pyrene	D0767-03BRE	SBLK3W	LR	270		7.7	1.0
B07-D	LPAH	Acenaphthene	D0767-04B	SBLK3Q		7.3	U	7.3	1.0
B07-D	LPAH	Acenaphthene	D0767-04BRE	SBLK3W	LR	8.2		7.3	1.0
B07-D	LPAH	Acenaphthylene	D0767-04B	SBLK3Q		27	B	7.3	1.0
B07-D	LPAH	Acenaphthylene	D0767-04BRE	SBLK3W	LR	65		7.3	1.0
B07-D	LPAH	Anthracene	D0767-04B	SBLK3Q		35	B	7.3	1.0
B07-D	LPAH	Anthracene	D0767-04BRE	SBLK3W	LR	45		7.3	1.0
B07-D	LPAH	Fluorene	D0767-04B	SBLK3Q		7.8	B	7.3	1.0
B07-D	LPAH	Fluorene	D0767-04BRE	SBLK3W	LR	15		7.3	1.0
B07-D	LPAH	Naphthalene	D0767-04B	SBLK3Q		9.6	B	7.3	1.0
B07-D	LPAH	Naphthalene	D0767-04BRE	SBLK3W	LR	16		7.3	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B07-D	LPAH	Phenanthrene	D0767-04B	SBLK3Q		62	B	7.3	1.0
B07-D	LPAH	Phenanthrene	D0767-04BRE	SBLK3W	LR	94		7.3	1.0
B07-D	HPAH	Benzo(a)anthracene	D0767-04B	SBLK3Q		81	B	7.3	1.0
B07-D	HPAH	Benzo(a)anthracene	D0767-04BRE	SBLK3W	LR	120		7.3	1.0
B07-D	HPAH	Benzo(a)pyrene	D0767-04B	SBLK3Q		120	B	7.3	1.0
B07-D	HPAH	Benzo(a)pyrene	D0767-04BRE	SBLK3W	LR	210		7.3	1.0
B07-D	HPAH	Benzo(b)fluoranthene	D0767-04B	SBLK3Q		150	B	7.3	1.0
B07-D	HPAH	Benzo(b)fluoranthene	D0767-04BRE	SBLK3W	LR	270		7.3	1.0
B07-D	HPAH	Benzo(g,h,i)perylene	D0767-04B	SBLK3Q		77		7.3	1.0
B07-D	HPAH	Benzo(g,h,i)perylene	D0767-04BRE	SBLK3W	LR	160		7.3	1.0
B07-D	HPAH	Benzo(k)fluoranthene	D0767-04B	SBLK3Q		42	B	7.3	1.0
B07-D	HPAH	Benzo(k)fluoranthene	D0767-04BRE	SBLK3W	LR	90		7.3	1.0
B07-D	HPAH	Chrysene	D0767-04B	SBLK3Q		100	B	7.3	1.0
B07-D	HPAH	Chrysene	D0767-04BRE	SBLK3W	LR	180		7.3	1.0
B07-D	HPAH	Dibenzo(a,h)anthracene	D0767-04B	SBLK3Q		20		7.3	1.0
B07-D	HPAH	Dibenzo(a,h)anthracene	D0767-04BRE	SBLK3W	LR	41		7.3	1.0
B07-D	HPAH	Fluoranthene	D0767-04B	SBLK3Q		150	B	7.3	1.0
B07-D	HPAH	Fluoranthene	D0767-04BRE	SBLK3W	LR	240		7.3	1.0
B07-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-04B	SBLK3Q		65		7.3	1.0
B07-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-04BRE	SBLK3W	LR	130		7.3	1.0
B07-D	HPAH	Pyrene	D0767-04B	SBLK3Q		210		7.3	1.0
B07-D	HPAH	Pyrene	D0767-04BRE	SBLK3W	LR	310		7.3	1.0
C1-A	LPAH	Acenaphthene	D0766-05B	SBLK3R		200		6.6	1.0
C1-A	LPAH	Acenaphthene	D0766-05BDL	SBLK3R	DL	240	D	40	6.0
C1-A	LPAH	Acenaphthylene	D0766-05B	SBLK3R		200		6.6	1.0
C1-A	LPAH	Acenaphthylene	D0766-05BDL	SBLK3R	DL	210	D	40	6.0
C1-A	LPAH	Anthracene	D0766-05B	SBLK3R		380		6.6	1.0
C1-A	LPAH	Anthracene	D0766-05BDL	SBLK3R	DL	440	D	40	6.0
C1-A	LPAH	Fluorene	D0766-05B	SBLK3R		140		6.6	1.0
C1-A	LPAH	Fluorene	D0766-05BDL	SBLK3R	DL	160	D	40	6.0
C1-A	LPAH	Naphthalene	D0766-05B	SBLK3R		78		6.6	1.0
C1-A	LPAH	Naphthalene	D0766-05BDL	SBLK3R	DL	87	D	40	6.0
C1-A	LPAH	Phenanthrene	D0766-05B	SBLK3R		1000	E	6.6	1.0
C1-A	LPAH	Phenanthrene	D0766-05BDL	SBLK3R	DL	1200	D	40	6.0
C1-A	HPAH	Benzo(a)anthracene	D0766-05B	SBLK3R		790	E	6.6	1.0
C1-A	HPAH	Benzo(a)anthracene	D0766-05BDL	SBLK3R	DL	1000	D	40	6.0
C1-A	HPAH	Benzo(a)pyrene	D0766-05B	SBLK3R		680	E	6.6	1.0
C1-A	HPAH	Benzo(a)pyrene	D0766-05BDL	SBLK3R	DL	910	D	40	6.0
C1-A	HPAH	Benzo(b)fluoranthene	D0766-05B	SBLK3R		870	E	6.6	1.0
C1-A	HPAH	Benzo(b)fluoranthene	D0766-05BDL	SBLK3R	DL	1100	D	40	6.0
C1-A	HPAH	Benzo(g,h,i)perylene	D0766-05B	SBLK3R		370		6.6	1.0
C1-A	HPAH	Benzo(g,h,i)perylene	D0766-05BDL	SBLK3R	DL	560	D	40	6.0
C1-A	HPAH	Benzo(k)fluoranthene	D0766-05B	SBLK3R		250		6.6	1.0
C1-A	HPAH	Benzo(k)fluoranthene	D0766-05BDL	SBLK3R	DL	440	D	40	6.0
C1-A	HPAH	Chrysene	D0766-05B	SBLK3R		870	E	6.6	1.0
C1-A	HPAH	Chrysene	D0766-05BDL	SBLK3R	DL	1100	D	40	6.0
C1-A	HPAH	Dibenzo(a,h)anthracene	D0766-05B	SBLK3R		110		6.6	1.0
C1-A	HPAH	Dibenzo(a,h)anthracene	D0766-05BDL	SBLK3R	DL	160	D	40	6.0
C1-A	HPAH	Fluoranthene	D0766-05B	SBLK3R		1900	E	6.6	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C1-A	HPAH	Fluoranthene	D0766-05BDL	SBLK3R	DL	2100	D	40	6.0
C1-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-05B	SBLK3R		300		6.6	1.0
C1-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-05BDL	SBLK3R	DL	480	D	40	6.0
C1-A	HPAH	Pyrene	D0766-05B	SBLK3R		1500	E	6.6	1.0
C1-A	HPAH	Pyrene	D0766-05BDL	SBLK3R	DL	2000	D	40	6.0
C1-B	LPAH	Acenaphthene	D0766-06B	SBLK3R		60		6.3	1.0
C1-B	LPAH	Acenaphthylene	D0766-06B	SBLK3R		45		6.3	1.0
C1-B	LPAH	Anthracene	D0766-06B	SBLK3R		98		6.3	1.0
C1-B	LPAH	Fluorene	D0766-06B	SBLK3R		29		6.3	1.0
C1-B	LPAH	Naphthalene	D0766-06B	SBLK3R		18		6.3	1.0
C1-B	LPAH	Phenanthrene	D0766-06B	SBLK3R		140		6.3	1.0
C1-B	HPAH	Benzo(a)anthracene	D0766-06B	SBLK3R		140		6.3	1.0
C1-B	HPAH	Benzo(a)pyrene	D0766-06B	SBLK3R		120		6.3	1.0
C1-B	HPAH	Benzo(b)fluoranthene	D0766-06B	SBLK3R		140		6.3	1.0
C1-B	HPAH	Benzo(g,h,i)perylene	D0766-06B	SBLK3R		72		6.3	1.0
C1-B	HPAH	Benzo(k)fluoranthene	D0766-06B	SBLK3R		58		6.3	1.0
C1-B	HPAH	Chrysene	D0766-06B	SBLK3R		170		6.3	1.0
C1-B	HPAH	Dibenzo(a,h)anthracene	D0766-06B	SBLK3R		21		6.3	1.0
C1-B	HPAH	Fluoranthene	D0766-06B	SBLK3R		280		6.3	1.0
C1-B	HPAH	Indeno(1,2,3-cd)pyrene	D0766-06B	SBLK3R		56		6.3	1.0
C1-B	HPAH	Pyrene	D0766-06B	SBLK3R		320		6.3	1.0
C1-C	LPAH	Acenaphthene	D0766-07B	SBLK3R		42		6.1	1.0
C1-C	LPAH	Acenaphthylene	D0766-07B	SBLK3R		20		6.1	1.0
C1-C	LPAH	Anthracene	D0766-07B	SBLK3R		47		6.1	1.0
C1-C	LPAH	Fluorene	D0766-07B	SBLK3R		23		6.1	1.0
C1-C	LPAH	Naphthalene	D0766-07B	SBLK3R		23		6.1	1.0
C1-C	LPAH	Phenanthrene	D0766-07B	SBLK3R		98		6.1	1.0
C1-C	HPAH	Benzo(a)anthracene	D0766-07B	SBLK3R		49		6.1	1.0
C1-C	HPAH	Benzo(a)pyrene	D0766-07B	SBLK3R		44		6.1	1.0
C1-C	HPAH	Benzo(b)fluoranthene	D0766-07B	SBLK3R		50		6.1	1.0
C1-C	HPAH	Benzo(g,h,i)perylene	D0766-07B	SBLK3R		29		6.1	1.0
C1-C	HPAH	Benzo(k)fluoranthene	D0766-07B	SBLK3R		19		6.1	1.0
C1-C	HPAH	Chrysene	D0766-07B	SBLK3R		61		6.1	1.0
C1-C	HPAH	Dibenzo(a,h)anthracene	D0766-07B	SBLK3R		11		6.1	1.0
C1-C	HPAH	Fluoranthene	D0766-07B	SBLK3R		110		6.1	1.0
C1-C	HPAH	Indeno(1,2,3-cd)pyrene	D0766-07B	SBLK3R		23		6.1	1.0
C1-C	HPAH	Pyrene	D0766-07B	SBLK3R		120		6.1	1.0
C1-D	LPAH	Acenaphthene	D0766-08B	SBLK3R		760	E	6.4	1.0
C1-D	LPAH	Acenaphthene	D0766-08BDL	SBLK3R	DL	770	D	64	10.0
C1-D	LPAH	Acenaphthylene	D0766-08B	SBLK3R		890	E	6.4	1.0
C1-D	LPAH	Acenaphthylene	D0766-08BDL	SBLK3R	DL	780	D	64	10.0
C1-D	LPAH	Anthracene	D0766-08B	SBLK3R		1400	E	6.4	1.0
C1-D	LPAH	Anthracene	D0766-08BDL	SBLK3R	DL	1400	D	64	10.0
C1-D	LPAH	Fluorene	D0766-08B	SBLK3R		690	E	6.4	1.0
C1-D	LPAH	Fluorene	D0766-08BDL	SBLK3R	DL	680	D	64	10.0
C1-D	LPAH	Naphthalene	D0766-08B	SBLK3R		520		6.4	1.0
C1-D	LPAH	Naphthalene	D0766-08BDL	SBLK3R	DL	540	D	64	10.0
C1-D	LPAH	Phenanthrene	D0766-08B	SBLK3R		2900	E	6.4	1.0
C1-D	LPAH	Phenanthrene	D0766-08BDL	SBLK3R	DL	3300	D	64	10.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C1-D	HPAH	Benzo(a)anthracene	D0766-08B	SBLK3R		2100	E	6.4	1.0
C1-D	HPAH	Benzo(a)anthracene	D0766-08BDL	SBLK3R	DL	2200	D	64	10.0
C1-D	HPAH	Benzo(a)pyrene	D0766-08B	SBLK3R		1100	E	6.4	1.0
C1-D	HPAH	Benzo(a)pyrene	D0766-08BDL	SBLK3R	DL	1700	D	64	10.0
C1-D	HPAH	Benzo(b)fluoranthene	D0766-08B	SBLK3R		1300	E	6.4	1.0
C1-D	HPAH	Benzo(b)fluoranthene	D0766-08BDL	SBLK3R	DL	2300	D	64	10.0
C1-D	HPAH	Benzo(g,h,i)perylene	D0766-08B	SBLK3R		700	E	6.4	1.0
C1-D	HPAH	Benzo(g,h,i)perylene	D0766-08BDL	SBLK3R	DL	1000	D	64	10.0
C1-D	HPAH	Benzo(k)fluoranthene	D0766-08B	SBLK3R		460		6.4	1.0
C1-D	HPAH	Benzo(k)fluoranthene	D0766-08BDL	SBLK3R	DL	720	D	64	10.0
C1-D	HPAH	Chrysene	D0766-08B	SBLK3R		2600	E	6.4	1.0
C1-D	HPAH	Chrysene	D0766-08BDL	SBLK3R	DL	2800	D	64	10.0
C1-D	HPAH	Dibenzo(a,h)anthracene	D0766-08B	SBLK3R		230		6.4	1.0
C1-D	HPAH	Dibenzo(a,h)anthracene	D0766-08BDL	SBLK3R	DL	300	D	64	10.0
C1-D	HPAH	Fluoranthene	D0766-08B	SBLK3R		4000	E	6.4	1.0
C1-D	HPAH	Fluoranthene	D0766-08BDL	SBLK3R	DL	4100	D	64	10.0
C1-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-08B	SBLK3R		570		6.4	1.0
C1-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-08BDL	SBLK3R	DL	780	D	64	10.0
C1-D	HPAH	Pyrene	D0766-08B	SBLK3R		3500	E	6.4	1.0
C1-D	HPAH	Pyrene	D0766-08BDL	SBLK3R	DL	4200	D	64	10.0
C2-A	LPAH	Acenaphthene	D0766-01B	SBLK3R		140		6.7	1.0
C2-A	LPAH	Acenaphthene	D0766-01BDL	SBLK3R	DL	170	D	40	6.0
C2-A	LPAH	Acenaphthylene	D0766-01B	SBLK3R		310		6.7	1.0
C2-A	LPAH	Acenaphthylene	D0766-01BDL	SBLK3R	DL	330	D	40	6.0
C2-A	LPAH	Anthracene	D0766-01B	SBLK3R		460		6.7	1.0
C2-A	LPAH	Anthracene	D0766-01BDL	SBLK3R	DL	480	D	40	6.0
C2-A	LPAH	Fluorene	D0766-01B	SBLK3R		100		6.7	1.0
C2-A	LPAH	Fluorene	D0766-01BDL	SBLK3R	DL	110	D	40	6.0
C2-A	LPAH	Naphthalene	D0766-01B	SBLK3R		69		6.7	1.0
C2-A	LPAH	Naphthalene	D0766-01BDL	SBLK3R	DL	76	D	40	6.0
C2-A	LPAH	Phenanthrene	D0766-01B	SBLK3R		480		6.7	1.0
C2-A	LPAH	Phenanthrene	D0766-01BDL	SBLK3R	DL	560	D	40	6.0
C2-A	HPAH	Benzo(a)anthracene	D0766-01B	SBLK3R		960	E	6.7	1.0
C2-A	HPAH	Benzo(a)anthracene	D0766-01BDL	SBLK3R	DL	1100	D	40	6.0
C2-A	HPAH	Benzo(a)pyrene	D0766-01B	SBLK3R		710	E	6.7	1.0
C2-A	HPAH	Benzo(a)pyrene	D0766-01BDL	SBLK3R	DL	990	D	40	6.0
C2-A	HPAH	Benzo(b)fluoranthene	D0766-01B	SBLK3R		900	E	6.7	1.0
C2-A	HPAH	Benzo(b)fluoranthene	D0766-01BDL	SBLK3R	DL	1200	D	40	6.0
C2-A	HPAH	Benzo(g,h,i)perylene	D0766-01B	SBLK3R		420		6.7	1.0
C2-A	HPAH	Benzo(g,h,i)perylene	D0766-01BDL	SBLK3R	DL	610	D	40	6.0
C2-A	HPAH	Benzo(k)fluoranthene	D0766-01B	SBLK3R		280		6.7	1.0
C2-A	HPAH	Benzo(k)fluoranthene	D0766-01BDL	SBLK3R	DL	460	D	40	6.0
C2-A	HPAH	Chrysene	D0766-01B	SBLK3R		1100	E	6.7	1.0
C2-A	HPAH	Chrysene	D0766-01BDL	SBLK3R	DL	1200	D	40	6.0
C2-A	HPAH	Dibenzo(a,h)anthracene	D0766-01B	SBLK3R		130		6.7	1.0
C2-A	HPAH	Dibenzo(a,h)anthracene	D0766-01BDL	SBLK3R	DL	180	D	40	6.0
C2-A	HPAH	Fluoranthene	D0766-01B	SBLK3R		1800	E	6.7	1.0
C2-A	HPAH	Fluoranthene	D0766-01BDL	SBLK3R	DL	1900	D	40	6.0
C2-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-01B	SBLK3R		340		6.7	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C2-A	HPAH	Indeno(1,2,3-cd)pyrene	D0766-01BDL	SBLK3R	DL	480	D	40	6.0
C2-A	HPAH	Pyrene	D0766-01B	SBLK3R		1700	E	6.7	1.0
C2-A	HPAH	Pyrene	D0766-01BDL	SBLK3R	DL	2200	D	40	6.0
C2-B	LPAH	Acenaphthene	D0766-02B	SBLK3R		51		6.3	1.0
C2-B	LPAH	Acenaphthylene	D0766-02B	SBLK3R		35		6.3	1.0
C2-B	LPAH	Anthracene	D0766-02B	SBLK3R		70		6.3	1.0
C2-B	LPAH	Fluorene	D0766-02B	SBLK3R		24		6.3	1.0
C2-B	LPAH	Naphthalene	D0766-02B	SBLK3R		18		6.3	1.0
C2-B	LPAH	Phenanthrene	D0766-02B	SBLK3R		90		6.3	1.0
C2-B	HPAH	Benzo(a)anthracene	D0766-02B	SBLK3R		120		6.3	1.0
C2-B	HPAH	Benzo(a)pyrene	D0766-02B	SBLK3R		100		6.3	1.0
C2-B	HPAH	Benzo(b)fluoranthene	D0766-02B	SBLK3R		130		6.3	1.0
C2-B	HPAH	Benzo(g,h,i)perylene	D0766-02B	SBLK3R		66		6.3	1.0
C2-B	HPAH	Benzo(k)fluoranthene	D0766-02B	SBLK3R		50		6.3	1.0
C2-B	HPAH	Chrysene	D0766-02B	SBLK3R		140		6.3	1.0
C2-B	HPAH	Dibenzo(a,h)anthracene	D0766-02B	SBLK3R		20		6.3	1.0
C2-B	HPAH	Fluoranthene	D0766-02B	SBLK3R		230		6.3	1.0
C2-B	HPAH	Indeno(1,2,3-cd)pyrene	D0766-02B	SBLK3R		54		6.3	1.0
C2-B	HPAH	Pyrene	D0766-02B	SBLK3R		270		6.3	1.0
C2-C	LPAH	Acenaphthene	D0766-03B	SBLK3R		71		5.9	1.0
C2-C	LPAH	Acenaphthylene	D0766-03B	SBLK3R		37		5.9	1.0
C2-C	LPAH	Anthracene	D0766-03B	SBLK3R		75		5.9	1.0
C2-C	LPAH	Fluorene	D0766-03B	SBLK3R		45		5.9	1.0
C2-C	LPAH	Naphthalene	D0766-03B	SBLK3R		31		5.9	1.0
C2-C	LPAH	Phenanthrene	D0766-03B	SBLK3R		210		5.9	1.0
C2-C	HPAH	Benzo(a)anthracene	D0766-03B	SBLK3R		110		5.9	1.0
C2-C	HPAH	Benzo(a)pyrene	D0766-03B	SBLK3R		96		5.9	1.0
C2-C	HPAH	Benzo(b)fluoranthene	D0766-03B	SBLK3R		120		5.9	1.0
C2-C	HPAH	Benzo(g,h,i)perylene	D0766-03B	SBLK3R		61		5.9	1.0
C2-C	HPAH	Benzo(k)fluoranthene	D0766-03B	SBLK3R		47		5.9	1.0
C2-C	HPAH	Chrysene	D0766-03B	SBLK3R		150		5.9	1.0
C2-C	HPAH	Dibenzo(a,h)anthracene	D0766-03B	SBLK3R		18		5.9	1.0
C2-C	HPAH	Fluoranthene	D0766-03B	SBLK3R		240		5.9	1.0
C2-C	HPAH	Indeno(1,2,3-cd)pyrene	D0766-03B	SBLK3R		48		5.9	1.0
C2-C	HPAH	Pyrene	D0766-03B	SBLK3R		270		5.9	1.0
C2-D	LPAH	Acenaphthene	D0766-04B	SBLK3R		320		6.2	1.0
C2-D	LPAH	Acenaphthene	D0766-04BDL	SBLK3R	DL	350	D	37	6.0
C2-D	LPAH	Acenaphthylene	D0766-04B	SBLK3R		260		6.2	1.0
C2-D	LPAH	Acenaphthylene	D0766-04BDL	SBLK3R	DL	250	D	37	6.0
C2-D	LPAH	Anthracene	D0766-04B	SBLK3R		470		6.2	1.0
C2-D	LPAH	Anthracene	D0766-04BDL	SBLK3R	DL	500	D	37	6.0
C2-D	LPAH	Fluorene	D0766-04B	SBLK3R		260		6.2	1.0
C2-D	LPAH	Fluorene	D0766-04BDL	SBLK3R	DL	280	D	37	6.0
C2-D	LPAH	Naphthalene	D0766-04B	SBLK3R		220		6.2	1.0
C2-D	LPAH	Naphthalene	D0766-04BDL	SBLK3R	DL	230	D	37	6.0
C2-D	LPAH	Phenanthrene	D0766-04B	SBLK3R		1300	E	6.2	1.0
C2-D	LPAH	Phenanthrene	D0766-04BDL	SBLK3R	DL	1400	D	37	6.0
C2-D	HPAH	Benzo(a)anthracene	D0766-04B	SBLK3R		760	E	6.2	1.0
C2-D	HPAH	Benzo(a)anthracene	D0766-04BDL	SBLK3R	DL	860	D	37	6.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C2-D	HPAH	Benzo(a)pyrene	D0766-04B	SBLK3R		570		6.2	1.0
C2-D	HPAH	Benzo(a)pyrene	D0766-04BDL	SBLK3R	DL	750	D	37	6.0
C2-D	HPAH	Benzo(b)fluoranthene	D0766-04B	SBLK3R		690	E	6.2	1.0
C2-D	HPAH	Benzo(b)fluoranthene	D0766-04BDL	SBLK3R	DL	920	D	37	6.0
C2-D	HPAH	Benzo(g,h,i)perylene	D0766-04B	SBLK3R		310		6.2	1.0
C2-D	HPAH	Benzo(g,h,i)perylene	D0766-04BDL	SBLK3R	DL	450	D	37	6.0
C2-D	HPAH	Benzo(k)fluoranthene	D0766-04B	SBLK3R		230		6.2	1.0
C2-D	HPAH	Benzo(k)fluoranthene	D0766-04BDL	SBLK3R	DL	340	D	37	6.0
C2-D	HPAH	Chrysene	D0766-04B	SBLK3R		920	E	6.2	1.0
C2-D	HPAH	Chrysene	D0766-04BDL	SBLK3R	DL	1000	D	37	6.0
C2-D	HPAH	Dibenzo(a,h)anthracene	D0766-04B	SBLK3R		98		6.2	1.0
C2-D	HPAH	Dibenzo(a,h)anthracene	D0766-04BDL	SBLK3R	DL	130	D	37	6.0
C2-D	HPAH	Fluoranthene	D0766-04B	SBLK3R		1600	E	6.2	1.0
C2-D	HPAH	Fluoranthene	D0766-04BDL	SBLK3R	DL	1600	D	37	6.0
C2-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-04B	SBLK3R		240		6.2	1.0
C2-D	HPAH	Indeno(1,2,3-cd)pyrene	D0766-04BDL	SBLK3R	DL	370	D	37	6.0
C2-D	HPAH	Pyrene	D0766-04B	SBLK3R		1300	E	6.2	1.0
C2-D	HPAH	Pyrene	D0766-04BDL	SBLK3R	DL	1700	D	37	6.0
R01-A	LPAH	Acenaphthene	D0767-09B	SBLK3Q		8.2	U	8.2	1.0
R01-A	LPAH	Acenaphthene	D0767-09BRE	SBLK3W	LR	8.2	U	8.2	1.0
R01-A	LPAH	Acenaphthylene	D0767-09B	SBLK3Q		17	B	8.2	1.0
R01-A	LPAH	Acenaphthylene	D0767-09BRE	SBLK3W	LR	32		8.2	1.0
R01-A	LPAH	Anthracene	D0767-09B	SBLK3Q		13	B	8.2	1.0
R01-A	LPAH	Anthracene	D0767-09BRE	SBLK3W	LR	25		8.2	1.0
R01-A	LPAH	Fluorene	D0767-09B	SBLK3Q		8.2	U	8.2	1.0
R01-A	LPAH	Fluorene	D0767-09BRE	SBLK3W	LR	8.5		8.2	1.0
R01-A	LPAH	Naphthalene	D0767-09B	SBLK3Q		8.2	U	8.2	1.0
R01-A	LPAH	Naphthalene	D0767-09BRE	SBLK3W	LR	8.2	U	8.2	1.0
R01-A	LPAH	Phenanthrene	D0767-09B	SBLK3Q		36	B	8.2	1.0
R01-A	LPAH	Phenanthrene	D0767-09BRE	SBLK3W	LR	60		8.2	1.0
R01-A	HPAH	Benzo(a)anthracene	D0767-09B	SBLK3Q		54	B	8.2	1.0
R01-A	HPAH	Benzo(a)anthracene	D0767-09BRE	SBLK3W	LR	87		8.2	1.0
R01-A	HPAH	Benzo(a)pyrene	D0767-09B	SBLK3Q		69	B	8.2	1.0
R01-A	HPAH	Benzo(a)pyrene	D0767-09BRE	SBLK3W	LR	130		8.2	1.0
R01-A	HPAH	Benzo(b)fluoranthene	D0767-09B	SBLK3Q		95	B	8.2	1.0
R01-A	HPAH	Benzo(b)fluoranthene	D0767-09BRE	SBLK3W	LR	170		8.2	1.0
R01-A	HPAH	Benzo(g,h,i)perylene	D0767-09B	SBLK3Q		50		8.2	1.0
R01-A	HPAH	Benzo(g,h,i)perylene	D0767-09BRE	SBLK3W	LR	100		8.2	1.0
R01-A	HPAH	Benzo(k)fluoranthene	D0767-09B	SBLK3Q		29	B	8.2	1.0
R01-A	HPAH	Benzo(k)fluoranthene	D0767-09BRE	SBLK3W	LR	66		8.2	1.0
R01-A	HPAH	Chrysene	D0767-09B	SBLK3Q		64	B	8.2	1.0
R01-A	HPAH	Chrysene	D0767-09BRE	SBLK3W	LR	110		8.2	1.0
R01-A	HPAH	Dibenzo(a,h)anthracene	D0767-09B	SBLK3Q		12		8.2	1.0
R01-A	HPAH	Dibenzo(a,h)anthracene	D0767-09BRE	SBLK3W	LR	25		8.2	1.0
R01-A	HPAH	Fluoranthene	D0767-09B	SBLK3Q		92	B	8.2	1.0
R01-A	HPAH	Fluoranthene	D0767-09BRE	SBLK3W	LR	160		8.2	1.0
R01-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-09B	SBLK3Q		42		8.2	1.0
R01-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-09BRE	SBLK3W	LR	87		8.2	1.0
R01-A	HPAH	Pyrene	D0767-09B	SBLK3Q		100		8.2	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R01-A	HPAH	Pyrene	D0767-09BRE	SBLK3W	LR	150		8.2	1.0
R01-B	LPAH	Acenaphthene	D0767-10B	SBLK3Q		8	U	8	1.0
R01-B	LPAH	Acenaphthene	D0767-10BRE	SBLK3W	LR	8	U	8	1.0
R01-B	LPAH	Acenaphthylene	D0767-10B	SBLK3Q		11	B	8	1.0
R01-B	LPAH	Acenaphthylene	D0767-10BRE	SBLK3W	LR	32		8	1.0
R01-B	LPAH	Anthracene	D0767-10B	SBLK3Q		9.4	B	8	1.0
R01-B	LPAH	Anthracene	D0767-10BRE	SBLK3W	LR	36		8	1.0
R01-B	LPAH	Fluorene	D0767-10B	SBLK3Q		8	U	8	1.0
R01-B	LPAH	Fluorene	D0767-10BRE	SBLK3W	LR	13		8	1.0
R01-B	LPAH	Naphthalene	D0767-10B	SBLK3Q		8	U	8	1.0
R01-B	LPAH	Naphthalene	D0767-10BRE	SBLK3W	LR	8	U	8	1.0
R01-B	LPAH	Phenanthrene	D0767-10B	SBLK3Q		26	B	8	1.0
R01-B	LPAH	Phenanthrene	D0767-10BRE	SBLK3W	LR	100		8	1.0
R01-B	HPAH	Benzo(a)anthracene	D0767-10B	SBLK3Q		35	B	8	1.0
R01-B	HPAH	Benzo(a)anthracene	D0767-10BRE	SBLK3W	LR	110		8	1.0
R01-B	HPAH	Benzo(a)pyrene	D0767-10B	SBLK3Q		45	B	8	1.0
R01-B	HPAH	Benzo(a)pyrene	D0767-10BRE	SBLK3W	LR	140		8	1.0
R01-B	HPAH	Benzo(b)fluoranthene	D0767-10B	SBLK3Q		58	B	8	1.0
R01-B	HPAH	Benzo(b)fluoranthene	D0767-10BRE	SBLK3W	LR	180		8	1.0
R01-B	HPAH	Benzo(g,h,i)perylene	D0767-10B	SBLK3Q		32		8	1.0
R01-B	HPAH	Benzo(g,h,i)perylene	D0767-10BRE	SBLK3W	LR	110		8	1.0
R01-B	HPAH	Benzo(k)fluoranthene	D0767-10B	SBLK3Q		24	B	8	1.0
R01-B	HPAH	Benzo(k)fluoranthene	D0767-10BRE	SBLK3W	LR	74		8	1.0
R01-B	HPAH	Chrysene	D0767-10B	SBLK3Q		42	B	8	1.0
R01-B	HPAH	Chrysene	D0767-10BRE	SBLK3W	LR	130		8	1.0
R01-B	HPAH	Dibenzo(a,h)anthracene	D0767-10B	SBLK3Q		8	U	8	1.0
R01-B	HPAH	Dibenzo(a,h)anthracene	D0767-10BRE	SBLK3W	LR	26		8	1.0
R01-B	HPAH	Fluoranthene	D0767-10B	SBLK3Q		66	B	8	1.0
R01-B	HPAH	Fluoranthene	D0767-10BRE	SBLK3W	LR	210		8	1.0
R01-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-10B	SBLK3Q		27		8	1.0
R01-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-10BRE	SBLK3W	LR	93		8	1.0
R01-B	HPAH	Pyrene	D0767-10B	SBLK3Q		74		8	1.0
R01-B	HPAH	Pyrene	D0767-10BRE	SBLK3W	LR	200		8	1.0
R01-C	LPAH	Acenaphthene	D0767-11B	SBLK3Q		7.8	U	7.8	1.0
R01-C	LPAH	Acenaphthene	D0767-11BRE	SBLK3W	LR	7.8	U	7.8	1.0
R01-C	LPAH	Acenaphthylene	D0767-11B	SBLK3Q		8.1	B	7.8	1.0
R01-C	LPAH	Acenaphthylene	D0767-11BRE	SBLK3W	LR	33		7.8	1.0
R01-C	LPAH	Anthracene	D0767-11B	SBLK3Q		7.8	U	7.8	1.0
R01-C	LPAH	Anthracene	D0767-11BRE	SBLK3W	LR	26		7.8	1.0
R01-C	LPAH	Fluorene	D0767-11B	SBLK3Q		7.8	U	7.8	1.0
R01-C	LPAH	Fluorene	D0767-11BRE	SBLK3W	LR	7.8	U	7.8	1.0
R01-C	LPAH	Naphthalene	D0767-11B	SBLK3Q		7.8	U	7.8	1.0
R01-C	LPAH	Naphthalene	D0767-11BRE	SBLK3W	LR	7.8	U	7.8	1.0
R01-C	LPAH	Phenanthrene	D0767-11B	SBLK3Q		21	B	7.8	1.0
R01-C	LPAH	Phenanthrene	D0767-11BRE	SBLK3W	LR	59		7.8	1.0
R01-C	HPAH	Benzo(a)anthracene	D0767-11B	SBLK3Q		28	B	7.8	1.0
R01-C	HPAH	Benzo(a)anthracene	D0767-11BRE	SBLK3W	LR	90		7.8	1.0
R01-C	HPAH	Benzo(a)pyrene	D0767-11B	SBLK3Q		36	B	7.8	1.0
R01-C	HPAH	Benzo(a)pyrene	D0767-11BRE	SBLK3W	LR	130		7.8	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R01-C	HPAH	Benzo(b)fluoranthene	D0767-11B	SBLK3Q		46	B	7.8	1.0
R01-C	HPAH	Benzo(b)fluoranthene	D0767-11BRE	SBLK3W	LR	160		7.8	1.0
R01-C	HPAH	Benzo(g,h,i)perylene	D0767-11B	SBLK3Q		26		7.8	1.0
R01-C	HPAH	Benzo(g,h,i)perylene	D0767-11BRE	SBLK3W	LR	100		7.8	1.0
R01-C	HPAH	Benzo(k)fluoranthene	D0767-11B	SBLK3Q		20	B	7.8	1.0
R01-C	HPAH	Benzo(k)fluoranthene	D0767-11BRE	SBLK3W	LR	64		7.8	1.0
R01-C	HPAH	Chrysene	D0767-11B	SBLK3Q		32	B	7.8	1.0
R01-C	HPAH	Chrysene	D0767-11BRE	SBLK3W	LR	110		7.8	1.0
R01-C	HPAH	Dibenzo(a,h)anthracene	D0767-11B	SBLK3Q		7.8	U	7.8	1.0
R01-C	HPAH	Dibenzo(a,h)anthracene	D0767-11BRE	SBLK3W	LR	25		7.8	1.0
R01-C	HPAH	Fluoranthene	D0767-11B	SBLK3Q		51	B	7.8	1.0
R01-C	HPAH	Fluoranthene	D0767-11BRE	SBLK3W	LR	160		7.8	1.0
R01-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-11B	SBLK3Q		22		7.8	1.0
R01-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-11BRE	SBLK3W	LR	85		7.8	1.0
R01-C	HPAH	Pyrene	D0767-11B	SBLK3Q		60		7.8	1.0
R01-C	HPAH	Pyrene	D0767-11BRE	SBLK3W	LR	170		7.8	1.0
R01-D	LPAH	Acenaphthene	D0767-12B	SBLK3Q		7.2	U	7.2	1.0
R01-D	LPAH	Acenaphthene	D0767-12BRE	SBLK3W	LR	7.2	U	7.2	1.0
R01-D	LPAH	Acenaphthylene	D0767-12B	SBLK3Q		16	B	7.2	1.0
R01-D	LPAH	Acenaphthylene	D0767-12BRE	SBLK3W	LR	34		7.2	1.0
R01-D	LPAH	Anthracene	D0767-12B	SBLK3Q		12	B	7.2	1.0
R01-D	LPAH	Anthracene	D0767-12BRE	SBLK3W	LR	30		7.2	1.0
R01-D	LPAH	Fluorene	D0767-12B	SBLK3Q		7.2	U	7.2	1.0
R01-D	LPAH	Fluorene	D0767-12BRE	SBLK3W	LR	9		7.2	1.0
R01-D	LPAH	Naphthalene	D0767-12B	SBLK3Q		7.2	U	7.2	1.0
R01-D	LPAH	Naphthalene	D0767-12BRE	SBLK3W	LR	7.2	U	7.2	1.0
R01-D	LPAH	Phenanthrene	D0767-12B	SBLK3Q		35	B	7.2	1.0
R01-D	LPAH	Phenanthrene	D0767-12BRE	SBLK3W	LR	73		7.2	1.0
R01-D	HPAH	Benzo(a)anthracene	D0767-12B	SBLK3Q		47	B	7.2	1.0
R01-D	HPAH	Benzo(a)anthracene	D0767-12BRE	SBLK3W	LR	100		7.2	1.0
R01-D	HPAH	Benzo(a)pyrene	D0767-12B	SBLK3Q		66	B	7.2	1.0
R01-D	HPAH	Benzo(a)pyrene	D0767-12BRE	SBLK3W	LR	140		7.2	1.0
R01-D	HPAH	Benzo(b)fluoranthene	D0767-12B	SBLK3Q		81	B	7.2	1.0
R01-D	HPAH	Benzo(b)fluoranthene	D0767-12BRE	SBLK3W	LR	190		7.2	1.0
R01-D	HPAH	Benzo(g,h,i)perylene	D0767-12B	SBLK3Q		46		7.2	1.0
R01-D	HPAH	Benzo(g,h,i)perylene	D0767-12BRE	SBLK3W	LR	110		7.2	1.0
R01-D	HPAH	Benzo(k)fluoranthene	D0767-12B	SBLK3Q		38	B	7.2	1.0
R01-D	HPAH	Benzo(k)fluoranthene	D0767-12BRE	SBLK3W	LR	56		7.2	1.0
R01-D	HPAH	Chrysene	D0767-12B	SBLK3Q		59	B	7.2	1.0
R01-D	HPAH	Chrysene	D0767-12BRE	SBLK3W	LR	120		7.2	1.0
R01-D	HPAH	Dibenzo(a,h)anthracene	D0767-12B	SBLK3Q		10		7.2	1.0
R01-D	HPAH	Dibenzo(a,h)anthracene	D0767-12BRE	SBLK3W	LR	26		7.2	1.0
R01-D	HPAH	Fluoranthene	D0767-12B	SBLK3Q		92	B	7.2	1.0
R01-D	HPAH	Fluoranthene	D0767-12BRE	SBLK3W	LR	190		7.2	1.0
R01-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-12B	SBLK3Q		39		7.2	1.0
R01-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-12BRE	SBLK3W	LR	90		7.2	1.0
R01-D	HPAH	Pyrene	D0767-12B	SBLK3Q		95		7.2	1.0
R01-D	HPAH	Pyrene	D0767-12BRE	SBLK3W	LR	190		7.2	1.0
R02-A	LPAH	Acenaphthene	D0767-05B	SBLK3Q		8.2	U	8.2	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R02-A	LPAH	Acenaphthene	D0767-05BRE	SBLK3W	LR	8.2	U	8.2	1.0
R02-A	LPAH	Acenaphthylene	D0767-05B	SBLK3Q		10	B	8.2	1.0
R02-A	LPAH	Acenaphthylene	D0767-05BRE	SBLK3W	LR	24		8.2	1.0
R02-A	LPAH	Anthracene	D0767-05B	SBLK3Q		10	B	8.2	1.0
R02-A	LPAH	Anthracene	D0767-05BRE	SBLK3W	LR	18		8.2	1.0
R02-A	LPAH	Fluorene	D0767-05B	SBLK3Q		8.2	U	8.2	1.0
R02-A	LPAH	Fluorene	D0767-05BRE	SBLK3W	LR	8.2	U	8.2	1.0
R02-A	LPAH	Naphthalene	D0767-05B	SBLK3Q		8.2	U	8.2	1.0
R02-A	LPAH	Naphthalene	D0767-05BRE	SBLK3W	LR	8.2	U	8.2	1.0
R02-A	LPAH	Phenanthrene	D0767-05B	SBLK3Q		31	B	8.2	1.0
R02-A	LPAH	Phenanthrene	D0767-05BRE	SBLK3W	LR	41		8.2	1.0
R02-A	HPAH	Benzo(a)anthracene	D0767-05B	SBLK3Q		40	B	8.2	1.0
R02-A	HPAH	Benzo(a)anthracene	D0767-05BRE	SBLK3W	LR	71		8.2	1.0
R02-A	HPAH	Benzo(a)pyrene	D0767-05B	SBLK3Q		52	B	8.2	1.0
R02-A	HPAH	Benzo(a)pyrene	D0767-05BRE	SBLK3W	LR	100		8.2	1.0
R02-A	HPAH	Benzo(b)fluoranthene	D0767-05B	SBLK3Q		69	B	8.2	1.0
R02-A	HPAH	Benzo(b)fluoranthene	D0767-05BRE	SBLK3W	LR	120		8.2	1.0
R02-A	HPAH	Benzo(g,h,i)perylene	D0767-05B	SBLK3Q		35		8.2	1.0
R02-A	HPAH	Benzo(g,h,i)perylene	D0767-05BRE	SBLK3W	LR	76		8.2	1.0
R02-A	HPAH	Benzo(k)fluoranthene	D0767-05B	SBLK3Q		23	B	8.2	1.0
R02-A	HPAH	Benzo(k)fluoranthene	D0767-05BRE	SBLK3W	LR	51		8.2	1.0
R02-A	HPAH	Chrysene	D0767-05B	SBLK3Q		48	B	8.2	1.0
R02-A	HPAH	Chrysene	D0767-05BRE	SBLK3W	LR	86		8.2	1.0
R02-A	HPAH	Dibenzo(a,h)anthracene	D0767-05B	SBLK3Q		8.2	U	8.2	1.0
R02-A	HPAH	Dibenzo(a,h)anthracene	D0767-05BRE	SBLK3W	LR	19		8.2	1.0
R02-A	HPAH	Fluoranthene	D0767-05B	SBLK3Q		74	B	8.2	1.0
R02-A	HPAH	Fluoranthene	D0767-05BRE	SBLK3W	LR	120		8.2	1.0
R02-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-05B	SBLK3Q		30		8.2	1.0
R02-A	HPAH	Indeno(1,2,3-cd)pyrene	D0767-05BRE	SBLK3W	LR	62		8.2	1.0
R02-A	HPAH	Pyrene	D0767-05B	SBLK3Q		83		8.2	1.0
R02-A	HPAH	Pyrene	D0767-05BRE	SBLK3W	LR	120		8.2	1.0
R02-B	LPAH	Acenaphthene	D0767-06B	SBLK3Q		7.5	U	7.5	1.0
R02-B	LPAH	Acenaphthene	D0767-06BRE	SBLK3W	LR	7.5	U	7.5	1.0
R02-B	LPAH	Acenaphthylene	D0767-06B	SBLK3Q		12	B	7.5	1.0
R02-B	LPAH	Acenaphthylene	D0767-06BRE	SBLK3W	LR	25		7.5	1.0
R02-B	LPAH	Anthracene	D0767-06B	SBLK3Q		10	B	7.5	1.0
R02-B	LPAH	Anthracene	D0767-06BRE	SBLK3W	LR	21		7.5	1.0
R02-B	LPAH	Fluorene	D0767-06B	SBLK3Q		7.5	U	7.5	1.0
R02-B	LPAH	Fluorene	D0767-06BRE	SBLK3W	LR	7.5	U	7.5	1.0
R02-B	LPAH	Naphthalene	D0767-06B	SBLK3Q		7.5	U	7.5	1.0
R02-B	LPAH	Naphthalene	D0767-06BRE	SBLK3W	LR	7.5	U	7.5	1.0
R02-B	LPAH	Phenanthrene	D0767-06B	SBLK3Q		30	B	7.5	1.0
R02-B	LPAH	Phenanthrene	D0767-06BRE	SBLK3W	LR	53		7.5	1.0
R02-B	HPAH	Benzo(a)anthracene	D0767-06B	SBLK3Q		41	B	7.5	1.0
R02-B	HPAH	Benzo(a)anthracene	D0767-06BRE	SBLK3W	LR	80		7.5	1.0
R02-B	HPAH	Benzo(a)pyrene	D0767-06B	SBLK3Q		55	B	7.5	1.0
R02-B	HPAH	Benzo(a)pyrene	D0767-06BRE	SBLK3W	LR	110		7.5	1.0
R02-B	HPAH	Benzo(b)fluoranthene	D0767-06B	SBLK3Q		75	B	7.5	1.0
R02-B	HPAH	Benzo(b)fluoranthene	D0767-06BRE	SBLK3W	LR	140		7.5	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R02-B	HPAH	Benzo(g,h,i)perylene	D0767-06B	SBLK3Q		38		7.5	1.0
R02-B	HPAH	Benzo(g,h,i)perylene	D0767-06BRE	SBLK3W	LR	84		7.5	1.0
R02-B	HPAH	Benzo(k)fluoranthene	D0767-06B	SBLK3Q		24	B	7.5	1.0
R02-B	HPAH	Benzo(k)fluoranthene	D0767-06BRE	SBLK3W	LR	53		7.5	1.0
R02-B	HPAH	Chrysene	D0767-06B	SBLK3Q		49	B	7.5	1.0
R02-B	HPAH	Chrysene	D0767-06BRE	SBLK3W	LR	97		7.5	1.0
R02-B	HPAH	Dibenzo(a,h)anthracene	D0767-06B	SBLK3Q		8.4		7.5	1.0
R02-B	HPAH	Dibenzo(a,h)anthracene	D0767-06BRE	SBLK3W	LR	20		7.5	1.0
R02-B	HPAH	Fluoranthene	D0767-06B	SBLK3Q		77	B	7.5	1.0
R02-B	HPAH	Fluoranthene	D0767-06BRE	SBLK3W	LR	140		7.5	1.0
R02-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-06B	SBLK3Q		33		7.5	1.0
R02-B	HPAH	Indeno(1,2,3-cd)pyrene	D0767-06BRE	SBLK3W	LR	71		7.5	1.0
R02-B	HPAH	Pyrene	D0767-06B	SBLK3Q		88		7.5	1.0
R02-B	HPAH	Pyrene	D0767-06BRE	SBLK3W	LR	150		7.5	1.0
R02-C	LPAH	Acenaphthene	D0767-07B	SBLK3Q		7.3	U	7.3	1.0
R02-C	LPAH	Acenaphthene	D0767-07BRE	SBLK3W	LR	7.3	U	7.3	1.0
R02-C	LPAH	Acenaphthylene	D0767-07B	SBLK3Q		15	B	7.3	1.0
R02-C	LPAH	Acenaphthylene	D0767-07BRE	SBLK3W	LR	39		7.3	1.0
R02-C	LPAH	Anthracene	D0767-07B	SBLK3Q		14	B	7.3	1.0
R02-C	LPAH	Anthracene	D0767-07BRE	SBLK3W	LR	26		7.3	1.0
R02-C	LPAH	Fluorene	D0767-07B	SBLK3Q		7.3	U	7.3	1.0
R02-C	LPAH	Fluorene	D0767-07BRE	SBLK3W	LR	7.3	U	7.3	1.0
R02-C	LPAH	Naphthalene	D0767-07B	SBLK3Q		7.3	U	7.3	1.0
R02-C	LPAH	Naphthalene	D0767-07BRE	SBLK3W	LR	7.3	U	7.3	1.0
R02-C	LPAH	Phenanthrene	D0767-07B	SBLK3Q		40	B	7.3	1.0
R02-C	LPAH	Phenanthrene	D0767-07BRE	SBLK3W	LR	53		7.3	1.0
R02-C	HPAH	Benzo(a)anthracene	D0767-07B	SBLK3Q		58	B	7.3	1.0
R02-C	HPAH	Benzo(a)anthracene	D0767-07BRE	SBLK3W	LR	97		7.3	1.0
R02-C	HPAH	Benzo(a)pyrene	D0767-07B	SBLK3Q		73	B	7.3	1.0
R02-C	HPAH	Benzo(a)pyrene	D0767-07BRE	SBLK3W	LR	140		7.3	1.0
R02-C	HPAH	Benzo(b)fluoranthene	D0767-07B	SBLK3Q		91	B	7.3	1.0
R02-C	HPAH	Benzo(b)fluoranthene	D0767-07BRE	SBLK3W	LR	180		7.3	1.0
R02-C	HPAH	Benzo(g,h,i)perylene	D0767-07B	SBLK3Q		51		7.3	1.0
R02-C	HPAH	Benzo(g,h,i)perylene	D0767-07BRE	SBLK3W	LR	100		7.3	1.0
R02-C	HPAH	Benzo(k)fluoranthene	D0767-07B	SBLK3Q		39	B	7.3	1.0
R02-C	HPAH	Benzo(k)fluoranthene	D0767-07BRE	SBLK3W	LR	68		7.3	1.0
R02-C	HPAH	Chrysene	D0767-07B	SBLK3Q		65	B	7.3	1.0
R02-C	HPAH	Chrysene	D0767-07BRE	SBLK3W	LR	120		7.3	1.0
R02-C	HPAH	Dibenzo(a,h)anthracene	D0767-07B	SBLK3Q		12		7.3	1.0
R02-C	HPAH	Dibenzo(a,h)anthracene	D0767-07BRE	SBLK3W	LR	26		7.3	1.0
R02-C	HPAH	Fluoranthene	D0767-07B	SBLK3Q		98	B	7.3	1.0
R02-C	HPAH	Fluoranthene	D0767-07BRE	SBLK3W	LR	170		7.3	1.0
R02-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-07B	SBLK3Q		44		7.3	1.0
R02-C	HPAH	Indeno(1,2,3-cd)pyrene	D0767-07BRE	SBLK3W	LR	88		7.3	1.0
R02-C	HPAH	Pyrene	D0767-07B	SBLK3Q		120		7.3	1.0
R02-C	HPAH	Pyrene	D0767-07BRE	SBLK3W	LR	170		7.3	1.0
R02-D	LPAH	Acenaphthene	D0767-08B	SBLK3Q		6.7	U	6.7	1.0
R02-D	LPAH	Acenaphthene	D0767-08BRE	SBLK3W	LR	6.7	U	6.7	1.0
R02-D	LPAH	Acenaphthylene	D0767-08B	SBLK3Q		16	B	6.7	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R02-D	LPAH	Acenaphthylene	D0767-08BRE	SBLK3W	LR	45		6.7	1.0
R02-D	LPAH	Anthracene	D0767-08B	SBLK3Q		13	B	6.7	1.0
R02-D	LPAH	Anthracene	D0767-08BRE	SBLK3W	LR	32		6.7	1.0
R02-D	LPAH	Fluorene	D0767-08B	SBLK3Q		6.7	U	6.7	1.0
R02-D	LPAH	Fluorene	D0767-08BRE	SBLK3W	LR	9.1		6.7	1.0
R02-D	LPAH	Naphthalene	D0767-08B	SBLK3Q		6.7	U	6.7	1.0
R02-D	LPAH	Naphthalene	D0767-08BRE	SBLK3W	LR	6.7	U	6.7	1.0
R02-D	LPAH	Phenanthrene	D0767-08B	SBLK3Q		38	B	6.7	1.0
R02-D	LPAH	Phenanthrene	D0767-08BRE	SBLK3W	LR	74		6.7	1.0
R02-D	HPAH	Benzo(a)anthracene	D0767-08B	SBLK3Q		51	B	6.7	1.0
R02-D	HPAH	Benzo(a)anthracene	D0767-08BRE	SBLK3W	LR	110		6.7	1.0
R02-D	HPAH	Benzo(a)pyrene	D0767-08B	SBLK3Q		67	B	6.7	1.0
R02-D	HPAH	Benzo(a)pyrene	D0767-08BRE	SBLK3W	LR	170		6.7	1.0
R02-D	HPAH	Benzo(b)fluoranthene	D0767-08B	SBLK3Q		91	B	6.7	1.0
R02-D	HPAH	Benzo(b)fluoranthene	D0767-08BRE	SBLK3W	LR	210		6.7	1.0
R02-D	HPAH	Benzo(g,h,i)perylene	D0767-08B	SBLK3Q		47		6.7	1.0
R02-D	HPAH	Benzo(g,h,i)perylene	D0767-08BRE	SBLK3W	LR	130		6.7	1.0
R02-D	HPAH	Benzo(k)fluoranthene	D0767-08B	SBLK3Q		30	B	6.7	1.0
R02-D	HPAH	Benzo(k)fluoranthene	D0767-08BRE	SBLK3W	LR	84		6.7	1.0
R02-D	HPAH	Chrysene	D0767-08B	SBLK3Q		61	B	6.7	1.0
R02-D	HPAH	Chrysene	D0767-08BRE	SBLK3W	LR	140		6.7	1.0
R02-D	HPAH	Dibenzo(a,h)anthracene	D0767-08B	SBLK3Q		11		6.7	1.0
R02-D	HPAH	Dibenzo(a,h)anthracene	D0767-08BRE	SBLK3W	LR	32		6.7	1.0
R02-D	HPAH	Fluoranthene	D0767-08B	SBLK3Q		95	B	6.7	1.0
R02-D	HPAH	Fluoranthene	D0767-08BRE	SBLK3W	LR	210		6.7	1.0
R02-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-08B	SBLK3Q		40		6.7	1.0
R02-D	HPAH	Indeno(1,2,3-cd)pyrene	D0767-08BRE	SBLK3W	LR	110		6.7	1.0
R02-D	HPAH	Pyrene	D0767-08B	SBLK3Q		120		6.7	1.0
R02-D	HPAH	Pyrene	D0767-08BRE	SBLK3W	LR	210		6.7	1.0
RINSATE	LPAH	Acenaphthene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	LPAH	Acenaphthylene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	LPAH	Anthracene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	LPAH	Fluorene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	LPAH	Naphthalene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	LPAH	Phenanthrene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Benzo(a)anthracene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Benzo(a)pyrene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Benzo(b)fluoranthene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Benzo(g,h,i)perylene	D0767-17A	SBLK4M		0.1	U	0.1	1.0

Qualifiers

B: Value detected in method blank (at <10x?).

D: Dilution

E: Value above quantitation range.

Appendix Table D-3. PAH Results (ug/kg dry weight)

Station	Group	Chemical	LabID	BatchID	Rep	Result	Qual	RL	Dilution
RINSATE	HPAH	Benzo(k)fluoranthene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Chrysene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Dibenzo(a,h)anthracene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Fluoranthene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Indeno(1,2,3-cd)pyrene	D0767-17A	SBLK4M		0.1	U	0.1	1.0
RINSATE	HPAH	Pyrene	D0767-17A	SBLK4M		0.1	U	0.1	1.0

Qualifiers
B: Value detected in method blank (at <10x?).
D: Dilution
E: Value above quantitation range.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-A	PCB008 (2,4-diCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB018 (2,2,5-triCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB028 (2,4,4-triCB)	D0767-13A	PBLK1C		0.0043		0.0027	1.0
B03-A	PCB044 (2,2,3,5-tetraCB)	D0767-13A	PBLK1C		0.0038		0.0027	1.0
B03-A	PCB049 (2,2,4,5-tetraCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB052 (2,2,5,5-tetraCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB066 (2,3,4,4-tetraCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB087 (2,2,3,4,5-pentaCB)	D0767-13A	PBLK1C		0.0053		0.0027	1.0
B03-A	PCB101 (2,2,4,5,5-pentaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB105 (2,3,3,4,4-pentaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB118 (2,3,4,4,5-pentaCB)	D0767-13A	PBLK1C		0.0039		0.0027	1.0
B03-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-13A	PBLK1C		0.007		0.0027	1.0
B03-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-13A	PBLK1C		0.0056		0.0027	1.0
B03-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-13A	PBLK1C		0.0027	U	0.0027	1.0
B03-A	PCB209 (DecaCB)	D0767-13A	PBLK1C		0.0043		0.0027	1.0
B03-B	PCB008 (2,4-diCB)	D0767-14A	PBLK1C		0.0041		0.0024	1.0
B03-B	PCB018 (2,2,5-triCB)	D0767-14A	PBLK1C		0.0083	P	0.0024	1.0
B03-B	PCB028 (2,4,4-triCB)	D0767-14A	PBLK1C		0.018		0.0024	1.0
B03-B	PCB044 (2,2,3,5-tetraCB)	D0767-14A	PBLK1C		0.0069	P	0.0024	1.0
B03-B	PCB049 (2,2,4,5-tetraCB)	D0767-14A	PBLK1C		0.0024	U	0.0024	1.0
B03-B	PCB052 (2,2,5,5-tetraCB)	D0767-14A	PBLK1C		0.0043	P	0.0024	1.0
B03-B	PCB066 (2,3,4,4-tetraCB)	D0767-14A	PBLK1C		0.0091	P	0.0024	1.0
B03-B	PCB087 (2,2,3,4,5-pentaCB)	D0767-14A	PBLK1C		0.0065	P	0.0024	1.0
B03-B	PCB101 (2,2,4,5,5-pentaCB)	D0767-14A	PBLK1C		0.017	P	0.0024	1.0
B03-B	PCB105 (2,3,3,4,4-pentaCB)	D0767-14A	PBLK1C		0.0079	P	0.0024	1.0
B03-B	PCB118 (2,3,4,4,5-pentaCB)	D0767-14A	PBLK1C		0.017		0.0024	1.0
B03-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-14A	PBLK1C		0.0044	P	0.0024	1.0
B03-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-14A	PBLK1C		0.026		0.0024	1.0
B03-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-14A	PBLK1C		0.017		0.0024	1.0
B03-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-14A	PBLK1C		0.0031	P	0.0024	1.0
B03-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-14A	PBLK1C		0.0094		0.0024	1.0
B03-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-14A	PBLK1C		0.0024	U	0.0024	1.0
B03-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-14A	PBLK1C		0.003		0.0024	1.0
B03-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-14A	PBLK1C		0.0042	P	0.0024	1.0
B03-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-14A	PBLK1C		0.0024	U	0.0024	1.0
B03-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-14A	PBLK1C		0.0035		0.0024	1.0
B03-B	PCB209 (DecaCB)	D0767-14A	PBLK1C		0.0024	U	0.0024	1.0
B03-C	PCB008 (2,4-diCB)	D0767-15A	PBLK1C		0.0021	U	0.0021	1.0
B03-C	PCB018 (2,2,5-triCB)	D0767-15A	PBLK1C		0.034	P	0.0021	1.0
B03-C	PCB028 (2,4,4-triCB)	D0767-15A	PBLK1C		0.058		0.0021	1.0
B03-C	PCB044 (2,2,3,5-tetraCB)	D0767-15A	PBLK1C		0.034	P	0.0021	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-C	PCB049 (2,2,4,5-tetraCB)	D0767-15A	PBLK1C		0.036		0.0021	1.0
B03-C	PCB052 (2,2,5,5-tetraCB)	D0767-15A	PBLK1C		0.049		0.0021	1.0
B03-C	PCB066 (2,3,4,4-tetraCB)	D0767-15A	PBLK1C		0.041	P	0.0021	1.0
B03-C	PCB087 (2,2,3,4,5-pentaCB)	D0767-15A	PBLK1C		0.051	P	0.0021	1.0
B03-C	PCB101 (2,2,4,5,5-pentaCB)	D0767-15A	PBLK1C		0.09		0.0021	1.0
B03-C	PCB105 (2,3,3,4,4-pentaCB)	D0767-15A	PBLK1C		0.031	P	0.0021	1.0
B03-C	PCB118 (2,3,4,4,5-pentaCB)	D0767-15A	PBLK1C		0.063		0.0021	1.0
B03-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-15A	PBLK1C		0.016	P	0.0021	1.0
B03-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-15A	PBLK1C		0.088		0.0021	1.0
B03-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-15A	PBLK1C		0.062		0.0021	1.0
B03-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-15A	PBLK1C		0.012	P	0.0021	1.0
B03-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-15A	PBLK1C		0.046		0.0021	1.0
B03-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-15A	PBLK1C		0.0021	U	0.0021	1.0
B03-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-15A	PBLK1C		0.015		0.0021	1.0
B03-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-15A	PBLK1C		0.017	P	0.0021	1.0
B03-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-15A	PBLK1C		0.0063	P	0.0021	1.0
B03-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-15A	PBLK1C		0.027		0.0021	1.0
B03-C	PCB209 (DecaCB)	D0767-15A	PBLK1C		0.0042	P	0.0021	1.0
B03-D	PCB008 (2,4-diCB)	D0767-16A	PBLK1C		0.019	P	0.002	1.0
B03-D	PCB008 (2,4-diCB)	D0767-16ADL	PBLK1C	DL	0.023	D	0.0041	2.0
B03-D	PCB018 (2,2,5-triCB)	D0767-16A	PBLK1C		0.12		0.002	1.0
B03-D	PCB018 (2,2,5-triCB)	D0767-16ADL	PBLK1C	DL	0.1	PD	0.0041	2.0
B03-D	PCB028 (2,4,4-triCB)	D0767-16A	PBLK1C		0.12		0.002	1.0
B03-D	PCB028 (2,4,4-triCB)	D0767-16ADL	PBLK1C	DL	0.11	D	0.0041	2.0
B03-D	PCB044 (2,2,3,5-tetraCB)	D0767-16A	PBLK1C		0.072	P	0.002	1.0
B03-D	PCB044 (2,2,3,5-tetraCB)	D0767-16ADL	PBLK1C	DL	0.064	PD	0.0041	2.0
B03-D	PCB049 (2,2,4,5-tetraCB)	D0767-16A	PBLK1C		0.072		0.002	1.0
B03-D	PCB049 (2,2,4,5-tetraCB)	D0767-16ADL	PBLK1C	DL	0.067	D	0.0041	2.0
B03-D	PCB052 (2,2,5,5-tetraCB)	D0767-16A	PBLK1C		0.088	P	0.002	1.0
B03-D	PCB052 (2,2,5,5-tetraCB)	D0767-16ADL	PBLK1C	DL	0.081	D	0.0041	2.0
B03-D	PCB066 (2,3,4,4-tetraCB)	D0767-16A	PBLK1C		0.12		0.002	1.0
B03-D	PCB066 (2,3,4,4-tetraCB)	D0767-16ADL	PBLK1C	DL	0.097	D	0.0041	2.0
B03-D	PCB087 (2,2,3,4,5-pentaCB)	D0767-16A	PBLK1C		0.14	P	0.002	1.0
B03-D	PCB087 (2,2,3,4,5-pentaCB)	D0767-16ADL	PBLK1C	DL	0.12	PD	0.0041	2.0
B03-D	PCB101 (2,2,4,5,5-pentaCB)	D0767-16A	PBLK1C		0.2		0.002	1.0
B03-D	PCB101 (2,2,4,5,5-pentaCB)	D0767-16ADL	PBLK1C	DL	0.17	PD	0.0041	2.0
B03-D	PCB105 (2,3,3,4,4-pentaCB)	D0767-16A	PBLK1C		0.083	P	0.002	1.0
B03-D	PCB105 (2,3,3,4,4-pentaCB)	D0767-16ADL	PBLK1C	DL	0.073	PD	0.0041	2.0
B03-D	PCB118 (2,3,4,4,5-pentaCB)	D0767-16A	PBLK1C		0.15		0.002	1.0
B03-D	PCB118 (2,3,4,4,5-pentaCB)	D0767-16ADL	PBLK1C	DL	0.14	D	0.0041	2.0
B03-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-16A	PBLK1C		0.043		0.002	1.0
B03-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-16ADL	PBLK1C	DL	0.033	D	0.0041	2.0
B03-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-16A	PBLK1C		0.21	E	0.002	1.0
B03-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-16ADL	PBLK1C	DL	0.2	D	0.0041	2.0
B03-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-16A	PBLK1C		0.16		0.002	1.0
B03-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-16ADL	PBLK1C	DL	0.15	D	0.0041	2.0
B03-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-16A	PBLK1C		0.032		0.002	1.0
B03-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-16ADL	PBLK1C	DL	0.028	D	0.0041	2.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B03-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-16A	PBLK1C		0.052		0.002	1.0
B03-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-16ADL	PBLK1C	DL	0.048	D	0.0041	2.0
B03-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-16A	PBLK1C		0.002	U	0.002	1.0
B03-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-16ADL	PBLK1C	DL	0.0041	U	0.0041	2.0
B03-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-16A	PBLK1C		0.023		0.002	1.0
B03-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-16ADL	PBLK1C	DL	0.016	D	0.0041	2.0
B03-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-16A	PBLK1C		0.031	P	0.002	1.0
B03-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-16ADL	PBLK1C	DL	0.028	PD	0.0041	2.0
B03-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-16A	PBLK1C		0.0081		0.002	1.0
B03-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-16ADL	PBLK1C	DL	0.0062	D	0.0041	2.0
B03-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-16A	PBLK1C		0.018		0.002	1.0
B03-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-16ADL	PBLK1C	DL	0.016	D	0.0041	2.0
B03-D	PCB209 (DecaCB)	D0767-16A	PBLK1C		0.0079	P	0.002	1.0
B03-D	PCB209 (DecaCB)	D0767-16ADL	PBLK1C	DL	0.0078	PD	0.0041	2.0
B04-A	PCB008 (2,4-diCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB018 (2,2,5-triCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB028 (2,4,4-triCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB044 (2,2,3,5-tetraCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB049 (2,2,4,5-tetraCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB052 (2,2,5,5-tetraCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB066 (2,3,4,4-tetraCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB087 (2,2,3,4,5-pentaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB101 (2,2,4,5,5-pentaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB105 (2,3,3,4,4-pentaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB118 (2,3,4,4,5-pentaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-17A	PBLK1D		0.0047		0.0028	1.0
B04-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-17A	PBLK1D		0.0032		0.0028	1.0
B04-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-A	PCB209 (DecaCB)	D0766-17A	PBLK1D		0.0028	U	0.0028	1.0
B04-B	PCB008 (2,4-diCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB018 (2,2,5-triCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB028 (2,4,4-triCB)	D0766-18A	PBLK1D		0.0056		0.0024	1.0
B04-B	PCB044 (2,2,3,5-tetraCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB049 (2,2,4,5-tetraCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB052 (2,2,5,5-tetraCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB066 (2,3,4,4-tetraCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB087 (2,2,3,4,5-pentaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB101 (2,2,4,5,5-pentaCB)	D0766-18A	PBLK1D		0.0033	P	0.0024	1.0
B04-B	PCB105 (2,3,3,4,4-pentaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB118 (2,3,4,4,5-pentaCB)	D0766-18A	PBLK1D		0.0044		0.0024	1.0
B04-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B04-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-18A	PBLK1D		0.0074		0.0024	1.0
B04-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-18A	PBLK1D		0.0056		0.0024	1.0
B04-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-18A	PBLK1D		0.0024	U	0.0024	1.0
B04-B	PCB209 (DecaCB)	D0766-18A	PBLK1D		0.003		0.0024	1.0
B04-C	PCB008 (2,4-diCB)	D0766-19A	PBLK1F		0.0023	P	0.0019	1.0
B04-C	PCB018 (2,2,5-triCB)	D0766-19A	PBLK1F		0.016	P	0.0019	1.0
B04-C	PCB028 (2,4,4-triCB)	D0766-19A	PBLK1F		0.019		0.0019	1.0
B04-C	PCB044 (2,2,3,5-tetraCB)	D0766-19A	PBLK1F		0.011	P	0.0019	1.0
B04-C	PCB049 (2,2,4,5-tetraCB)	D0766-19A	PBLK1F		0.0019	U	0.0019	1.0
B04-C	PCB052 (2,2,5,5-tetraCB)	D0766-19A	PBLK1F		0.0095	P	0.0019	1.0
B04-C	PCB066 (2,3,4,4-tetraCB)	D0766-19A	PBLK1F		0.0067	P	0.0019	1.0
B04-C	PCB087 (2,2,3,4,5-pentaCB)	D0766-19A	PBLK1F		0.015	P	0.0019	1.0
B04-C	PCB101 (2,2,4,5,5-pentaCB)	D0766-19A	PBLK1F		0.039		0.0019	1.0
B04-C	PCB105 (2,3,3,4,4-pentaCB)	D0766-19A	PBLK1F		0.013	P	0.0019	1.0
B04-C	PCB118 (2,3,4,4,5-pentaCB)	D0766-19A	PBLK1F		0.026		0.0019	1.0
B04-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-19A	PBLK1F		0.0068		0.0019	1.0
B04-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-19A	PBLK1F		0.039		0.0019	1.0
B04-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-19A	PBLK1F		0.028		0.0019	1.0
B04-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-19A	PBLK1F		0.0052		0.0019	1.0
B04-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-19A	PBLK1F		0.012		0.0019	1.0
B04-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-19A	PBLK1F		0.0019	U	0.0019	1.0
B04-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-19A	PBLK1F		0.0037		0.0019	1.0
B04-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-19A	PBLK1F		0.006	P	0.0019	1.0
B04-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-19A	PBLK1F		0.0022		0.0019	1.0
B04-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-19A	PBLK1F		0.0044		0.0019	1.0
B04-C	PCB209 (DecaCB)	D0766-19A	PBLK1F		0.0025	P	0.0019	1.0
B04-D	PCB008 (2,4-diCB)	D0766-20A	PBLK1E		0.018		0.0018	1.0
B04-D	PCB018 (2,2,5-triCB)	D0766-20A	PBLK1E		0.061		0.0018	1.0
B04-D	PCB028 (2,4,4-triCB)	D0766-20A	PBLK1E		0.056		0.0018	1.0
B04-D	PCB044 (2,2,3,5-tetraCB)	D0766-20A	PBLK1E		0.033	P	0.0018	1.0
B04-D	PCB049 (2,2,4,5-tetraCB)	D0766-20A	PBLK1E		0.034		0.0018	1.0
B04-D	PCB052 (2,2,5,5-tetraCB)	D0766-20A	PBLK1E		0.041		0.0018	1.0
B04-D	PCB066 (2,3,4,4-tetraCB)	D0766-20A	PBLK1E		0.048		0.0018	1.0
B04-D	PCB087 (2,2,3,4,5-pentaCB)	D0766-20A	PBLK1E		0.052	P	0.0018	1.0
B04-D	PCB101 (2,2,4,5,5-pentaCB)	D0766-20A	PBLK1E		0.088		0.0018	1.0
B04-D	PCB105 (2,3,3,4,4-pentaCB)	D0766-20A	PBLK1E		0.033		0.0018	1.0
B04-D	PCB118 (2,3,4,4,5-pentaCB)	D0766-20A	PBLK1E		0.058		0.0018	1.0
B04-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-20A	PBLK1E		0.016		0.0018	1.0
B04-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-20A	PBLK1E		0.089		0.0018	1.0
B04-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-20A	PBLK1E		0.067		0.0018	1.0
B04-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-20A	PBLK1E		0.013		0.0018	1.0
B04-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-20A	PBLK1E		0.024		0.0018	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B04-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-20A	PBLK1E		0.0018	U	0.0018	1.0
B04-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-20A	PBLK1E		0.0076		0.0018	1.0
B04-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-20A	PBLK1E		0.013	P	0.0018	1.0
B04-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-20A	PBLK1E		0.0042		0.0018	1.0
B04-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-20A	PBLK1E		0.0088		0.0018	1.0
B04-D	PCB209 (DecaCB)	D0766-20A	PBLK1E		0.0048		0.0018	1.0
B05-A	PCB008 (2,4-diCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB018 (2,2,5-triCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB028 (2,4,4-triCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB044 (2,2,3,5-tetraCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB049 (2,2,4,5-tetraCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB052 (2,2,5,5-tetraCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB066 (2,3,4,4-tetraCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB087 (2,2,3,4,5-pentaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB101 (2,2,4,5,5-pentaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB105 (2,3,3,4,4-pentaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB118 (2,3,4,4,5-pentaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-13A	PBLK1D		0.0043		0.0027	1.0
B05-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-13A	PBLK1D		0.0035		0.0027	1.0
B05-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-A	PCB209 (DecaCB)	D0766-13A	PBLK1D		0.0027	U	0.0027	1.0
B05-B	PCB008 (2,4-diCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB018 (2,2,5-triCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB028 (2,4,4-triCB)	D0766-14A	PBLK1D		0.0039	P	0.0024	1.0
B05-B	PCB044 (2,2,3,5-tetraCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB049 (2,2,4,5-tetraCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB052 (2,2,5,5-tetraCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB066 (2,3,4,4-tetraCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB087 (2,2,3,4,5-pentaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB101 (2,2,4,5,5-pentaCB)	D0766-14A	PBLK1D		0.0052	P	0.0024	1.0
B05-B	PCB105 (2,3,3,4,4-pentaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB118 (2,3,4,4,5-pentaCB)	D0766-14A	PBLK1D		0.0032	P	0.0024	1.0
B05-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-14A	PBLK1D		0.0062		0.0024	1.0
B05-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-14A	PBLK1D		0.0053		0.0024	1.0
B05-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B05-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-B	PCB209 (DecaCB)	D0766-14A	PBLK1D		0.0024	U	0.0024	1.0
B05-C	PCB008 (2,4-diCB)	D0766-15A	PBLK1D		0.0035		0.002	1.0
B05-C	PCB018 (2,2,5-triCB)	D0766-15A	PBLK1D		0.0068	P	0.002	1.0
B05-C	PCB028 (2,4,4-triCB)	D0766-15A	PBLK1D		0.016		0.002	1.0
B05-C	PCB044 (2,2,3,5-tetraCB)	D0766-15A	PBLK1D		0.0091	P	0.002	1.0
B05-C	PCB049 (2,2,4,5-tetraCB)	D0766-15A	PBLK1D		0.0026	P	0.002	1.0
B05-C	PCB052 (2,2,5,5-tetraCB)	D0766-15A	PBLK1D		0.0086	P	0.002	1.0
B05-C	PCB066 (2,3,4,4-tetraCB)	D0766-15A	PBLK1D		0.0052	P	0.002	1.0
B05-C	PCB087 (2,2,3,4,5-pentaCB)	D0766-15A	PBLK1D		0.013	P	0.002	1.0
B05-C	PCB101 (2,2,4,5,5-pentaCB)	D0766-15A	PBLK1D		0.026	P	0.002	1.0
B05-C	PCB105 (2,3,3,4,4-pentaCB)	D0766-15A	PBLK1D		0.011		0.002	1.0
B05-C	PCB118 (2,3,4,4,5-pentaCB)	D0766-15A	PBLK1D		0.022		0.002	1.0
B05-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-15A	PBLK1D		0.0057		0.002	1.0
B05-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-15A	PBLK1D		0.032		0.002	1.0
B05-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-15A	PBLK1D		0.023		0.002	1.0
B05-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-15A	PBLK1D		0.0046		0.002	1.0
B05-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-15A	PBLK1D		0.0089		0.002	1.0
B05-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-15A	PBLK1D		0.002	U	0.002	1.0
B05-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-15A	PBLK1D		0.003		0.002	1.0
B05-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-15A	PBLK1D		0.0047	P	0.002	1.0
B05-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-15A	PBLK1D		0.002	U	0.002	1.0
B05-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-15A	PBLK1D		0.0044		0.002	1.0
B05-C	PCB209 (DecaCB)	D0766-15A	PBLK1D		0.0027		0.002	1.0
B05-D	PCB008 (2,4-diCB)	D0766-16A	PBLK1D		0.0052		0.0018	1.0
B05-D	PCB018 (2,2,5-triCB)	D0766-16A	PBLK1D		0.025	P	0.0018	1.0
B05-D	PCB028 (2,4,4-triCB)	D0766-16A	PBLK1D		0.031		0.0018	1.0
B05-D	PCB044 (2,2,3,5-tetraCB)	D0766-16A	PBLK1D		0.018	P	0.0018	1.0
B05-D	PCB049 (2,2,4,5-tetraCB)	D0766-16A	PBLK1D		0.022		0.0018	1.0
B05-D	PCB052 (2,2,5,5-tetraCB)	D0766-16A	PBLK1D		0.023		0.0018	1.0
B05-D	PCB066 (2,3,4,4-tetraCB)	D0766-16A	PBLK1D		0.041		0.0018	1.0
B05-D	PCB087 (2,2,3,4,5-pentaCB)	D0766-16A	PBLK1D		0.032	P	0.0018	1.0
B05-D	PCB101 (2,2,4,5,5-pentaCB)	D0766-16A	PBLK1D		0.055	P	0.0018	1.0
B05-D	PCB105 (2,3,3,4,4-pentaCB)	D0766-16A	PBLK1D		0.022	P	0.0018	1.0
B05-D	PCB118 (2,3,4,4,5-pentaCB)	D0766-16A	PBLK1D		0.042		0.0018	1.0
B05-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-16A	PBLK1D		0.012		0.0018	1.0
B05-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-16A	PBLK1D		0.063		0.0018	1.0
B05-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-16A	PBLK1D		0.046		0.0018	1.0
B05-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-16A	PBLK1D		0.0096		0.0018	1.0
B05-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-16A	PBLK1D		0.018		0.0018	1.0
B05-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-16A	PBLK1D		0.0018	U	0.0018	1.0
B05-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-16A	PBLK1D		0.007		0.0018	1.0
B05-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-16A	PBLK1D		0.0096	P	0.0018	1.0
B05-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-16A	PBLK1D		0.0038		0.0018	1.0
B05-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-16A	PBLK1D		0.0078		0.0018	1.0
B05-D	PCB209 (DecaCB)	D0766-16A	PBLK1D		0.0056		0.0018	1.0
B06-A	PCB008 (2,4-diCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB018 (2,2,5-triCB)	D0766-09A	PBLK1B		0.0074	P	0.0026	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B06-A	PCB028 (2,4,4-triCB)	D0766-09A	PBLK1B		0.0083		0.0026	1.0
B06-A	PCB044 (2,2,3,5-tetraCB)	D0766-09A	PBLK1B		0.0034		0.0026	1.0
B06-A	PCB049 (2,2,4,5-tetraCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB052 (2,2,5,5-tetraCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB066 (2,3,4,4-tetraCB)	D0766-09A	PBLK1B		0.0034	P	0.0026	1.0
B06-A	PCB087 (2,2,3,4,5-pentaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB101 (2,2,4,5,5-pentaCB)	D0766-09A	PBLK1B		0.0072	P	0.0026	1.0
B06-A	PCB105 (2,3,3,4,4-pentaCB)	D0766-09A	PBLK1B		0.004	P	0.0026	1.0
B06-A	PCB118 (2,3,4,4,5-pentaCB)	D0766-09A	PBLK1B		0.0091		0.0026	1.0
B06-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-09A	PBLK1B		0.0029		0.0026	1.0
B06-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-09A	PBLK1B		0.016		0.0026	1.0
B06-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-09A	PBLK1B		0.012		0.0026	1.0
B06-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-09A	PBLK1B		0.0042		0.0026	1.0
B06-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-09A	PBLK1B		0.0026	P	0.0026	1.0
B06-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-A	PCB209 (DecaCB)	D0766-09A	PBLK1B		0.0026	U	0.0026	1.0
B06-B	PCB008 (2,4-diCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB018 (2,2,5-triCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB028 (2,4,4-triCB)	D0766-10A	PBLK1B		0.0076		0.0022	1.0
B06-B	PCB044 (2,2,3,5-tetraCB)	D0766-10A	PBLK1B		0.003		0.0022	1.0
B06-B	PCB049 (2,2,4,5-tetraCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB052 (2,2,5,5-tetraCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB066 (2,3,4,4-tetraCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB087 (2,2,3,4,5-pentaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB101 (2,2,4,5,5-pentaCB)	D0766-10A	PBLK1B		0.0068	P	0.0022	1.0
B06-B	PCB105 (2,3,3,4,4-pentaCB)	D0766-10A	PBLK1B		0.0025	P	0.0022	1.0
B06-B	PCB118 (2,3,4,4,5-pentaCB)	D0766-10A	PBLK1B		0.0058		0.0022	1.0
B06-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-10A	PBLK1B		0.0099		0.0022	1.0
B06-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-10A	PBLK1B		0.0076		0.0022	1.0
B06-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-10A	PBLK1B		0.0025		0.0022	1.0
B06-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-B	PCB209 (DecaCB)	D0766-10A	PBLK1B		0.0022	U	0.0022	1.0
B06-C	PCB008 (2,4-diCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB018 (2,2,5-triCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB028 (2,4,4-triCB)	D0766-11A	PBLK1D		0.0062		0.0022	1.0
B06-C	PCB044 (2,2,3,5-tetraCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB049 (2,2,4,5-tetraCB)	D0766-11A	PBLK1D		0.0067		0.0022	1.0
B06-C	PCB052 (2,2,5,5-tetraCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0

Qualifiers
B: Value detected in method blank.
D: Dilution; E: Value above quantitation range.
P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B06-C	PCB066 (2,3,4,4-tetraCB)	D0766-11A	PBLK1D		0.0068	P	0.0022	1.0
B06-C	PCB087 (2,2,3,4,5-pentaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB101 (2,2,4,5,5-pentaCB)	D0766-11A	PBLK1D		0.0068	P	0.0022	1.0
B06-C	PCB105 (2,3,3,4,4-pentaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB118 (2,3,4,4,5-pentaCB)	D0766-11A	PBLK1D		0.0045	P	0.0022	1.0
B06-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-11A	PBLK1D		0.0084		0.0022	1.0
B06-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-11A	PBLK1D		0.0075		0.0022	1.0
B06-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-11A	PBLK1D		0.0027		0.0022	1.0
B06-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-C	PCB209 (DecaCB)	D0766-11A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB008 (2,4-diCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB018 (2,2,5-triCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB028 (2,4,4-triCB)	D0766-12A	PBLK1D		0.0082		0.0022	1.0
B06-D	PCB044 (2,2,3,5-tetraCB)	D0766-12A	PBLK1D		0.0042		0.0022	1.0
B06-D	PCB049 (2,2,4,5-tetraCB)	D0766-12A	PBLK1D		0.0066	P	0.0022	1.0
B06-D	PCB052 (2,2,5,5-tetraCB)	D0766-12A	PBLK1D		0.0068	P	0.0022	1.0
B06-D	PCB066 (2,3,4,4-tetraCB)	D0766-12A	PBLK1D		0.0089	P	0.0022	1.0
B06-D	PCB087 (2,2,3,4,5-pentaCB)	D0766-12A	PBLK1D		0.0081	P	0.0022	1.0
B06-D	PCB101 (2,2,4,5,5-pentaCB)	D0766-12A	PBLK1D		0.0086		0.0022	1.0
B06-D	PCB105 (2,3,3,4,4-pentaCB)	D0766-12A	PBLK1D		0.0024	P	0.0022	1.0
B06-D	PCB118 (2,3,4,4,5-pentaCB)	D0766-12A	PBLK1D		0.0061		0.0022	1.0
B06-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-12A	PBLK1D		0.01		0.0022	1.0
B06-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-12A	PBLK1D		0.0079		0.0022	1.0
B06-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-12A	PBLK1D		0.0036		0.0022	1.0
B06-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-12A	PBLK1D		0.0017	JP	0.0022	1.0
B06-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-12A	PBLK1D		0.0022	U	0.0022	1.0
B06-D	PCB209 (DecaCB)	D0766-12A	PBLK1D		0.0022		0.0022	1.0
B07-A	PCB008 (2,4-diCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB018 (2,2,5-triCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB028 (2,4,4-triCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB044 (2,2,3,5-tetraCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB049 (2,2,4,5-tetraCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB052 (2,2,5,5-tetraCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB066 (2,3,4,4-tetraCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB087 (2,2,3,4,5-pentaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB101 (2,2,4,5,5-pentaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB105 (2,3,3,4,4-pentaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B07-A	PCB118 (2,3,4,4,5-pentaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-01A	PBLK1F		0.0038		0.0027	1.0
B07-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-01A	PBLK1F		0.0031		0.0027	1.0
B07-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-A	PCB209 (DecaCB)	D0767-01A	PBLK1F		0.0027	U	0.0027	1.0
B07-B	PCB008 (2,4-diCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB018 (2,2,5-triCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB028 (2,4,4-triCB)	D0767-02A	PBLK1F		0.0058	P	0.0026	1.0
B07-B	PCB044 (2,2,3,5-tetraCB)	D0767-02A	PBLK1F		0.0029		0.0026	1.0
B07-B	PCB049 (2,2,4,5-tetraCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB052 (2,2,5,5-tetraCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB066 (2,3,4,4-tetraCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB087 (2,2,3,4,5-pentaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB101 (2,2,4,5,5-pentaCB)	D0767-02A	PBLK1F		0.0041	P	0.0026	1.0
B07-B	PCB105 (2,3,3,4,4-pentaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB118 (2,3,4,4,5-pentaCB)	D0767-02A	PBLK1F		0.0054		0.0026	1.0
B07-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-02A	PBLK1F		0.0089		0.0026	1.0
B07-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-02A	PBLK1F		0.0062		0.0026	1.0
B07-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-02A	PBLK1F		0.0034		0.0026	1.0
B07-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-B	PCB209 (DecaCB)	D0767-02A	PBLK1F		0.0026	U	0.0026	1.0
B07-C	PCB008 (2,4-diCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB018 (2,2,5-triCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB028 (2,4,4-triCB)	D0767-03A	PBLK1F		0.0059		0.0023	1.0
B07-C	PCB044 (2,2,3,5-tetraCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB049 (2,2,4,5-tetraCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB052 (2,2,5,5-tetraCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB066 (2,3,4,4-tetraCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB087 (2,2,3,4,5-pentaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB101 (2,2,4,5,5-pentaCB)	D0767-03A	PBLK1F		0.0064		0.0023	1.0
B07-C	PCB105 (2,3,3,4,4-pentaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB118 (2,3,4,4,5-pentaCB)	D0767-03A	PBLK1F		0.0041	P	0.0023	1.0
B07-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-03A	PBLK1F		0.0081		0.0023	1.0
B07-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-03A	PBLK1F		0.0063		0.0023	1.0

Qualifiers
B: Value detected in method blank.
D: Dilution; E: Value above quantitation range.
P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
B07-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-03A	PBLK1F		0.0028		0.0023	1.0
B07-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-C	PCB209 (DecaCB)	D0767-03A	PBLK1F		0.0023	U	0.0023	1.0
B07-D	PCB008 (2,4-diCB)	D0767-04A	PBLK1F		0.0035		0.0022	1.0
B07-D	PCB018 (2,2,5-triCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB028 (2,4,4-triCB)	D0767-04A	PBLK1F		0.0084		0.0022	1.0
B07-D	PCB044 (2,2,3,5-tetraCB)	D0767-04A	PBLK1F		0.0041		0.0022	1.0
B07-D	PCB049 (2,2,4,5-tetraCB)	D0767-04A	PBLK1F		0.0069	P	0.0022	1.0
B07-D	PCB052 (2,2,5,5-tetraCB)	D0767-04A	PBLK1F		0.0065	P	0.0022	1.0
B07-D	PCB066 (2,3,4,4-tetraCB)	D0767-04A	PBLK1F		0.0026	P	0.0022	1.0
B07-D	PCB087 (2,2,3,4,5-pentaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB101 (2,2,4,5,5-pentaCB)	D0767-04A	PBLK1F		0.01		0.0022	1.0
B07-D	PCB105 (2,3,3,4,4-pentaCB)	D0767-04A	PBLK1F		0.0026	P	0.0022	1.0
B07-D	PCB118 (2,3,4,4,5-pentaCB)	D0767-04A	PBLK1F		0.0066	P	0.0022	1.0
B07-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-04A	PBLK1F		0.012		0.0022	1.0
B07-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-04A	PBLK1F		0.0087		0.0022	1.0
B07-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-04A	PBLK1F		0.0038		0.0022	1.0
B07-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
B07-D	PCB209 (DecaCB)	D0767-04A	PBLK1F		0.0022	U	0.0022	1.0
C1-A	PCB008 (2,4-diCB)	D0766-05A	PBLK1B		0.013	P	0.002	1.0
C1-A	PCB018 (2,2,5-triCB)	D0766-05A	PBLK1B		0.047	P	0.002	1.0
C1-A	PCB028 (2,4,4-triCB)	D0766-05A	PBLK1B		0.033		0.002	1.0
C1-A	PCB044 (2,2,3,5-tetraCB)	D0766-05A	PBLK1B		0.027	P	0.002	1.0
C1-A	PCB049 (2,2,4,5-tetraCB)	D0766-05A	PBLK1B		0.025		0.002	1.0
C1-A	PCB052 (2,2,5,5-tetraCB)	D0766-05A	PBLK1B		0.034		0.002	1.0
C1-A	PCB066 (2,3,4,4-tetraCB)	D0766-05A	PBLK1B		0.03	P	0.002	1.0
C1-A	PCB087 (2,2,3,4,5-pentaCB)	D0766-05A	PBLK1B		0.052	P	0.002	1.0
C1-A	PCB101 (2,2,4,5,5-pentaCB)	D0766-05A	PBLK1B		0.085	P	0.002	1.0
C1-A	PCB105 (2,3,3,4,4-pentaCB)	D0766-05A	PBLK1B		0.032	P	0.002	1.0
C1-A	PCB118 (2,3,4,4,5-pentaCB)	D0766-05A	PBLK1B		0.064		0.002	1.0
C1-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-05A	PBLK1B		0.018		0.002	1.0
C1-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-05A	PBLK1B		0.098		0.002	1.0
C1-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-05A	PBLK1B		0.065		0.002	1.0
C1-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-05A	PBLK1B		0.015		0.002	1.0
C1-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-05A	PBLK1B		0.032		0.002	1.0
C1-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-05A	PBLK1B		0.002	U	0.002	1.0
C1-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-05A	PBLK1B		0.011		0.002	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C1-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-05A	PBLK1B		0.016	P	0.002	1.0
C1-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-05A	PBLK1B		0.0038	P	0.002	1.0
C1-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-05A	PBLK1B		0.015		0.002	1.0
C1-A	PCB209 (DecaCB)	D0766-05A	PBLK1B		0.012		0.002	1.0
C1-B	PCB008 (2,4-diCB)	D0766-06A	PBLK1B		0.0065		0.0019	1.0
C1-B	PCB018 (2,2,5-triCB)	D0766-06A	PBLK1B		0.0075	P	0.0019	1.0
C1-B	PCB028 (2,4,4-triCB)	D0766-06A	PBLK1B		0.0071		0.0019	1.0
C1-B	PCB044 (2,2,3,5-tetraCB)	D0766-06A	PBLK1B		0.0046		0.0019	1.0
C1-B	PCB049 (2,2,4,5-tetraCB)	D0766-06A	PBLK1B		0.0072	P	0.0019	1.0
C1-B	PCB052 (2,2,5,5-tetraCB)	D0766-06A	PBLK1B		0.0036	P	0.0019	1.0
C1-B	PCB066 (2,3,4,4-tetraCB)	D0766-06A	PBLK1B		0.0044	P	0.0019	1.0
C1-B	PCB087 (2,2,3,4,5-pentaCB)	D0766-06A	PBLK1B		0.0081	P	0.0019	1.0
C1-B	PCB101 (2,2,4,5,5-pentaCB)	D0766-06A	PBLK1B		0.017	P	0.0019	1.0
C1-B	PCB105 (2,3,3,4,4-pentaCB)	D0766-06A	PBLK1B		0.007		0.0019	1.0
C1-B	PCB118 (2,3,4,4,5-pentaCB)	D0766-06A	PBLK1B		0.013		0.0019	1.0
C1-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-06A	PBLK1B		0.0037		0.0019	1.0
C1-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-06A	PBLK1B		0.022		0.0019	1.0
C1-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-06A	PBLK1B		0.016		0.0019	1.0
C1-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-06A	PBLK1B		0.0022	P	0.0019	1.0
C1-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-06A	PBLK1B		0.0035	P	0.0019	1.0
C1-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-06A	PBLK1B		0.0019	U	0.0019	1.0
C1-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-06A	PBLK1B		0.0019	U	0.0019	1.0
C1-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-06A	PBLK1B		0.0034	P	0.0019	1.0
C1-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-06A	PBLK1B		0.0019	U	0.0019	1.0
C1-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-06A	PBLK1B		0.0033		0.0019	1.0
C1-B	PCB209 (DecaCB)	D0766-06A	PBLK1B		0.0019	U	0.0019	1.0
C1-C	PCB008 (2,4-diCB)	D0766-07A	PBLK1B		0.0055		0.0018	1.0
C1-C	PCB018 (2,2,5-triCB)	D0766-07A	PBLK1B		0.0024	P	0.0018	1.0
C1-C	PCB028 (2,4,4-triCB)	D0766-07A	PBLK1B		0.0065		0.0018	1.0
C1-C	PCB044 (2,2,3,5-tetraCB)	D0766-07A	PBLK1B		0.0024		0.0018	1.0
C1-C	PCB049 (2,2,4,5-tetraCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0
C1-C	PCB052 (2,2,5,5-tetraCB)	D0766-07A	PBLK1B		0.0047	P	0.0018	1.0
C1-C	PCB066 (2,3,4,4-tetraCB)	D0766-07A	PBLK1B		0.0052		0.0018	1.0
C1-C	PCB087 (2,2,3,4,5-pentaCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0
C1-C	PCB101 (2,2,4,5,5-pentaCB)	D0766-07A	PBLK1B		0.016		0.0018	1.0
C1-C	PCB105 (2,3,3,4,4-pentaCB)	D0766-07A	PBLK1B		0.0042		0.0018	1.0
C1-C	PCB118 (2,3,4,4,5-pentaCB)	D0766-07A	PBLK1B		0.0077		0.0018	1.0
C1-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-07A	PBLK1B		0.0024		0.0018	1.0
C1-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-07A	PBLK1B		0.014		0.0018	1.0
C1-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-07A	PBLK1B		0.01		0.0018	1.0
C1-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0
C1-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-07A	PBLK1B		0.0034		0.0018	1.0
C1-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0
C1-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0
C1-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-07A	PBLK1B		0.002	P	0.0018	1.0
C1-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0
C1-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-07A	PBLK1B		0.0023		0.0018	1.0
C1-C	PCB209 (DecaCB)	D0766-07A	PBLK1B		0.0018	U	0.0018	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C1-D	PCB008 (2,4-diCB)	D0766-08A	PBLK1B		0.016	P	0.002	1.0
C1-D	PCB018 (2,2,5-triCB)	D0766-08A	PBLK1B		0.058	P	0.002	1.0
C1-D	PCB028 (2,4,4-triCB)	D0766-08A	PBLK1B		0.031	P	0.002	1.0
C1-D	PCB044 (2,2,3,5-tetraCB)	D0766-08A	PBLK1B		0.034	P	0.002	1.0
C1-D	PCB049 (2,2,4,5-tetraCB)	D0766-08A	PBLK1B		0.035		0.002	1.0
C1-D	PCB052 (2,2,5,5-tetraCB)	D0766-08A	PBLK1B		0.045		0.002	1.0
C1-D	PCB066 (2,3,4,4-tetraCB)	D0766-08A	PBLK1B		0.08		0.002	1.0
C1-D	PCB087 (2,2,3,4,5-pentaCB)	D0766-08A	PBLK1B		0.072	P	0.002	1.0
C1-D	PCB101 (2,2,4,5,5-pentaCB)	D0766-08A	PBLK1B		0.17		0.002	1.0
C1-D	PCB105 (2,3,3,4,4-pentaCB)	D0766-08A	PBLK1B		0.044	P	0.002	1.0
C1-D	PCB118 (2,3,4,4,5-pentaCB)	D0766-08A	PBLK1B		0.087		0.002	1.0
C1-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-08A	PBLK1B		0.028		0.002	1.0
C1-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-08A	PBLK1B		0.14		0.002	1.0
C1-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-08A	PBLK1B		0.092		0.002	1.0
C1-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-08A	PBLK1B		0.02		0.002	1.0
C1-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-08A	PBLK1B		0.043		0.002	1.0
C1-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-08A	PBLK1B		0.002	U	0.002	1.0
C1-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-08A	PBLK1B		0.015		0.002	1.0
C1-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-08A	PBLK1B		0.023	P	0.002	1.0
C1-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-08A	PBLK1B		0.0082		0.002	1.0
C1-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-08A	PBLK1B		0.019		0.002	1.0
C1-D	PCB209 (DecaCB)	D0766-08A	PBLK1B		0.015	P	0.002	1.0
C2-A	PCB008 (2,4-diCB)	D0766-01A	PBLK1B		0.016		0.002	1.0
C2-A	PCB018 (2,2,5-triCB)	D0766-01A	PBLK1B		0.044	P	0.002	1.0
C2-A	PCB028 (2,4,4-triCB)	D0766-01A	PBLK1B		0.027	P	0.002	1.0
C2-A	PCB044 (2,2,3,5-tetraCB)	D0766-01A	PBLK1B		0.025	P	0.002	1.0
C2-A	PCB049 (2,2,4,5-tetraCB)	D0766-01A	PBLK1B		0.016	P	0.002	1.0
C2-A	PCB052 (2,2,5,5-tetraCB)	D0766-01A	PBLK1B		0.033		0.002	1.0
C2-A	PCB066 (2,3,4,4-tetraCB)	D0766-01A	PBLK1B		0.027	P	0.002	1.0
C2-A	PCB087 (2,2,3,4,5-pentaCB)	D0766-01A	PBLK1B		0.052	P	0.002	1.0
C2-A	PCB101 (2,2,4,5,5-pentaCB)	D0766-01A	PBLK1B		0.087	P	0.002	1.0
C2-A	PCB105 (2,3,3,4,4-pentaCB)	D0766-01A	PBLK1B		0.032	P	0.002	1.0
C2-A	PCB118 (2,3,4,4,5-pentaCB)	D0766-01A	PBLK1B		0.063		0.002	1.0
C2-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-01A	PBLK1B		0.017		0.002	1.0
C2-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-01A	PBLK1B		0.098		0.002	1.0
C2-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-01A	PBLK1B		0.065		0.002	1.0
C2-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-01A	PBLK1B		0.014		0.002	1.0
C2-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-01A	PBLK1B		0.03		0.002	1.0
C2-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-01A	PBLK1B		0.002	U	0.002	1.0
C2-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-01A	PBLK1B		0.0094		0.002	1.0
C2-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-01A	PBLK1B		0.016	P	0.002	1.0
C2-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-01A	PBLK1B		0.0043	P	0.002	1.0
C2-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-01A	PBLK1B		0.014		0.002	1.0
C2-A	PCB209 (DecaCB)	D0766-01A	PBLK1B		0.01	P	0.002	1.0
C2-B	PCB008 (2,4-diCB)	D0766-02A	PBLK1B		0.0034	P	0.0019	1.0
C2-B	PCB018 (2,2,5-triCB)	D0766-02A	PBLK1B		0.014	P	0.0019	1.0
C2-B	PCB028 (2,4,4-triCB)	D0766-02A	PBLK1B		0.012		0.0019	1.0
C2-B	PCB044 (2,2,3,5-tetraCB)	D0766-02A	PBLK1B		0.0091	P	0.0019	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C2-B	PCB049 (2,2,4,5-tetraCB)	D0766-02A	PBLK1B		0.0054	P	0.0019	1.0
C2-B	PCB052 (2,2,5,5-tetraCB)	D0766-02A	PBLK1B		0.012		0.0019	1.0
C2-B	PCB066 (2,3,4,4-tetraCB)	D0766-02A	PBLK1B		0.012	P	0.0019	1.0
C2-B	PCB087 (2,2,3,4,5-pentaCB)	D0766-02A	PBLK1B		0.02	P	0.0019	1.0
C2-B	PCB101 (2,2,4,5,5-pentaCB)	D0766-02A	PBLK1B		0.032	P	0.0019	1.0
C2-B	PCB105 (2,3,3,4,4-pentaCB)	D0766-02A	PBLK1B		0.014		0.0019	1.0
C2-B	PCB118 (2,3,4,4,5-pentaCB)	D0766-02A	PBLK1B		0.024		0.0019	1.0
C2-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-02A	PBLK1B		0.0071		0.0019	1.0
C2-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-02A	PBLK1B		0.038		0.0019	1.0
C2-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-02A	PBLK1B		0.029		0.0019	1.0
C2-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-02A	PBLK1B		0.0045	P	0.0019	1.0
C2-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-02A	PBLK1B		0.011		0.0019	1.0
C2-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-02A	PBLK1B		0.0019	U	0.0019	1.0
C2-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-02A	PBLK1B		0.0031	P	0.0019	1.0
C2-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-02A	PBLK1B		0.0058	P	0.0019	1.0
C2-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-02A	PBLK1B		0.0044		0.0019	1.0
C2-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-02A	PBLK1B		0.006		0.0019	1.0
C2-B	PCB209 (DecaCB)	D0766-02A	PBLK1B		0.0019	U	0.0019	1.0
C2-C	PCB008 (2,4-diCB)	D0766-03A	PBLK1B		0.0018	U	0.0018	1.0
C2-C	PCB018 (2,2,5-triCB)	D0766-03A	PBLK1B		0.046	P	0.0018	1.0
C2-C	PCB028 (2,4,4-triCB)	D0766-03A	PBLK1B		0.051		0.0018	1.0
C2-C	PCB044 (2,2,3,5-tetraCB)	D0766-03A	PBLK1B		0.037		0.0018	1.0
C2-C	PCB049 (2,2,4,5-tetraCB)	D0766-03A	PBLK1B		0.0018	U	0.0018	1.0
C2-C	PCB052 (2,2,5,5-tetraCB)	D0766-03A	PBLK1B		0.0018	U	0.0018	1.0
C2-C	PCB066 (2,3,4,4-tetraCB)	D0766-03A	PBLK1B		0.037	P	0.0018	1.0
C2-C	PCB087 (2,2,3,4,5-pentaCB)	D0766-03A	PBLK1B		0.046	P	0.0018	1.0
C2-C	PCB101 (2,2,4,5,5-pentaCB)	D0766-03A	PBLK1B		0.097		0.0018	1.0
C2-C	PCB105 (2,3,3,4,4-pentaCB)	D0766-03A	PBLK1B		0.029	P	0.0018	1.0
C2-C	PCB118 (2,3,4,4,5-pentaCB)	D0766-03A	PBLK1B		0.054		0.0018	1.0
C2-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-03A	PBLK1B		0.014		0.0018	1.0
C2-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-03A	PBLK1B		0.084		0.0018	1.0
C2-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-03A	PBLK1B		0.057		0.0018	1.0
C2-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-03A	PBLK1B		0.011		0.0018	1.0
C2-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-03A	PBLK1B		0.024		0.0018	1.0
C2-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-03A	PBLK1B		0.0018	U	0.0018	1.0
C2-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-03A	PBLK1B		0.0071		0.0018	1.0
C2-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-03A	PBLK1B		0.014		0.0018	1.0
C2-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-03A	PBLK1B		0.002	P	0.0018	1.0
C2-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-03A	PBLK1B		0.0088		0.0018	1.0
C2-C	PCB209 (DecaCB)	D0766-03A	PBLK1B		0.006	P	0.0018	1.0
C2-D	PCB008 (2,4-diCB)	D0766-04A	PBLK1B		0.028	P	0.0019	1.0
C2-D	PCB008 (2,4-diCB)	D0766-04ADL	PBLK1B	DL	0.029	D	0.0038	2.0
C2-D	PCB018 (2,2,5-triCB)	D0766-04A	PBLK1B		0.081	P	0.0019	1.0
C2-D	PCB018 (2,2,5-triCB)	D0766-04ADL	PBLK1B	DL	0.086	PD	0.0038	2.0
C2-D	PCB028 (2,4,4-triCB)	D0766-04A	PBLK1B		0.047	P	0.0019	1.0
C2-D	PCB028 (2,4,4-triCB)	D0766-04ADL	PBLK1B	DL	0.058	D	0.0038	2.0
C2-D	PCB044 (2,2,3,5-tetraCB)	D0766-04A	PBLK1B		0.057	P	0.0019	1.0
C2-D	PCB044 (2,2,3,5-tetraCB)	D0766-04ADL	PBLK1B	DL	0.044	PD	0.0038	2.0

Qualifiers
B: Value detected in method blank.
D: Dilution; E: Value above quantitation range.
P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
C2-D	PCB049 (2,2,4,5-tetraCB)	D0766-04A	PBLK1B		0.051		0.0019	1.0
C2-D	PCB049 (2,2,4,5-tetraCB)	D0766-04ADL	PBLK1B	DL	0.0038	U	0.0038	2.0
C2-D	PCB052 (2,2,5,5-tetraCB)	D0766-04A	PBLK1B		0.076		0.0019	1.0
C2-D	PCB052 (2,2,5,5-tetraCB)	D0766-04ADL	PBLK1B	DL	0.058	PD	0.0038	2.0
C2-D	PCB066 (2,3,4,4-tetraCB)	D0766-04A	PBLK1B		0.12		0.0019	1.0
C2-D	PCB066 (2,3,4,4-tetraCB)	D0766-04ADL	PBLK1B	DL	0.063	PD	0.0038	2.0
C2-D	PCB087 (2,2,3,4,5-pentaCB)	D0766-04A	PBLK1B		0.098	P	0.0019	1.0
C2-D	PCB087 (2,2,3,4,5-pentaCB)	D0766-04ADL	PBLK1B	DL	0.1	PD	0.0038	2.0
C2-D	PCB101 (2,2,4,5,5-pentaCB)	D0766-04A	PBLK1B		0.26	E	0.0019	1.0
C2-D	PCB101 (2,2,4,5,5-pentaCB)	D0766-04ADL	PBLK1B	DL	0.23	D	0.0038	2.0
C2-D	PCB105 (2,3,3,4,4-pentaCB)	D0766-04A	PBLK1B		0.059	P	0.0019	1.0
C2-D	PCB105 (2,3,3,4,4-pentaCB)	D0766-04ADL	PBLK1B	DL	0.06	PD	0.0038	2.0
C2-D	PCB118 (2,3,4,4,5-pentaCB)	D0766-04A	PBLK1B		0.11		0.0019	1.0
C2-D	PCB118 (2,3,4,4,5-pentaCB)	D0766-04ADL	PBLK1B	DL	0.11	D	0.0038	2.0
C2-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-04A	PBLK1B		0.036		0.0019	1.0
C2-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0766-04ADL	PBLK1B	DL	0.037	D	0.0038	2.0
C2-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-04A	PBLK1B		0.18		0.0019	1.0
C2-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0766-04ADL	PBLK1B	DL	0.18	D	0.0038	2.0
C2-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-04A	PBLK1B		0.12		0.0019	1.0
C2-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0766-04ADL	PBLK1B	DL	0.12	D	0.0038	2.0
C2-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-04A	PBLK1B		0.028		0.0019	1.0
C2-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0766-04ADL	PBLK1B	DL	0.024	D	0.0038	2.0
C2-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-04A	PBLK1B		0.057	P	0.0019	1.0
C2-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0766-04ADL	PBLK1B	DL	0.054	D	0.0038	2.0
C2-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-04A	PBLK1B		0.0019	U	0.0019	1.0
C2-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0766-04ADL	PBLK1B	DL	0.0038	U	0.0038	2.0
C2-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-04A	PBLK1B		0.022		0.0019	1.0
C2-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0766-04ADL	PBLK1B	DL	0.021	D	0.0038	2.0
C2-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-04A	PBLK1B		0.03	P	0.0019	1.0
C2-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0766-04ADL	PBLK1B	DL	0.028	PD	0.0038	2.0
C2-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-04A	PBLK1B		0.013		0.0019	1.0
C2-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0766-04ADL	PBLK1B	DL	0.01	D	0.0038	2.0
C2-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-04A	PBLK1B		0.031		0.0019	1.0
C2-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0766-04ADL	PBLK1B	DL	0.025	D	0.0038	2.0
C2-D	PCB209 (DecaCB)	D0766-04A	PBLK1B		0.022	P	0.0019	1.0
C2-D	PCB209 (DecaCB)	D0766-04ADL	PBLK1B	DL	0.021	D	0.0038	2.0
R01-A	PCB008 (2,4-diCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB018 (2,2,5-triCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB028 (2,4,4-triCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB044 (2,2,3,5-tetraCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB049 (2,2,4,5-tetraCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB052 (2,2,5,5-tetraCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB066 (2,3,4,4-tetraCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB087 (2,2,3,4,5-pentaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB101 (2,2,4,5,5-pentaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB105 (2,3,3,4,4-pentaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB118 (2,3,4,4,5-pentaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R01-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-A	PCB209 (DecaCB)	D0767-09A	PBLK1E		0.0025	U	0.0025	1.0
R01-B	PCB008 (2,4-diCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB018 (2,2,5-triCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB028 (2,4,4-triCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB044 (2,2,3,5-tetraCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB049 (2,2,4,5-tetraCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB052 (2,2,5,5-tetraCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB066 (2,3,4,4-tetraCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB087 (2,2,3,4,5-pentaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB101 (2,2,4,5,5-pentaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB105 (2,3,3,4,4-pentaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB118 (2,3,4,4,5-pentaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-B	PCB209 (DecaCB)	D0767-10A	PBLK1E		0.0024	U	0.0024	1.0
R01-C	PCB008 (2,4-diCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB018 (2,2,5-triCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB028 (2,4,4-triCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB044 (2,2,3,5-tetraCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB049 (2,2,4,5-tetraCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB052 (2,2,5,5-tetraCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB066 (2,3,4,4-tetraCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB087 (2,2,3,4,5-pentaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB101 (2,2,4,5,5-pentaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB105 (2,3,3,4,4-pentaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB118 (2,3,4,4,5-pentaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R01-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-C	PCB209 (DecaCB)	D0767-11A	PBLK1F		0.0024	U	0.0024	1.0
R01-D	PCB008 (2,4-diCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB018 (2,2,5-triCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB028 (2,4,4-triCB)	D0767-12A	PBLK1E		0.0025	P	0.0022	1.0
R01-D	PCB044 (2,2,3,5-tetraCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB049 (2,2,4,5-tetraCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB052 (2,2,5,5-tetraCB)	D0767-12A	PBLK1E		0.0058	P	0.0022	1.0
R01-D	PCB066 (2,3,4,4-tetraCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB087 (2,2,3,4,5-pentaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB101 (2,2,4,5,5-pentaCB)	D0767-12A	PBLK1E		0.0037	P	0.0022	1.0
R01-D	PCB105 (2,3,3,4,4-pentaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB118 (2,3,4,4,5-pentaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-12A	PBLK1E		0.0023		0.0022	1.0
R01-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-12A	PBLK1E		0.0024		0.0022	1.0
R01-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R01-D	PCB209 (DecaCB)	D0767-12A	PBLK1E		0.0022	U	0.0022	1.0
R02-A	PCB008 (2,4-diCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB018 (2,2,5-triCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB028 (2,4,4-triCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB044 (2,2,3,5-tetraCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB049 (2,2,4,5-tetraCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB052 (2,2,5,5-tetraCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB066 (2,3,4,4-tetraCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB087 (2,2,3,4,5-pentaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB101 (2,2,4,5,5-pentaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB105 (2,3,3,4,4-pentaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB118 (2,3,4,4,5-pentaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R02-A	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-A	PCB209 (DecaCB)	D0767-05A	PBLK1F		0.0025	U	0.0025	1.0
R02-B	PCB008 (2,4-diCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB018 (2,2,5-triCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB028 (2,4,4-triCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB044 (2,2,3,5-tetraCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB049 (2,2,4,5-tetraCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB052 (2,2,5,5-tetraCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB066 (2,3,4,4-tetraCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB087 (2,2,3,4,5-pentaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB101 (2,2,4,5,5-pentaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB105 (2,3,3,4,4-pentaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB118 (2,3,4,4,5-pentaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-B	PCB209 (DecaCB)	D0767-06A	PBLK1F		0.0023	U	0.0023	1.0
R02-C	PCB008 (2,4-diCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB018 (2,2,5-triCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB028 (2,4,4-triCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB044 (2,2,3,5-tetraCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB049 (2,2,4,5-tetraCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB052 (2,2,5,5-tetraCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB066 (2,3,4,4-tetraCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB087 (2,2,3,4,5-pentaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB101 (2,2,4,5,5-pentaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB105 (2,3,3,4,4-pentaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB118 (2,3,4,4,5-pentaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-C	PCB209 (DecaCB)	D0767-07A	PBLK1F		0.0022	U	0.0022	1.0
R02-D	PCB008 (2,4-diCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB018 (2,2,5-triCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0

Qualifiers

B: Value detected in method blank.

D: Dilution; E: Value above quantitation range.

P: Second column >40% different than first.

Appendix Table D-4. PCB Congener Results (mg/kg dry weight)

Station	PCB Congener (name)	LabID	BatchID	Rep	Result	Qual	RL	Dilution
R02-D	PCB028 (2,4,4-triCB)	D0767-08A	PBLK1F		0.0027	P	0.002	1.0
R02-D	PCB044 (2,2,3,5-tetraCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB049 (2,2,4,5-tetraCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB052 (2,2,5,5-tetraCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB066 (2,3,4,4-tetraCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB087 (2,2,3,4,5-pentaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB101 (2,2,4,5,5-pentaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB105 (2,3,3,4,4-pentaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB118 (2,3,4,4,5-pentaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-08A	PBLK1F		0.0025	P	0.002	1.0
R02-D	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-08A	PBLK1F		0.003		0.002	1.0
R02-D	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
R02-D	PCB209 (DecaCB)	D0767-08A	PBLK1F		0.002	U	0.002	1.0
RINSATE	PCB008 (2,4-diCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB018 (2,2,5-triCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB028 (2,4,4-triCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB044 (2,2,3,5-tetraCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB049 (2,2,4,5-tetraCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB052 (2,2,5,5-tetraCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB066 (2,3,4,4-tetraCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB087 (2,2,3,4,5-pentaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB101 (2,2,4,5,5-pentaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB105 (2,3,3,4,4-pentaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB118 (2,3,4,4,5-pentaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB128 (2,2,3,3,4,4-hexaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB138 (2,2,3,4,4,5-hexaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB153 (2,2,4,4,5,5-hexaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB170 (2,2,3,3,4,4,5-heptaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB180 (2,2,3,4,4,5,5-heptaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB183 (2,2,3,4,4,5,6-heptaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB184 (2,2,3,4,4,6,6-heptaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB187 (2,2,3,4,5,5,6-heptaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB195 (2,2,3,3,4,4,5,6-octaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB206 (2,2,3,3,4,4,5,5,6-nonaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0
RINSATE	PCB209 (DecaCB)	D0767-17A	PBLK1A		0.02	U	0.02	1.0

Qualifiers
B: Value detected in method blank.
D: Dilution; E: Value above quantitation range.
P: Second column >40% different than first.

Appendix Table D5. Grain Size and Water Content Results (%)

Station	Rep	Parameter	Result
B03-A		Clay	28.1
B03-A		Fines	80.1
B03-A		Gravel	0.2
B03-A		Sand	19.7
B03-A		Silt	52.0
B03-A		Water Content	142.12
B03-B		Clay	24.2
B03-B		Fines	67.3
B03-B		Gravel	0.6
B03-B		Sand	32.2
B03-B		Silt	43.1
B03-B		Water Content	91.45
B03-C		Clay	18.5
B03-C		Fines	52
B03-C		Gravel	1.1
B03-C		Sand	46.9
B03-C		Silt	33.5
B03-C		Water Content	76.28
B03-D		Clay	18.0
B03-D		Fines	47.4
B03-D		Gravel	1.4
B03-D		Sand	51.2
B03-D		Silt	29.4
B03-D		Water Content	86.94
B04-A		Clay	30.9
B04-A		Fines	87.9
B04-A		Gravel	0.0
B04-A		Sand	12.1
B04-A		Silt	56.9
B04-A		Water Content	144.96
B04-B		Clay	28.1
B04-B		Fines	77.2
B04-B		Gravel	0.2
B04-B		Sand	22.6
B04-B		Silt	49.1
B04-B		Water Content	119.14
B04-C		Clay	18.0
B04-C		Fines	49.5
B04-C		Gravel	1.1
B04-C		Sand	49.4
B04-C		Silt	31.4
B04-C		Water Content	75.37
B04-D		Clay	13.5
B04-D		Fines	35.4
B04-D		Gravel	0.9
B04-D		Sand	63.7
B04-D		Silt	21.9
B04-D		Water Content	67.91
B05-A		Clay	34.4
B05-A		Fines	90.8
B05-A		Gravel	0.4

Total fines calculated from silt and clay. Water content calculated as weight of water/weight of solid, thus possible to have >100%.

Appendix Table D5. Grain Size and Water Content Results (%)

Station	Rep	Parameter	Result
B05-A		Sand	8.9
B05-A		Silt	56.3
B05-A		Water Content	147.55
B05-B		Clay	30.2
B05-B		Fines	80.1
B05-B		Gravel	2.8
B05-B		Sand	17.1
B05-B		Silt	49.9
B05-B		Water Content	117.94
B05-C		Clay	19.6
B05-C		Fines	54.4
B05-C		Gravel	4.9
B05-C		Sand	40.6
B05-C		Silt	34.8
B05-C		Water Content	74.04
B05-D		Clay	12.5
B05-D		Fines	30
B05-D		Gravel	29.9
B05-D		Sand	40.2
B05-D		Silt	17.5
B05-D		Water Content	62.55
B06-A		Clay	26.4
B06-A		Fines	76.7
B06-A		Gravel	1.0
B06-A		Sand	22.3
B06-A		Silt	50.4
B06-A		Water Content	139.52
B06-B		Clay	29.2
B06-B		Fines	85.5
B06-B		Gravel	0.5
B06-B		Sand	14.0
B06-B		Silt	56.3
B06-B		Water Content	111.62
B06-C		Clay	27.5
B06-C		Fines	83
B06-C		Gravel	1.6
B06-C		Sand	15.4
B06-C		Silt	55.5
B06-C		Water Content	103.31
B06-D	A	Clay	28.1
B06-D	A	Fines	85.2
B06-D	A	Gravel	1.3
B06-D	A	Sand	13.5
B06-D	A	Silt	57.1
B06-D	B	Clay	26.9
B06-D	B	Fines	86.7
B06-D	B	Gravel	0.3
B06-D	B	Sand	13.0
B06-D	B	Silt	59.8
B06-D	C	Clay	29.1
B06-D	C	Fines	86.4

Total fines calculated from silt and clay. Water content calculated as weight of water/weight of solid, thus possible to have >100%.

Appendix Table D5. Grain Size and Water Content Results (%)

Station	Rep	Parameter	Result
B06-D	C	Gravel	0.1
B06-D	C	Sand	13.5
B06-D	C	Silt	57.3
B06-D		Water Content	108.79
B07-A		Clay	33.0
B07-A		Fines	87.5
B07-A		Gravel	0.9
B07-A		Sand	11.6
B07-A		Silt	54.5
B07-A		Water Content	151.44
B07-B		Clay	29.2
B07-B		Fines	85
B07-B		Gravel	1.2
B07-B		Sand	13.8
B07-B		Silt	55.9
B07-B		Water Content	131.05
B07-C		Clay	38.1
B07-C		Fines	87.9
B07-C		Gravel	0.1
B07-C		Sand	11.9
B07-C		Silt	49.8
B07-C		Water Content	116.99
B07-D		Clay	37.8
B07-D		Fines	85.7
B07-D		Gravel	0.7
B07-D		Sand	13.6
B07-D		Silt	47.9
B07-D		Water Content	115.75
C1-A		Clay	28.5
C1-A		Fines	52.9
C1-A		Gravel	3.7
C1-A		Sand	43.4
C1-A		Silt	24.4
C1-A		Water Content	89.43
C1-B		Clay	33.8
C1-B		Fines	72.8
C1-B		Gravel	1.3
C1-B		Sand	26.0
C1-B		Silt	39.0
C1-B		Water Content	88.67
C1-C		Clay	33.1
C1-C		Fines	76
C1-C		Gravel	0.2
C1-C		Sand	23.8
C1-C		Silt	42.9
C1-C		Water Content	87.54
C1-D	A	Clay	25.7
C1-D	A	Fines	54.3
C1-D	A	Gravel	3.8
C1-D	A	Sand	41.9
C1-D	A	Silt	28.6

Total fines calculated from silt and clay. Water content calculated as weight of water/weight of solid, thus possible to have >100%.

Appendix Table D5. Grain Size and Water Content Results (%)

Station	Rep	Parameter	Result
C1-D	B	Clay	30.0
C1-D	B	Fines	29.5
C1-D	B	Fines	55
C1-D	B	Gravel	2.4
C1-D	B	Sand	42.5
C1-D	B	Silt	25.1
C1-D	C	Clay	27.7
C1-D	C	Fines	54.8
C1-D	C	Gravel	2.9
C1-D	C	Sand	42.3
C1-D	C	Silt	27.1
C1-D		Water Content	81.54
C2-A		Clay	22.6
C2-A		Fines	45.6
C2-A		Gravel	9.3
C2-A		Sand	45.1
C2-A		Silt	23.0
C2-A		Water Content	86.99
C2-B		Clay	27.8
C2-B		Fines	62.2
C2-B		Gravel	1.7
C2-B		Sand	36.1
C2-B		Silt	34.4
C2-B		Water Content	87.28
C2-C		Clay	25.7
C2-C		Fines	62.6
C2-C		Gravel	0.7
C2-C		Sand	36.7
C2-C		Silt	36.9
C2-C		Water Content	78.62
C2-D		Clay	20.4
C2-D		Fines	50.6
C2-D		Gravel	6.4
C2-D		Sand	43.0
C2-D		Silt	30.2
C2-D		Water Content	96.91
R01-A		Clay	31.0
R01-A		Fines	88.2
R01-A		Gravel	0.0
R01-A		Sand	11.8
R01-A		Silt	57.3
R01-A		Water Content	135.64
R01-B		Clay	31.6
R01-B		Fines	87.9
R01-B		Gravel	0.2
R01-B		Sand	11.9
R01-B		Silt	56.3
R01-B		Water Content	123.55
R01-C		Clay	29.9
R01-C		Fines	86.6
R01-C		Gravel	1.2

Total fines calculated from silt and clay. Water content calculated as weight of water/weight of solid, thus possible to have >100%.

Appendix Table D5. Grain Size and Water Content Results (%)

Station	Rep	Parameter	Result
R01-C		Sand	12.3
R01-C		Silt	56.7
R01-C		Water Content	113.79
R01-D		Clay	28.9
R01-D		Fines	87.6
R01-D		Gravel	1.1
R01-D		Sand	11.2
R01-D		Silt	58.7
R01-D		Water Content	108.46
R02-A		Clay	29.4
R02-A		Fines	88.1
R02-A		Gravel	0.0
R02-A		Sand	11.9
R02-A		Silt	58.7
R02-A		Water Content	131.80
R02-B		Clay	28.8
R02-B		Fines	88.3
R02-B		Gravel	0.3
R02-B		Sand	11.4
R02-B		Silt	59.5
R02-B		Water Content	118.90
R02-C		Clay	28.6
R02-C		Fines	87.1
R02-C		Gravel	1.0
R02-C		Sand	11.9
R02-C		Silt	58.6
R02-C		Water Content	106.79
R02-D		Clay	30.2
R02-D		Fines	88.1
R02-D		Gravel	1.4
R02-D		Sand	10.5
R02-D		Silt	57.9
R02-D		Water Content	97.46

Total fines calculated from silt and clay. Water content calculated as weight of water/weight of solid, thus possible to have >100%.

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-1A	1	2.474	69	-	-	12.7
C-1A	2	2.176	69	387.0509	1.2949	11
C-1A	3	1.828	70	1483.766	1.5391	9.2
C-1A	4	1.785	69	217.8955	1.4529	7.9
C-1A	5	1.742	73	1419.723	1.5619	10.1
C-1A	6	1.729	72	1375.497	1.6257	10.1
C-1A	7	1.73	74	1392.915	1.6472	13.2
C-1A	8	1.731	73	1399.353	1.7823	15
C-1A	9	1.732	75	1383.386	1.8171	19.2
C-1A	10	1.733	73	1389.735	1.744	12.2
C-1A	11	1.751	84	1398.562	1.7862	8.4
C-1A	12	1.779	86	1409.667	1.7452	9.3
C-1A	13	1.796	89	1411.95	1.6932	7.5
C-1A	14	1.81	95	1411.857	1.6328	10.4
C-1A	15	1.837	95	1421.827	1.6762	6.2
C-1A	16	1.877	91	1469.851	1.7031	10.9
C-1A	17	1.91	71	1031.318	1.7099	5.5
C-1A	18	1.942	70	577.6324	1.7324	3.2
C-1A	19	1.977	69	1020.651	1.661	4
C-1A	20	2.013	69	959.9427	1.7393	4.7
C-1A	21	2.046	69	462.6866	1.7496	5.1
C-1A	22	2.083	69	281.9818	1.7169	5.1
C-1A	23	2.118	68	3981.203	1.7482	10
C-1A	24	2.146	70	525.7227	1.6612	9.3
C-1A	25	2.157	69	263.9501	1.6052	7
C-1A	26	2.169	69	264.7705	1.6615	4.7
C-1A	27	2.199	68	637.946	1.668	5.1
C-1A	28	2.195	68	448.6917	1.6565	5.8
C-1A	29	2.166	68	519.7984	1.677	4.9
C-1A	30	2.108	68	332.3873	1.6441	4.3
C-1A	31	2.053	68	291.5365	1.6438	5.8
C-1A	32	2.018	69	338.4771	1.6617	5.5
C-1A	33	1.996	69	543.573	1.5832	16.2
C-1A	34	1.97	68	345.7961	1.5794	11.5
C-1A	35	1.952	69	1039.957	1.5205	9.1
C-1A	36	1.94	69	3391.608	1.4928	9.4
C-1A	37	1.931	69	236.2947	1.5033	8.8
C-1A	38	1.921	69	734.0466	1.4747	9.2
C-1A	39	1.92	69	234.6614	1.4926	7.6
C-1A	40	1.93	69	365.0464	1.5686	9.1
C-1A	41	1.939	69	237.1285	1.6447	15.4
C-1A	42	1.947	68	626.6495	1.7152	11
C-1A	43	1.952	69	238.1359	1.6495	11.4
C-1A	44	1.941	69	464.6876	1.672	11.6
C-1A	45	1.954	69	325.2871	1.6046	13.6
C-1A	46	1.976	69	3645.757	1.5777	6.3
C-1A	47	1.984	69	242.4835	1.6953	13.5
C-1A	48	2.002	69	662.4752	1.613	11
C-1A	49	2.026	68	247.1636	1.5745	12.7
C-1A	50	2.041	69	4025.642	1.5671	12.6
C-1A	51	2.059	68	326.9811	1.5687	14.5

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-1A	52	2.078	69	338.3263	1.5622	11.2
C-1A	53	2.094	68	363.7311	1.5201	15.4
C-1A	54	2.116	69	847.4168	1.5079	9.7
C-1A	55	2.134	69	580.3644	1.5549	8.8
C-1A	56	2.168	69	1392.421	1.5697	11.5
C-1A	57	2.185	69	756.841	1.5996	11.4
C-1A	58	2.19	68	267.9883	1.5841	11.8
C-1A	59	2.172	69	445.3557	1.5834	10.5
C-1A	60	2.198	68	268.8027	1.48	11.3
C-1A	61	2.247	69	581.0706	1.5912	11.5
C-1A	62	2.305	69	281.8882	1.7073	16.7
C-1A	63	2.328	69	579.5369	1.7386	10.5
C-1A	64	2.346	69	391.849	1.8211	28.8
C-1A	65	2.346	69	780.1796	1.7309	13.9
C-1A	66	2.34	68	5480.093	1.7616	12.3
C-1A	67	2.332	68	4599.606	1.6508	9
C-1A	68	2.317	69	306.4004	1.663	8.8
C-1A	69	2.293	69	279.9072	1.653	13.5
C-1A	70	2.289	69	315.6371	1.7192	10.4
C-1A	71	2.277	69	278.2938	1.7014	17
C-1A	72	2.311	69	511.6228	1.8005	18.7
C-1A	73	2.339	69	873.7393	1.8171	18.4
C-1A	74	2.347	68	4539.652	1.8429	13.6
C-1A	75	2.33	69	284.5975	1.7055	13.3
C-1A	76	2.325	69	593.5665	1.5404	57.3
C-1A	77	2.325	69	434.8233	1.5963	91.8
C-1A	78	2.335	69	387.4233	1.6356	37.7
C-1A	79	2.355	68	309.9908	1.6162	36.3
C-1A	80	2.37	69	466.8111	1.6343	39.6
C-1A	81	2.375	69	634.6873	1.5799	14.2
C-1A	82	2.375	68	342.367	1.5725	22.9
C-1A	83	2.363	69	339.4139	1.5754	52.1
C-1A	84	2.343	69	799.1132	1.5759	37.4
C-1A	85	2.327	69	477.6273	1.5417	26.2
C-1A	86	2.3	69	391.6894	1.6984	45.7
C-1A	87	2.192	69	267.4149	1.7038	18.4
C-1A	88	2	69	263.4352	1.4811	16.5
C-1A	89	1.803	69	275.6038	0.4973	1.2
C-1A	90	1.787	69	704.3753	-0.4502	0.2
C-1A	91	1.731	69	553.5657	-0.4674	0.1
C-1A	92	1.73	68	413.1837	-0.5101	0.3
C-1A	93	1.729	68	211.4467	-0.4692	0.2
C-1A	94	1.73	69	397.9756	-0.4352	0.3
C-1A	95	1.73	69	3314.176	-0.364	0
C-1A	96	2.817	69	344.2924	-0.1808	0
C-1B	1	2.599	69	-	-	0.4
C-1B	2	2.147	68	372.6137	0.4837	2.3
C-1B	3	2.14	69	462.0035	0.8725	6.2
C-1B	4	2.121	69	552.0562	1.0767	10
C-1B	5	2.12	68	3674.177	1.3064	8.6
C-1B	6	2.121	71	1402.778	1.4117	1.9

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-1B	7	2.123	92	1399.473	1.4937	4
C-1B	8	2.125	100	1396.189	1.6675	4.9
C-1B	9	2.127	100	1392.927	1.6732	4.9
C-1B	10	2.127	100	1388.381	1.7098	5
C-1B	11	2.127	100	1383.865	1.8009	5.1
C-1B	12	2.128	100	1389.034	1.7261	5
C-1B	13	2.128	100	1384.515	1.791	5.9
C-1B	14	2.129	96	1412.74	1.9606	5.9
C-1B	15	2.13	90	1399.474	1.9225	6
C-1B	16	2.13	82	1376.858	1.908	5.8
C-1B	17	2.129	85	1376.212	1.9023	5.8
C-1B	18	2.128	85	1366.731	1.7964	5.8
C-1B	19	2.128	88	1366.731	1.7005	4.9
C-1B	20	2.128	84	1366.731	1.6769	6.4
C-1B	21	2.129	75	1389.687	1.6352	8
C-1B	22	2.131	70	666.5624	1.6531	14.8
C-1B	23	2.134	69	468.8049	1.7095	15.7
C-1B	24	2.138	69	705.1451	1.7225	7.5
C-1B	25	2.142	68	432.9897	1.6012	10.1
C-1B	26	2.145	68	457.1611	1.4434	9.9
C-1B	27	2.147	69	401.5336	1.3336	8.9
C-1B	28	2.15	69	712.6284	1.2996	8.3
C-1B	29	2.151	69	502.3354	1.304	11.3
C-1B	30	2.153	68	625.5084	1.3412	13.1
C-1B	31	2.154	69	688.8392	1.5727	23.5
C-1B	32	2.154	69	394.3611	1.7953	14.4
C-1B	33	2.153	70	441.913	1.609	13.9
C-1B	34	2.154	69	484.9167	1.4916	11.4
C-1B	35	2.155	68	640.0356	1.4363	9.5
C-1B	36	2.155	68	409.5401	1.4885	10
C-1B	37	2.155	69	404.5429	1.4225	9.5
C-1B	38	2.156	69	922.5504	1.4144	11.1
C-1B	39	2.157	70	521.3923	1.5729	12.8
C-1B	40	2.157	69	577.201	1.6299	11.6
C-1B	41	2.157	68	4384.146	1.5375	8.6
C-1B	42	2.157	69	505.5074	1.5157	12.8
C-1B	43	2.157	68	450.5954	1.596	40.1
C-1B	44	2.158	68	599.1116	1.8151	32.4
C-1B	45	2.158	69	4094.876	1.8772	88.7
C-1B	46	2.158	69	1683.307	1.9924	90.9
C-1B	47	2.156	69	518.0202	1.8196	23.5
C-1B	48	2.157	69	445.4771	1.6676	12.5
C-1B	49	2.184	69	932.5362	1.7049	22.1
C-1B	50	2.183	69	724.7676	1.7695	20.2
C-1B	51	2.183	69	910.7217	1.7463	61.9
C-1B	52	2.183	69	425.3702	1.7228	27.9
C-1B	53	2.182	69	633.9337	1.7077	14.1
C-1B	54	2.183	69	595.3095	1.5865	10.5
C-1B	55	2.184	68	515.459	1.6051	9.3
C-1B	56	2.185	68	1276.285	1.7535	9.6
C-1B	57	2.187	69	556.2055	1.7942	9.2

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-1B	58	2.187	68	333.7912	1.7734	9.3
C-1B	59	2.186	69	4890.379	1.5886	9.8
C-1B	60	2.185	68	373.6959	1.6229	11.7
C-1B	61	2.185	69	381.1933	1.632	16.4
C-1B	62	2.185	69	428.6836	1.6233	18.6
C-1B	63	2.186	69	521.4695	1.5607	11.4
C-1B	64	2.186	69	542.1627	1.6716	10.9
C-1B	65	2.187	69	410.9358	1.7435	14
C-1B	66	2.187	68	1155.92	1.678	29.8
C-1B	67	2.187	69	4633.474	1.6867	28.3
C-1B	68	2.187	68	309.6856	1.6384	52.4
C-1B	69	2.187	69	421.2249	1.595	46.2
C-1B	70	2.188	68	532.749	1.6108	94.9
C-1B	71	2.189	69	501.8341	1.5986	48.9
C-1B	72	2.199	69	341.6188	1.4809	62.5
C-1B	73	2.208	69	744.186	1.5338	40.2
C-1B	74	2.214	69	447.544	1.5892	96.7
C-1B	75	2.237	69	401.4716	1.5559	35.6
C-1B	76	2.271	69	407.2082	1.5348	33.1
C-1B	77	2.299	69	1342.874	1.5462	28.4
C-1B	78	2.328	69	745.6758	1.4925	17.6
C-1B	79	2.361	69	586.2925	1.4621	18.2
C-1B	80	2.401	68	438.7793	1.4241	22.6
C-1B	81	2.451	69	457.1056	1.4397	29.5
C-1B	82	2.499	69	728.1469	1.4827	29.2
C-1B	83	2.538	69	733.1023	1.6065	22.9
C-1B	84	2.667	69	5260.355	1.6952	20.1
C-1B	85	2.983	68	6125.256	1.5123	4.7
C-1B	86	3.14	68	468.5169	0.8786	8.3
C-2A	1	4.328	68	-	-	6
C-2A	2	2.309	68	427.4343	0.9751	7.1
C-2A	3	1.844	69	242.2491	1.2677	5.9
C-2A	4	1.84	69	3593.75	1.2948	9.9
C-2A	5	1.836	68	317.812	1.3511	10
C-2A	6	1.826	69	412.9353	1.5749	8.2
C-2A	7	1.822	69	1362.752	1.6402	13.4
C-2A	8	1.82	69	489.6422	1.6303	10.9
C-2A	9	1.819	85	1418.877	1.464	9.3
C-2A	10	1.82	83	1414.141	1.5458	9.2
C-2A	11	1.82	94	1414.141	1.5426	8.2
C-2A	12	1.82	91	1403.238	1.4645	13
C-2A	13	1.822	92	1404.78	1.4629	7.7
C-2A	14	1.822	90	1410.217	1.5187	7.8
C-2A	15	1.822	94	1394.032	1.5511	11.9
C-2A	16	1.822	96	1415.695	1.5169	9.4
C-2A	17	1.824	89	1114.233	1.6142	12.8
C-2A	18	1.85	78	950.1797	1.698	6
C-2A	19	1.927	70	1270.27	1.7588	5.1
C-2A	20	2.022	69	695.5624	1.7644	5
C-2A	21	2.084	71	1101.48	1.7842	5.1
C-2A	22	2.117	70	1084.529	1.781	5

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-2A	23	2.129	68	1296.589	1.76	9
C-2A	24	2.147	68	1156.166	1.7028	5
C-2A	25	2.171	68	411.7982	1.7704	5.3
C-2A	26	2.178	69	573.6107	1.7791	4.8
C-2A	27	2.174	69	658.3889	1.7171	4.6
C-2A	28	2.153	68	441.913	1.7161	3.8
C-2A	29	2.122	69	342.7003	1.7028	9.8
C-2A	30	2.093	69	501.0773	1.651	11.9
C-2A	31	2.091	69	367.6807	1.6521	6
C-2A	32	2.102	69	1220.674	1.6898	5.4
C-2A	33	2.103	69	309.8571	1.6325	3.5
C-2A	34	2.088	69	379.4984	1.576	7.9
C-2A	35	2.047	69	547.7656	1.6323	9.9
C-2A	36	2.013	69	371.9512	1.759	9.8
C-2A	37	1.985	69	770.2755	1.7542	9.8
C-2A	38	1.983	70	586.3395	1.8117	10.4
C-2A	39	1.976	77	1192.517	1.7348	8.5
C-2A	40	1.97	72	1199.756	1.6974	9.6
C-2A	41	1.968	68	410.6845	1.6066	7.3
C-2A	42	1.97	69	401.8768	1.4363	6.5
C-2A	43	1.962	69	297.1827	1.4245	7.3
C-2A	44	1.957	69	239.3298	1.5045	10.4
C-2A	45	1.956	70	239.2075	1.5829	8.4
C-2A	46	1.96	68	441.2427	1.6036	11.6
C-2A	47	1.963	69	240.2105	1.4956	11
C-2A	48	1.977	68	571.8831	1.518	9.2
C-2A	49	1.989	71	1109.933	1.5815	9.7
C-2A	50	2	76	1164.822	1.6981	18
C-2A	51	2.008	79	1234.173	1.7093	17.4
C-2A	52	2.021	69	452.9359	1.6325	12.1
C-2A	53	2.029	69	248.4388	1.656	10.1
C-2A	54	2.042	68	429.7138	1.5977	10.9
C-2A	55	2.056	68	3532.646	1.6414	13.2
C-2A	56	2.068	69	252.4414	1.6298	14.2
C-2A	57	2.078	68	409.7003	1.6377	11.3
C-2A	58	2.088	69	403.7123	1.6446	9.1
C-2A	59	2.091	69	492.3475	1.5856	10
C-2A	60	2.092	86	889.4557	1.5436	9.9
C-2A	61	2.087	69	1515.614	1.5587	8.8
C-2A	62	2.085	69	767.3904	1.5951	11.5
C-2A	63	2.087	69	542.5007	1.6508	10.9
C-2A	64	2.096	69	484.9606	1.6088	9.5
C-2A	65	2.097	69	978.9916	1.5537	12.1
C-2A	66	2.095	68	395.1339	1.5071	10
C-2A	67	2.097	68	468.9177	1.6638	11.1
C-2A	68	2.097	69	355.3033	1.5921	12.7
C-2A	69	2.095	69	466.9044	1.6408	10.4
C-2A	70	2.088	69	349.3391	1.5338	13.2
C-2A	71	2.094	69	818.9285	1.3734	14.2
C-2A	72	2.092	70	255.2153	1.5105	12.7
C-2A	73	2.106	68	462.6537	1.49	14.5

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-2A	74	2.119	69	532.1447	1.5211	10.2
C-2A	75	2.138	69	3908.592	1.5307	6.2
C-2A	76	2.149	69	1024.797	1.503	7.4
C-2A	77	2.155	69	402.6532	1.5306	8.6
C-2A	78	2.155	69	870.004	1.5139	8.1
C-2A	79	2.15	69	461.1755	1.5457	7.5
C-2A	80	2.141	69	261.672	1.5354	8.5
C-2A	81	2.143	69	473.382	1.6527	9.3
C-2A	82	2.136	68	624.1964	1.6383	9.8
C-2A	83	2.142	68	552.489	1.7578	10.2
C-2A	84	2.139	69	1488.518	1.7774	9.3
C-2A	85	2.136	69	449.9684	1.7314	10.9
C-2A	86	2.115	68	277.6684	1.7634	10.6
C-2A	87	2.053	69	986.0711	1.6748	12.9
C-2A	88	1.948	69	789.623	1.599	13.5
C-2A	89	1.824	68	750	0.6856	5.5
C-2A	90	1.821	68	354.1423	-0.1947	-0.1
C-2A	91	1.82	70	408.8051	-0.2932	0.3
C-2A	92	1.82	69	545.4001	-0.3836	-0.1
C-2A	93	1.849	69	365.9937	-0.3253	0.2
C-2A	94	3.135	69	5837.988	-0.1992	0.1
C-2A	95	3.127	69	696.9022	-0.0284	0.2
C-2B	1	2.315	68			13
C-2B	2	1.833	69	609.5777	1.3934	7
C-2B	3	1.818	74	1407.121	1.3943	7
C-2B	4	1.815	74	1410.256	1.2911	7.3
C-2B	5	1.814	93	1426.1	1.3933	8.3
C-2B	6	1.813	97	1419.734	1.3798	15.2
C-2B	7	1.813	94	1430.939	1.4462	8.8
C-2B	8	1.814	96	1443.119	1.5565	22.1
C-2B	9	1.814	95	1460.547	1.4907	6.8
C-2B	10	1.814	100	1496.7	1.6441	13.5
C-2B	11	1.815	100	1485.27	1.8679	7.3
C-2B	12	1.815	100	1455.493	1.8093	5.4
C-2B	13	1.817	100	1439.778	1.5507	7.8
C-2B	14	1.818	100	1457.899	1.6303	8
C-2B	15	1.819	100	1513.311	1.734	8.3
C-2B	16	1.821	100	1177.117	1.7709	17.5
C-2B	17	1.824	87	1239.13	1.7722	16.1
C-2B	18	1.828	77	1055.427	1.7161	10.2
C-2B	19	1.848	79	1048.808	1.7349	19.2
C-2B	20	1.881	69	444.4707	1.6311	12
C-2B	21	1.922	69	392.8864	1.5548	11.3
C-2B	22	1.998	69	568.9066	1.6727	12.3
C-2B	23	2.061	68	809.1873	1.9621	24.8
C-2B	24	2.08	68	457.948	1.8798	21.1
C-2B	25	2.1	69	844.3908	1.7306	10.4
C-2B	26	2.122	69	361.0686	1.678	77.6
C-2B	27	2.136	70	365.9414	1.6921	74
C-2B	28	2.136	69	409.8235	1.6484	12.8
C-2B	29	2.146	68	464.804	1.7343	9.5

Appendix Table D6. Core Log Data

Station	Sect. Depth (cm)	ST (cm)	P-wave Amplitude	P-wave Velocity (m/s)	Density (g/cc)	Mag. Susc. (SI)
C-2B	30	2.152	69	819.1854	1.6815	11.1
C-2B	31	2.156	69	412.0795	1.5649	10.9
C-2B	32	2.166	69	568.952	1.5802	9.9
C-2B	33	2.174	69	431.1781	1.6359	12
C-2B	34	2.169	68	441.5717	1.644	10.1
C-2B	35	2.166	68	619.3881	1.5513	6.2
C-2B	36	2.168	69	1056.53	1.63	8.1
C-2B	37	2.173	69	661.0892	1.7291	10.9
C-2B	38	2.187	68	428.6554	1.6305	16.8
C-2B	39	2.213	68	468.6574	1.6262	12.5
C-2B	40	2.238	69	542.2825	1.8132	10.2
C-2B	41	2.248	69	875.7303	1.8623	11.9
C-2B	42	2.25	69	499.7779	1.7763	10.3
C-2B	43	2.25	69	707.1025	1.6854	15.2
C-2B	44	2.252	68	3902.946	1.6569	10.9
C-2B	45	2.252	69	1105.547	1.6944	10.6
C-2B	46	2.249	69	551.6311	1.7164	9.6
C-2B	47	2.247	69	493.0876	1.7638	12.2
C-2B	48	2.258	68	523.655	1.7297	12
C-2B	49	2.272	68	463.4843	1.7621	9.8
C-2B	50	2.283	69	550.5184	1.8075	9.7
C-2B	51	2.298	69	490.2923	1.7144	7.5
C-2B	52	2.314	69	611.0378	1.5941	9.4
C-2B	53	2.331	69	539.3336	1.7239	8.4
C-2B	54	2.341	69	835.4747	1.6721	9.9
C-2B	55	2.356	69	2351.297	1.7384	9
C-2B	56	2.37	69	396.852	1.7706	8.4
C-2B	57	2.382	69	388.1375	1.6786	8
C-2B	58	2.39	68	638.6959	1.6301	8.7
C-2B	59	2.385	69	3803.827	1.6072	10.2
C-2B	60	2.375	69	638.9561	1.5138	9.8
C-2B	61	2.278	69	671.5802	1.5574	6.7
C-2B	62	2.213	68	636.4682	1.3826	4.3
C-2B	63	2.125	69	510.5718	1.0354	10
C-2B	64	3.033	69	526.3798	0.8855	-0.4
C-2B	65	3.044	69	697.845	0.3871	-0.6