Sediment Quality Assessment Study at the B Street/Broadway Piers, Downtown Anchorage, and Switzer Creek, San Diego Bay

Phase I Draft Report

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1.0 Introduction

1.1 Background

Based on findings from the Bay Protection and Toxics Cleanup Program (BPTCP) completed in the 1990s, sediments in San Diego Bay in the vicinity of Switzer Creek, B Street/Broadway Piers, and the Downtown Anchorage (Figure 1-1) are known to be contaminated with anthropogenic chemicals; these include polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), chlorinated pesticides, and metals (Table 1-1). In addition, these sites have degraded benthic macroinvertebrate communities, and sediments from these sites were toxic to marine invertebrates in laboratory tests. As a consequence, these sites have been listed as impaired on the State of California's 303(d) list. In response to this determination of impairment, the San Diego Regional Water Quality Control Board (SDRWQCB) has initiated efforts to develop Total Maximum Daily Load (TMDL) calculations and cleanup plans for these sites. The primary objective of these efforts is to eliminate benthic community impairment; however, the SDRWQCB has stipulated that these efforts should also minimize human health and wildlife impacts resulting from the accumulation and possible biomagnification of contaminants in the food web.

Table 1-1. Summary of findings of the Bay Protection and Toxics Cleanup Program for the Switzer Creek, B Street/Broadway Piers, and Downtown Anchorage study sites.

Study Site	Degradation	Possible Contaminant Sources
Switzer Creek*	Elevated Chemistry Copper Low MW PAHs High MW PAHs Chlordane Total (ERMQ) Toxicity (sediment, porewater) Benthics	Shipyard facilities Shipping activities Stormwater PAH disposal Refuse disposal Air deposition
B Street/ Broadway Piers	Elevated Chemistry Copper Low MW PAHs High MW PAHs Chlordane Total (ERMQ) Toxicity (porewater) Benthic community	Shipping activities Stormwater Redistribution of adjacent sediments Air deposition
Downtown Anchorage*	Elevated Chemistry Metals Chlordane Total (ERMQ) Toxicity (sediment, porewater) Benthic community	Stormwater Airport runoff Redistribution of adjacent sediments Antifouling paints Air deposition

*These sites were classified by BPTCP as high priority sites for future study.
ERMQ = Effects Range Median Quotient, an indicator of pollution due to multiple contaminants.
References: Fairey *et al.* 1996, 1998; Marine Pollution Studies Laboratory 2003a.

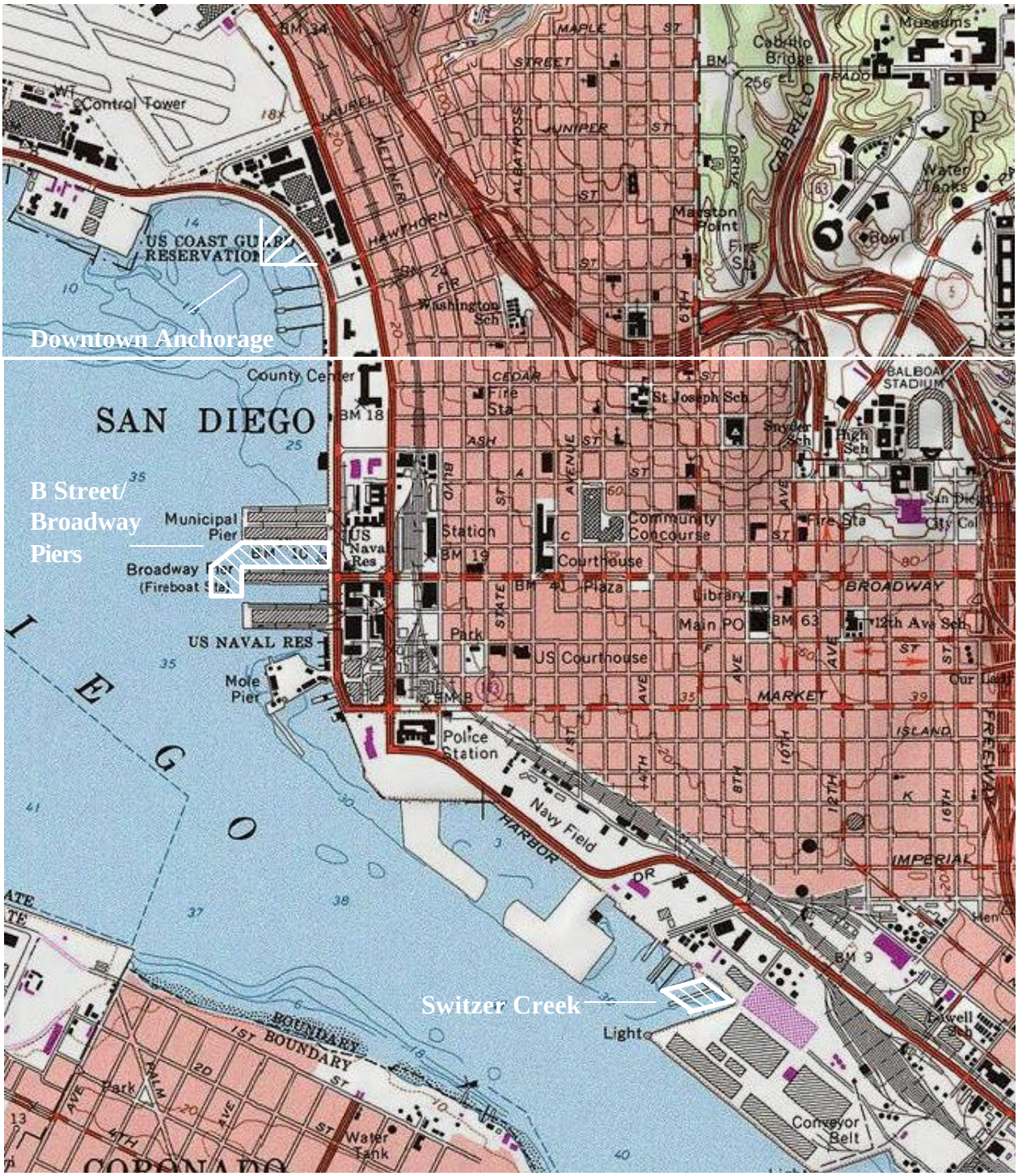

Figure 1-1. Switzer Creek, B Street/Broadway Piers, and Downtown Anchorage study sites (in crosshatch; RWQCB – San Diego).

1.2 Sampling and Analysis Plan

Development and implementation of TMDLs and cleanup plans requires information on the spatial extent and magnitude of degradation. A Sampling and Analysis Plan (SAP: Marine Pollution Studies Laboratory 2003a) was developed to provide guidance for conducting a spatial assessment of marine sediments at the three study sites, in order to provide information for Phase I, II and III of the TMDL and cleanup efforts. The SAP was largely based on the Sediment Assessment Plan prepared for the Chollas and Paleta Creek hotspots (Bay and Chadwick 2001). The SAP followed the general approach of the BPTCP (Fairey *et al*. 1996, 1998) and the Bight'98 regional survey (Bight 98 Steering Committee 2003) in measuring multiple indicators of sediment quality and using a weight-of-evidence approach to identify areas of impaired sediment quality. A weight-of-evidence approach increases the likelihood that the sediment quality at each sampling site will be accurately assessed, and allows the generation of hypotheses concerning relationships between contamination and effects.

The SAP includes site conceptual models that were developed from existing data to help clarify the potential linkages between sources, exposure pathways, and receptors. The three study sites share several characteristics including impaired sediments, stormwater inputs from shoreline sources, and shoreline industrial activities. In addition, the Switzer Creek study site receives considerable upland inputs from the creek itself. A generic conceptual model was developed for all study sites (Figure 1-2).

1.3 Phase I Sediment Assessment

This report focuses on Phase I of the TMDL and cleanup effort, which involves reassessment of sediment conditions at the three study sites. This sediment assessment study was designed to answer the following questions based on the potential receptors identified in the generic conceptual model:

- What is the spatial extent of contamination and adverse biological impacts in the sediments at each site?
- Which areas are most impaired?
- Are the sediment contaminants likely to enter the food chain?

These questions were answered by determining the spatial extent and magnitude of:

- Sediment contamination;
- Sediment physical characteristics;
- Toxicity in sediment, interstitial water (porewater), and at the sediment-water interface;
- Bioaccumulation of contaminants by a marine invertebrate; and
- Altered benthic community composition.

A wildlife risk assessment was also performed based on the results of bioaccumulation measurements.

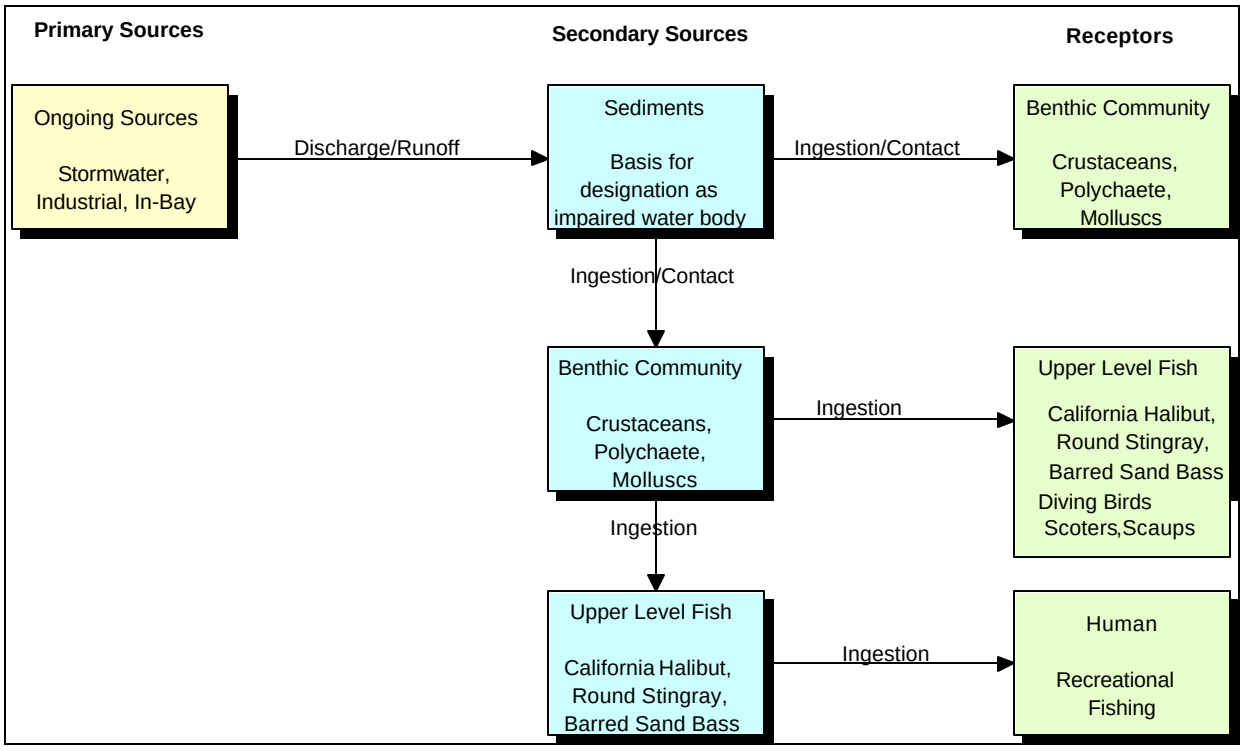

Figure 1-2. Generic site conceptual model for the Switzer Creek, B Street/Broadway Piers, and Downtown Anchorage study sites, showing the relationship between potential sources, exposure pathways, and receptors.

The relationship of the Phase I sediment assessment and proposed TMDL and cleanup activities is shown in Figure 1-3. Data from Phase I will be used to identify areas of greatest concern for detailed investigations to support the development of TMDLs and cleanup plans in Phases II and III. This three-phased approach was developed jointly by the University of California, Davis, the Southern California Coastal Water Research Project (SCCWRP), the City of San Diego, the San Diego Unified Port District, and the SDRWQCB in an effort to minimize duplication of effort and to provide comparable data throughout San Diego Bay.

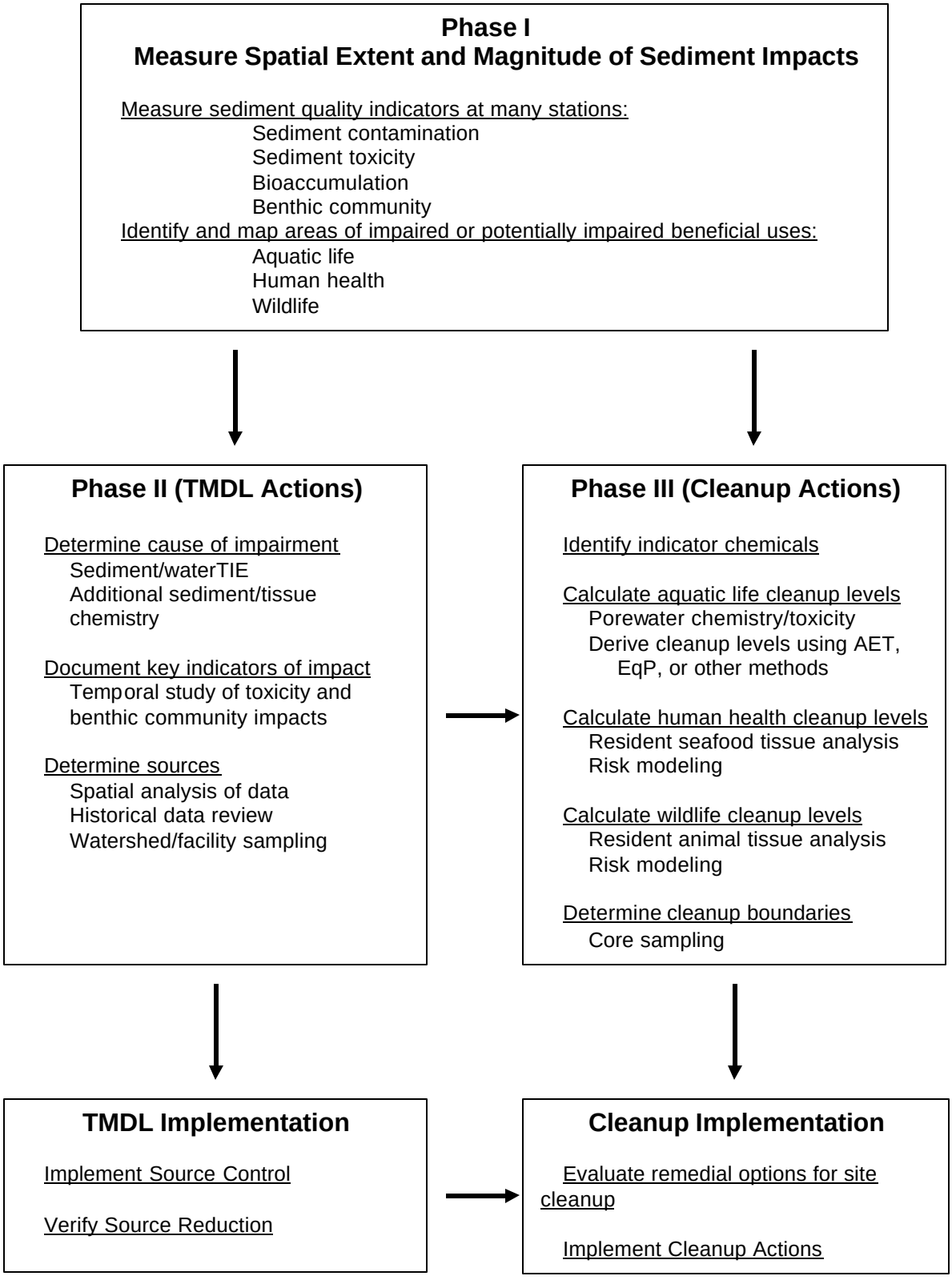

Figure 1-3. Relationship of study plan to potential subsequent TMDL and cleanup activities at the study sites.

2.0 Study Design

The conceptual approach of this study is based on three key assumptions. First, that the determination of biological impairment is best assessed through the measurement of biological effects associated with the study site (*e.g.*, toxicity, bioaccumulation, and benthic community degradation). Second, multiple indicators of sediment quality must be measured in order to provide a confident, weight-of-evidence assessment of impacts, because no single test or parameter is a consistently reliable, accurate, and predictive indicator of impairment. The final assumption is that there may be unknown site-specific factors in the study sites that will significantly affect causal relationships between contamination and effects, thus site-specific information is needed to accurately assess impacts.

Two sampling events were carried out in this study. First, sediment samples were collected and screened to confirm the location of reference stations (reference station reconnaissance). Second, sediment samples were collected at all study sites and confirmed reference stations for a comprehensive sediment assessment (definitive assessment).

In order to allow for temporal and regional trend analysis, methods equivalent to those used in the BPTCP (Fairey *et al*.1996, 1998) and Bight'98 regional surveys (Bight'98 Steering Committee 2003), and the Chollas and Paleta Creek studies (Bay and Chadwick 2001), were used whenever possible.

2.1 Reference Stations

As discussed in the SAP (Marine Pollution Studies Laboratory 2003a), 22 reference stations from past sediment studies in San Diego Bay were evaluated for use as reference stations in the current study. Six of these stations were subjected to reconnaissance sampling in 2003; sediments at these sites were sampled for toxicity testing (10-d amphipod (*Eohaustorius estuarius*) survival in sediment and 96-h sea urchin (*Strongylocentrotus purpuratus*) development at the sediment-water interface), chemical analyses, and benthic community analyses, as described in Section 3.0 (data are presented in Appendix A). Of the six sites tested, three were removed from further consideration because of degraded benthic community structure, toxicity, or similarity to another reference stations, and were replaced in the definitive study with three other stations from the original list of 22 possible reference stations. The six reference stations sampled in the definitive study, all originally from the Bight'98 study, were: 2229, 2238, 2243, 2433, 2435, and 2441. Characteristics of these sites are presented in Table 2-1. The selection of the six reference stations reflects the use of professional judgment to best satisfy the objectives of varied characteristics, multiple locations within the bay, low contamination, low toxicity, undisturbed benthos, minimal bioaccumulation, and stakeholder acceptance. Reference stations are shown on Figure 2-1; their exact locations are listed in Appendix B.

Table 2-1. Characteristics of reference station sediments selected for definitive sampling.

Station	Relative TOC content	Relative % fines	Relative location	Reference
2229	Low	Moderate	North-central bay	Marine Pollution Studies Laboratory (2003a)
2238	Moderately high	Moderately high	South bay	Current study (reconnaissance sampling)
2243	Moderately low	Moderately low	South-central bay	Current study (reconnaissance sampling)
2433	Moderate	Moderate	North bay	Current study (reconnaissance sampling)
2435	Low	Moderate	Near mouth of bay	Marine Pollution Studies Laboratory (2003a)
2441	High	Moderately high	Very near mouth of bay	Marine Pollution Studies Laboratory (2003a)

TOC = total organic carbon.

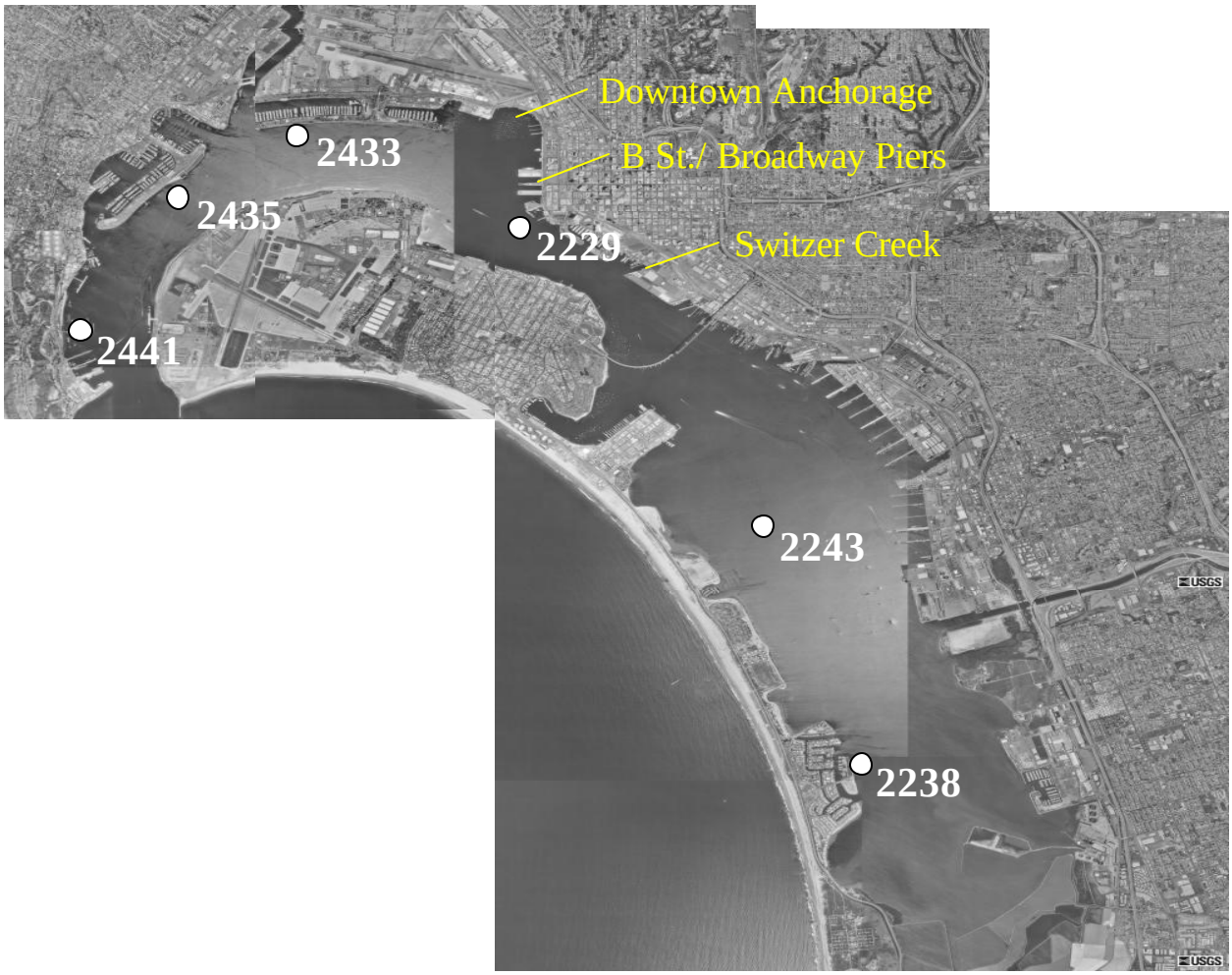

Figure 2-1. Reference station locations. Study sites are shown for reference.

2.2 Switzer Creek

The Switzer Creek (SWZ) study site (Figure 2-2) is located between the north side of the 10th Avenue Marine Terminal and the Cambell Shipyard Piers at the mouth of Switzer Creek. The total sediment surface area of the original hotspot designated by the SDRWQCB is approximately 28,000 m^2. Because a portion of this area is intended for development, a subsection of the original hotspot located between the 10th Avenue Marine Terminal and the southern-most Cambell Shipyard Pier was sampled for the current study. Based on the possible contaminant inputs and the shape of the hotspot area, six stations were arranged in a diamond-shaped grid pattern with one corner at the creek input; this allowed determination of contaminant and bioeffects gradients in three directions within the study site. The exact locations of the six Switzer Creek stations are listed in Appendix B. All six stations were sampled for sediment chemistry/characteristics, toxicity, and benthic community characterization; three of the stations were also sampled for bioaccumulation studies.

2.3 B Street/Broadway Piers

The B Street/Broadway Piers (BST) study site is located between the Broadway and B Street Piers and extends southwest approximately 100 m from the end of the Broadway Pier (Figure 2-3). The total sediment surface area at this site is approximately 48,000 m^2. The 12 sampling stations were arranged in an L-shaped grid. This design allows discrimination of spatial gradients of contamination, and biological effects measurements away from shore-based sources; it also allows discrimination of gradients from both downtown piers, and will help determine whether the contamination extends beyond the delimited area. Exact locations of the 12 B Street/Broadway Piers sampling stations are listed in Appendix B. All stations were sampled for sediment chemistry/characteristics and toxicity, along east-west and north-south gradients; five of these were also sampled for bioaccumulation studies, along an east-west gradient from the shore to the center of the bay.

2.4 Downtown Anchorage

The Downtown Anchorage (DAC) study site is located between Grape Street and the downtown anchorage in the vicinity of the U.S. Coast Guard Reservation (Figure 2-4). The total sediment surface area at the site is approximately 32,000 m^2. The nine sampling stations were arranged in a triangular grid within the site, allowing for discrimination of spatial gradients of contamination and toxicity away from shore-based sources, in north-south and east-west directions. Exact locations of the Downtown Anchorage sampling stations are listed in Appendix B.

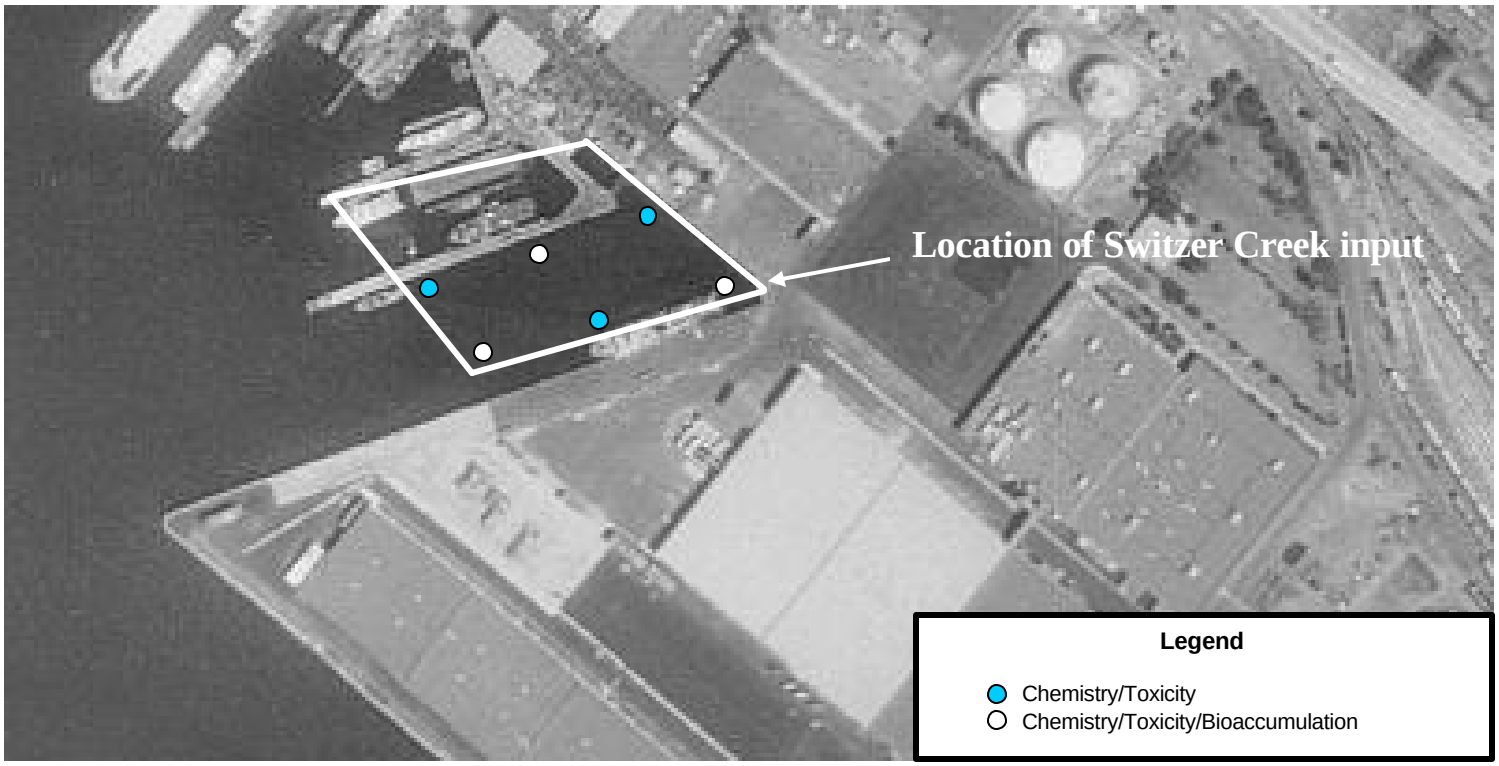

Figure 2-2. Switzer Creek study site with sampling stations.

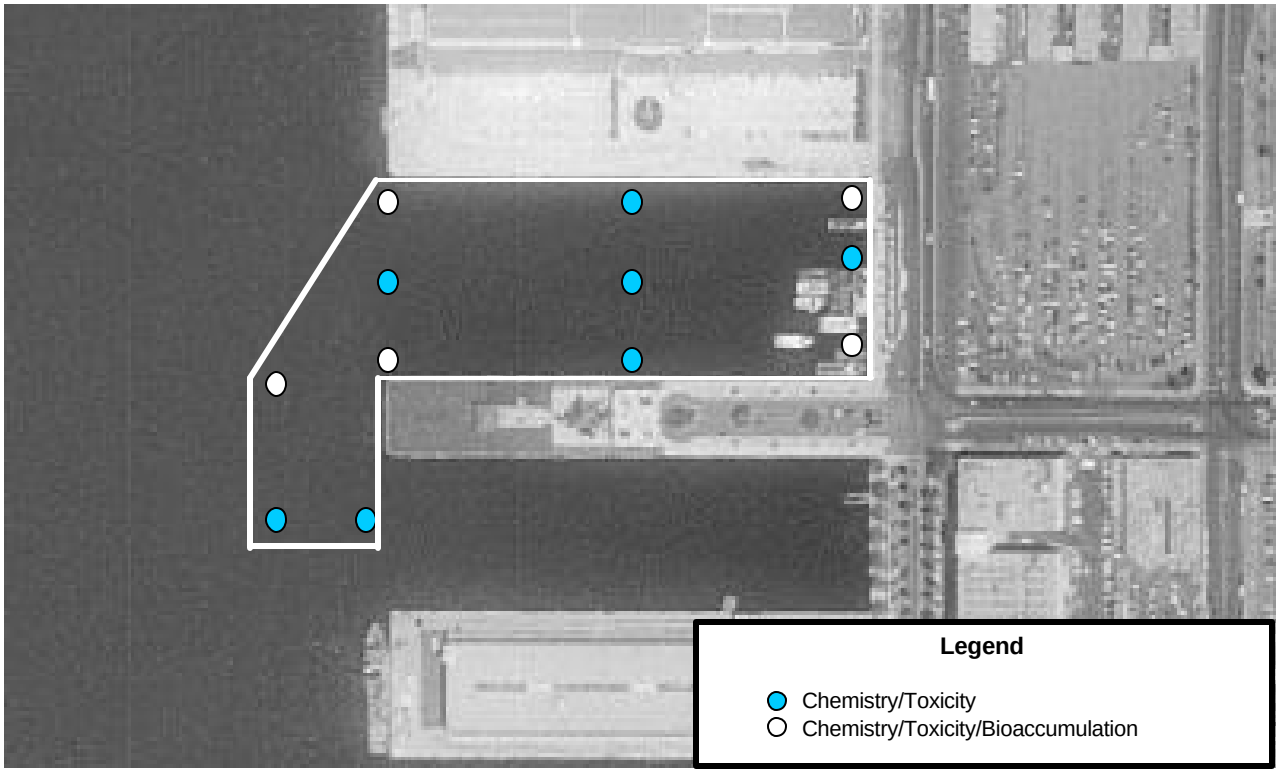

Figure 2-3. B Street/Broadway Piers study site with sampling stations.

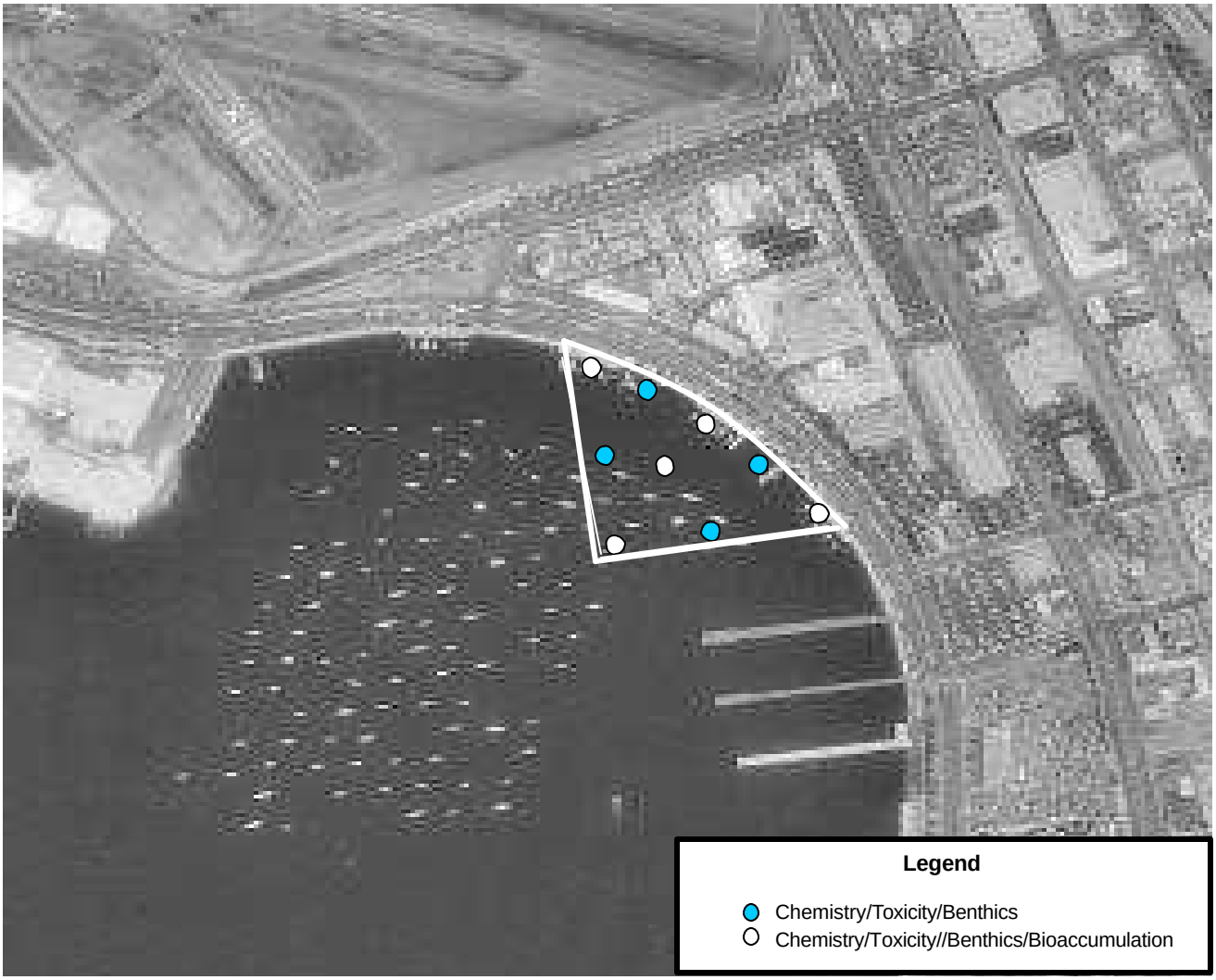

Figure 2-4. Downtown Anchorage study site with sampling stations.

3.0 Methods

3.1 Sample Collection and Preparation

Sediment samples were collected in February 2003 during reference station reconnaissance, and July 2003 for the definitive assessment. Sample collection and processing for analysis was performed according to methods outlined in the Quality Assurance Project Plan (QAPP: Marine Pollution Studies Laboratory 2003b) for this study. Sediment sampling was generally consistent with procedures used in the BPTCP and Bight'98 surveys (Fairey *et al*. 1996, 1998; Noblet *et al*. 2003). However, in the current study, surface sediments were defined as those within 5 cm of the sediment-water interface, whereas sediment was collected to a depth of 2 cm in the BPTCP and Bight'98 surveys. The collection of a 5-cm surface layer was implemented in response to concerns that the surficial flocculent layer at the study sites is subject to short-term disturbance via tidal action, and is considered more representative of long-term conditions in the bay than is a 2-cm deep surface layer.

3.2 Sediment Quality Indicators

Sediment quality indicators were selected to provide quantifiable measurement endpoints to determine if the pathways of exposure presented in Figure 1-2 could result in significant impacts to human or animal receptors. Up to four types of sediment quality indicators, as well as sediment characteristics necessary for indicator data interpretation, were measured at each station. Each indicator is complementary to the others with regard to assessing the presence of an impact and determining whether impacts are related to chemical contamination.

3.2.1 Sediment Chemistry and Characteristics

Sediment chemical measurements were used during reference station reconnaissance and the definitive assessment to determine the extent, spatial pattern, and relative magnitude of sediment contamination at each study site, to assess temporal trends through comparisons to prior measurements, and to indicate the potential bioavailability of sediment-associated chemicals. Sediment characteristics (grain size, organic carbon content) that can influence the bioavailability of contaminants, the response of toxicity test organisms, and the structure of benthic communities were measured to distinguish biological impacts (*i.e.*, toxicity or benthic community alteration) due to contaminants from those due to physical or non-anthropogenic factors.

All analyses were performed on composited, homogenized samples. Metals, PAHs, PCBs, and pesticides were measured at CRG Marine Laboratories, Inc. Analytes (listed in Appendix D) were the same as those measured in the Bight'98 survey (Noblet *et al*. 2003), and analytical methods were comparable to those used in that survey. Trace metals were measured by ICPMS, using EPA Method 6020, and chlorinated pesticides, PCBs and PAHs were measured by GCMS, using EPA Method 8270. Total organic carbon (TOC) for the reconnaissance study was measured by CRG Marine Laboratories, Inc. using Plumb (1981) and EPA Method 415.1. TOC for the definitive study was measured by TestAmerica Analytical Testing Corporation using Method 9060M. Grain size for the reconnaissance study was measured at AMEC Earth and

Environmental using the sieve and gravimetric method (Plumb 1981, ASTM 1990). Grain size for the definitive study was measured at the University of San Diego using a Beckman Coulter LS 200 particle size analyzer with a single size particle standard; deflocculation of fine particles was achieved with a 0.5% detergent solution (after Folk 1974). Contact information for participating laboratories is provided in Appendix C.

3.2.2 Toxicity Testing

Toxicity tests were used to document the extent, spatial pattern, and relative magnitude of acute toxicity and sublethal effects in sediments collected during reference station reconnaissance and the definitive assessment. Three types of standardized toxicity tests were performed:

- Acute toxicity in composited, homogenized sediments was assessed with the 10-day amphipod *Eohaustorius estuarius* survival test (for reconnaissance and definitive tests);
- Sublethal sediment toxicity was assessed by measuring the effects of porewater on sea urchin fertilization (for definitive tests); and
- Sublethal toxic effects of contaminated sediments on the water column were assessed with sediment-water interface (SWI) toxicity tests on intact sediment cores, using the sea urchin development test (for reconnaissance tests) or the mussel larval development test (for definitive tests).

Toxicity tests in sediment and porewater, and sea urchin development tests at the sediment-water interface, were performed according to methods outlined in the QAPP (Marine Pollution Studies Laboratory 2003b). Tests with mussel larvae were performed as outlined in MPSL Standard Operating Procedure (SOP) 2.9. Reference toxicant tests were performed with ammonia to demonstrate the ammonia tolerance of the individuals used in sample testing; these were synoptic with sample testing. Reference toxicant tests were also performed with cadmium, at a later date.

3.2.3 Benthic Community Composition

Benthic community composition in composite samples was measured in the reconnaissance and definitive assessments by counting individuals of the various benthic invertebrate infaunal taxa. Samples were prepared and sorted according to procedures outlined in the QAPP (Marine Pollution Studies Laboratory 2003b).

3.2.4 Bioaccumulation Tests

Bioaccumulation of contaminants in the clam *Macoma nasuta* was used to evaluate the potential for contaminant uptake and subsequent food chain transfer of organic chemicals and metals from the sediment. *Macoma nasuta* is native to and widely distributed in San Diego Bay, and actively ingests surface sediments. It is commonly used in dredged sediment studies (USEPA/USACOE 1998) because it provides adequate tissue volumes for trace-level chemical analysis.

Bioaccumulation tests were conducted for sediments from all reference stations and from a subset of study site stations (13 total; Appendix B) that span the expected gradient of contamination at the sites. Field triplicates were analyzed at one station for each study site.

Bioaccumulation exposure experiments were performed at AMEC Earth and Environmental (Appendix C) using standard procedures as outlined in their SOP (rev. 2-7-03) and USEPA guidelines (USEPA/USACOE 1998).

All trace metal and organic constituents measured in sediment samples were measured in clam tissues (with the addition of some Aroclors) after a 28-day exposure to sediments in the definitive study. Analyses were performed at CRG Marine Laboratories, Inc. Trace metals were measured by ICPMS, using EPA Method 6020; chlorinated pesticides, PCBs and PAHs were measured by GCMS, using EPA Method 8270; tissue lipid content was measured using the gravimetric method.

3.3 Data Analysis

Data analysis consisted of four procedures: evaluation of data quality, determination of impacts for each indicator, assessment of impairment at each station, and evaluation of spatial contamination patterns. These procedures are described below.

3.3.1 Data Quality Evaluation

Data from definitive testing for each sediment quality indicator were compared to quality assurance guidelines specified in the QAPP (Moss Landing Marine Laboratories 2003b). Relative percent difference (RPD) between laboratory sample replicates and matrix spike duplicates was calculated as the absolute value of the difference in replicate values divided by the mean of the two replicates; RPDs greater than 25% were noted. RPDs were not calculated for sample replicate pairs where both values were below 3 times the reporting limit. Surrogate and matrix spike recoveries were compared to acceptability criteria provided by the analytical laboratory. Measurements failing to meet data quality objectives were repeated wherever possible, and are discussed in Section 5.1.

3.3.2 Determination of Impacts

The data for each indicator were evaluated separately to determine the presence of significant impacts (*i.e.*, toxicity, contamination, bioaccumulation, or altered benthic community structure) at each station. A two-step approach was followed for each indicator: first, the data were compared to thresholds or criteria that would indicate whether impacts occurred; then, results were compared to reference station values (95% confidence limits about the mean) to determine whether impacts were greater than background conditions in the bay. This approach was based on the framework for evaluating sediment quality developed by the EPA for application in the St. Louis River Area of Concern (USEPA 2000).

Numerical relationships between contamination and effects were investigated to determine whether impacts were contaminant-related. These relationships will be used in subsequent activities to develop clean up standards and TMDL goals. Results of the bioaccumulation tests were used to address the question of possible food chain transfer of contaminants, and will provide some of the information needed to address human health impacts related to contamination at the sites.

3.3.2.1 Sediment Contamination

A conceptual framework for analysis of the sediment chemistry data is shown in Figure 3-1. The goal of this analysis was to determine whether overall sediment contamination levels are of potential biological concern for benthic communities. This determination was made by two methods: 1) comparing sediment concentrations to Effects Range Median (ERM) values, Consensus Based Guideline Values (CBGVs), and other guideline values where available (Table 3-1), and 2) calculating mean Sediment Quality Guideline Quotients (SQGQs) using the methods of Fairey *et al.* (2001). A SQGQ is the concentration of an individual chemical divided by its guideline value; the mean SQGQ is calculated by summing all of the SQGQs and dividing by the total number of analytes included in the summation. Calculation of the mean SQGQ value recommended by Fairey *et al.* (2001) incorporates several types of guideline values: ERMs (copper, zinc, total chlordane, dieldrin); PELs (cadmium, silver, lead); CBGVs for total PAHs (organic-carbon normalized, Swartz 1999) and total PCBs (MacDonald *et al.* 2000); and correlative guidelines (for DDTs). The calculated SQGQs were compared to the upper 95% confidence limit of the mean SQGQs for the six reference stations (a = 0.05). Exceedance of a guideline value or the SQGQ upper confidence limit would indicate impacted sediment.

Table 3-1. Sediment Quality Guidelines for analytes detected in definitive sediment chemistry analyses.

Analyte	Sediment Quality Guideline	Type of Guideline	Reference
Antimony	25 µg/g	ERM	Long *et al*. (1990)
Arsenic	70 µg/g	ERM	Long *et al*. (1990)
Cadmium	9.6 µg/g	ERM	Long *et al*. (1990)
Chromium	370 µg/g	ERM	Long *et al*. (1990)
Copper	270 µg/g	ERM	Long *et al*. (1995)
Lead	218 µg/g	ERM	Long *et al*. (1990)
Mercury	0.7 µg/g	ERM	Long *et al*. (1990)
Nickel	51.6 µg/g	ERM	Long *et al*. (1990)
Silver	3.7 µg/g	ERM	Long *et al*. (1990)
Zinc	410 µg/g	ERM	Long *et al*. (1990)
Total Chlordanes	6 ng/g	ERM	Long *et al*. (1990)
Total DDTs	100 µg/g organic carbon	correlative	Swartz *et al*. (1994)
Total PCBs	400 ng/g	CBGV	MacDonald *et al*. (2000)
Total PAHs	1800 µg/g organic carbon	CBGV	Swartz (1999)

All guidelines are applied on a dry weight basis.

Summed concentrations for DDTs, PCBs, chlordanes and PAHs were calculated using one-half the MDL for non-detected analytes. Chlordanes were summed based on guidance provided by USEPA (1995).

3.3.2.2 Sediment Toxicity

Sediment, porewater and SWI toxicity test results were evaluated using the conceptual framework shown in Figure 3-2. Toxicity test results were compared to response in the negative controls (test organism home sediment or laboratory seawater) with separate-variance t-tests (one-tailed, a = 0.05); those samples with a statistically significant difference that were also below the minimum significant difference (MSD; Phillips *et al.* 2001) values for the respective protocols were considered toxic. Toxic samples were evaluated using criteria for grain size and unionized ammonia, to discount these as confounding factors. The data were then compared to the lower 95% confidence limit of mean organism response for the six reference stations (a = 0.05) to determine whether the responses were different from background. Reference toxicant test data were evaluated using Toxcalc™ toxicity data analysis software (v. 5).

3.3.2.3 Benthic Community Composition

Evaluation of benthic community impacts followed the conceptual model presented in Figure 3-3. Two multi-metric indices of benthic community condition were calculated from the benthic data: 1) the Relative Benthic Index (RBI; Stephenson *et al*. 1994) used by BPTCP, which evaluates contaminant- and non-contaminant-related conditions; and 2) the Benthic Response Index (BRI; Smith *et al*. 2001) developed by SCCWRP for Bight 98, which only evaluates contaminant-related conditions (Table 3-2). Indices from the impacted stations were then compared to the reference station 95% confidence limit (a = 0.05) to determine if the observed benthic community degradation was site-specific.

The Relative Benthic Index (RBI) used in this study is a refined version of the benthic index first used in the first San Diego BPTCP report (Fairey *et al.* 1996). It combines the use of benthic community data with the presence of positive or negative indicator species to give a measure of the relative degree of degradation of the benthic fauna. The RBI can be customized to particular areas by selecting different indicator species. It does not require the presence of uncontaminated reference stations, and does not refer to data beyond that collected in each location. Often the evaluation of community degradation depends on comparisons to uncontaminated reference sites which are difficult to locate and vary for reasons that are unknown and unrelated to contamination.

Table 3-2. Indices used in evaluating benthic community data.

Benthic Index Method	Calculated Index Value	Assessment of Habitat
Relative Benthic Index (RBI) (Stephenson *et al*. 1994) Also used for BPTCP	0.60 – 1.00	Undegraded
	0.31 – 0.59	Transitional
	0.00 – 0.30	Degraded
Benthic Response Index (BRI) (Smith *et al*. 2001) Also used for Bight'98	< 31	Reference
	31 – 42	Response Level 1 (least impacted)
	42 – 53	Response Level 2
	53 – 73	Response Level 3
	> 63	Response Level 4 (most impacted)

Community Data

Four aspects of the community data were used in the RBI: the total number of species, the total number of mollusc species, and the number of crustacean species and individuals. An increase

in species richness is a well-accepted indicator of healthy environments (Diaz 1992). While a variety of indices have been developed to quantify species richness in absolute terms, for a study limited in spatial and temporal scale, as is often the case, total number of species is a highly realistic indicator of community richness. The number of mollusc species may also decrease as a result of disturbance.

Crustaceans are generally more sensitive to environmental contaminants than most other components of the infauna, particularly polychaetes. Speciose and numerically abundant crustacean faunas on the Pacific coast of the United States are generally only found in uncontaminated environments, making the number of crustacean species an important indicator of overall environmental health. An increase in the number of crustacean individuals is also indicative of relatively healthy environments, although sometimes one or two crustacean species can be abundant in disturbed habitats, but less so than for other major taxonomic groups, particularly polychaete worms.

Indicator Species

Five species were chosen as indicators of either highly disturbed or undisturbed benthic communities and habitats. Selection of indicator species was based on known responses to anthropogenic and other disturbances and related natural history such as life history traits and abundance patterns among the study stations. The two negative indicator species are highly opportunistic annelids which thrive in disturbed, polluted, or marginal environments, and are generally not found in less disturbed communities. The three positive indicator species are generally not found in polluted habitats and are characteristic of regions where anthropogenic and other severe disturbances do not play major roles in structuring communities. Each indicator species is discussed below.

Negative indicator species

Capitella capitata

The *Capitella* species complex is a cosmopolitan group that lives in a wide range of conditions: fouled or low oxygen, high organic matter and fine sediments. They are abundant around outfalls discharging biological wastes, and have a rapid (1 to 2 month) life cycle. *Capitella* are capable of surviving for days with little or no oxygen, and are often considered the best example of an opportunistic species (Reisch and Barnard 1960).

Oligochaetes

Oligochaetes are a poorly known group typically found in peripheral/disturbed habitats such as under decaying algae on beaches, and in fouled or low oxygen muds of back bays, estuaries, and harbors. They often occur in large masses to exclusion of all or nearly all other macrofauna. In SF Bay they may comprise 100% of the fauna where there is gross pollution (*i.e.*, large amounts of organic material from sewage). If oxygen levels are sufficient, and there is little toxic waste and high bacterial levels, oligochaete levels are high. Given sufficient oxygen, oligochaete densities become extremely high (Smith and Carlton 1975, Brinkhurst and Simmons 1968). They are well known indicators of relatively degraded freshwater ecosystems.

Positive Indicator Species

Acuminodeutopus sp.
Acuminodeutopus are found in shallow clean, well-oxygenated sands, and also in bay muds. They build tubes, and are early/first colonizers of ray pits and other relatively small-scale perturbations (Barnard 1961, Barnard and Reish 1959, VanBlaricom 1982).

Heterophoxus
Heterophoxus is a fossorial phoxocephalid amphipod that requires well-oxygenated, clean nearshore sands. They are shallow burrowers that occur in the top 1 cm of sand. Phoxocephalids, such as the similar *Rhepoxynius* spp., are considered to be very sensitive to sediment contaminants, and are commonly used in sediment bioassays.

Monoculodes sp.
Monoculodes is a fossorial oedocerotid amphipod that requires well-oxygenated, clean nearshore sands. They are shallow burrowers that occur at the sand surface/water interface. *Monoculodes* are carnivorous and therefore are probably active and sensitive to sediment surface quality (Mills 1962, Bousfield 1970, Bousfield 1996).

Calculation of Relative Benthic Index

For total fauna, number of mollusc species and number of crustacean species, the maximum and minimum values in these parameters over all the stations were determined. For each station, the total number of species, total mollusc species, and total number of crustacean species were then converted to the percentage of the total range for these parameters. The number of crustacean individuals at each station was similarly converted to a percentage of the total range, and added to the total fauna, mollusc, and crustacean species numbers. The community numbers thus represent four-sixths of the Relative Benthic Index for each station.

For the positive and negative indicator indices, the final index was weighted toward presence and absence of key indicator species, with abundance of each species given additional incremental weight. Accordingly, the abundance of each indicator species was transformed using a double square-root transformation to compress the range of values. For each species, the transformed abundance was converted to a percentage of the total range. The transformed values of the negative indicator species were summed and subtracted from the sum of the values for the positive indicator species.

The overall Relative Benthic Index was calculated by summing the values of the Total Fauna, Total Molluscs, Crustacean Species, and Indicator Species, and standardizing it to the total range. This resulted in a range in values from 0.00 (Most Impacted) to 1.11 (Least Impacted).

Ordinarily the RBI values range from 0 to 1.00; however, for this study the data from the recent sampling effort were combined with the data from the previous BPTCP survey completed in 1995. In order to counteract the "changing baseline" effect, the total ranges for the community parameters were not recalculated. This resulted in some values being greater than 1 where stations had more species or individuals than any of the stations from the previous study. It was

felt that this is an indication that some locations are "healthier" (based on the index) than they previously were, and that only using the data from the present study would not adequately represent this trend.

3.3.2.4 Bioaccumulation

Bioaccumulation data were evaluated following the conceptual model presented in Figure 3-4. Trace metal and organic compound concentrations measured in clam tissue at the end of bioaccumulation tests (at T_{28}) were compared to measurements made on a subsample of clams at the start of the tests (at T_0) to detect the presence of contaminant bioaccumulation; net bioaccumulation was calculated by subtracting the T_{28} value from the mean of the T_0 values (not including the T_0 QA replicate, R2), using one-half the detection limit for non-detected analytes. Tissue concentrations of clams exposed to study site sediments were then compared with tissue concentrations of clams exposed to reference sediments to determine if the elevated concentrations were above those characteristic of background conditions in the bay; stations where net bioaccumulation was greater than the 95% upper confidence limit (a = 0.05) for that of the reference stations were classified as having elevated site-specific concentrations of bioavailable contaminants.

Concentrations of selected chemicals detected in *Macoma nasuta* after 28-d laboratory exposures were used to calculate doses to a representative clam-eating avian receptor, the lesser scaup (*Aythya affinis*). Methods followed those described in the Naval Air Station North Island Bravo Pier Study prepared by SPAWAR (2001). Dose (D, in mg/kg/day) was calculated using the following equation:

D = [(sediment concentration x ingestion rate) + (clam tissue concentration x ingestion rate)]/body mass

The calculated dose numbers were compared to the BTAG Toxicity Reference Values (TRVs, Table 3-3) to assess risk to shallow-diving birds (HERD 2000); dose:low TRV ratios < 1 were considered to be acceptable bioaccumulation at reference stations. The TRV for lead was not considered in this evaluation because it is currently under review by HERD (personal communication, Michael Anderson, DTSC). The potential contribution of water-borne contaminants to total dose is likely negligible (personal communication, J. Takekawa, USGS); estimation of the magnitude of this contribution is beyond the scope of this project.

Table 3-3. Toxicity Reference Values (TRVs) used to evaluate risk to lesser scaup.

Analyte	low TRV	high TRV
Arsenic	5.5	22.01
Cadmium	0.08	10.43
Copper	2.3	52.26
Manganese	77.6	776
Mercury	0.039	0.18
Nickel	1.38	56.26
Selenium	0.23	0.93
Zinc	17.2	172

3.3.3 Determination of Impairment

A weight-of-evidence approach (Table 3-4) was used to develop an integrated assessment of the magnitude of impairment at each station. This approach used all of the available information (sediment chemistry, toxicity, benthic community assessment, and bioaccumulation) to determine whether sediment quality for use by aquatic species is likely to be impaired. Impairment is likely when contamination co-occurs with toxicity and/or degraded benthos. In situations where benthic community structure is degraded but no significant acute toxicity is observed, the potential for contaminants eliciting chronic effects should be considered.

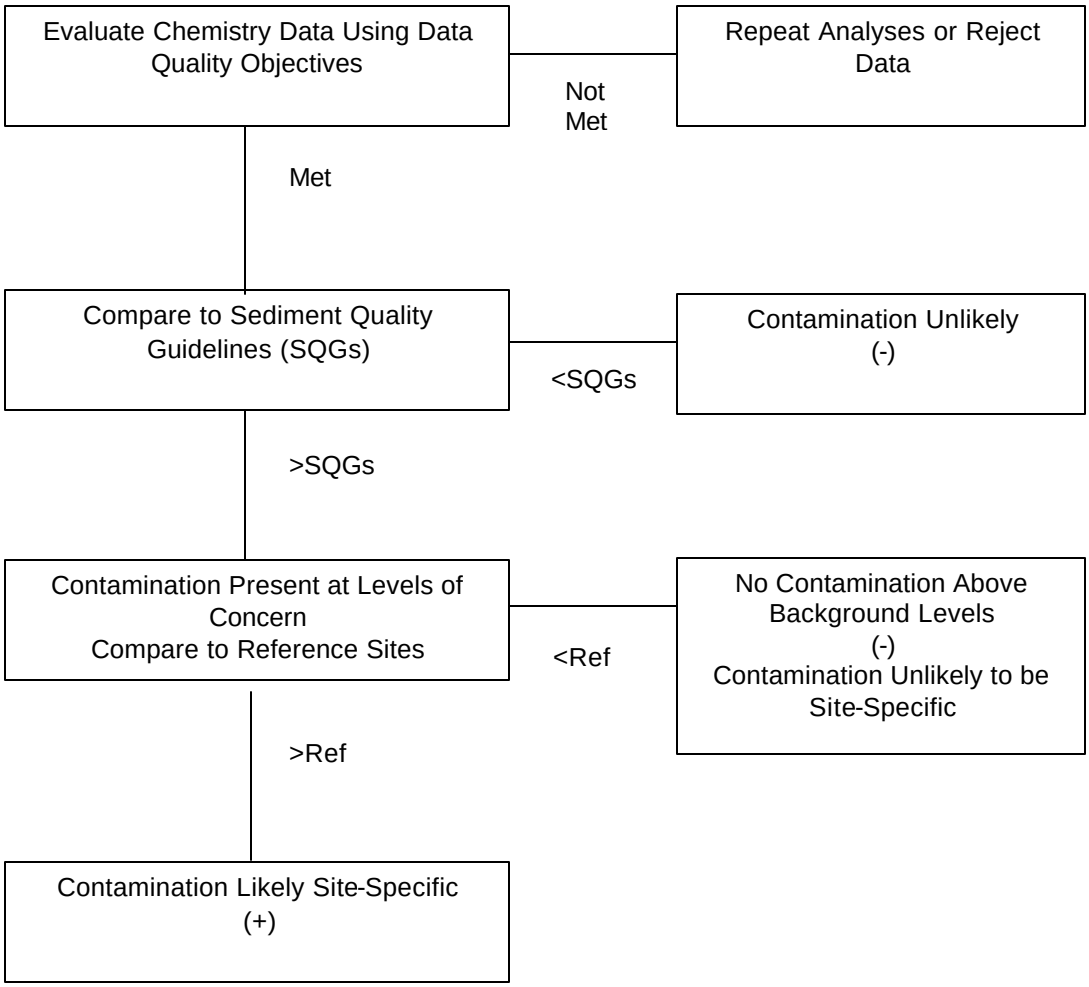

Figure 3-1. Procedure for assessing sediment chemistry data.

Symbols in parentheses indicate the classification of the station as either contaminated (+) or uncontaminated (-) relative to the potential for impacts on aquatic organisms or humans.

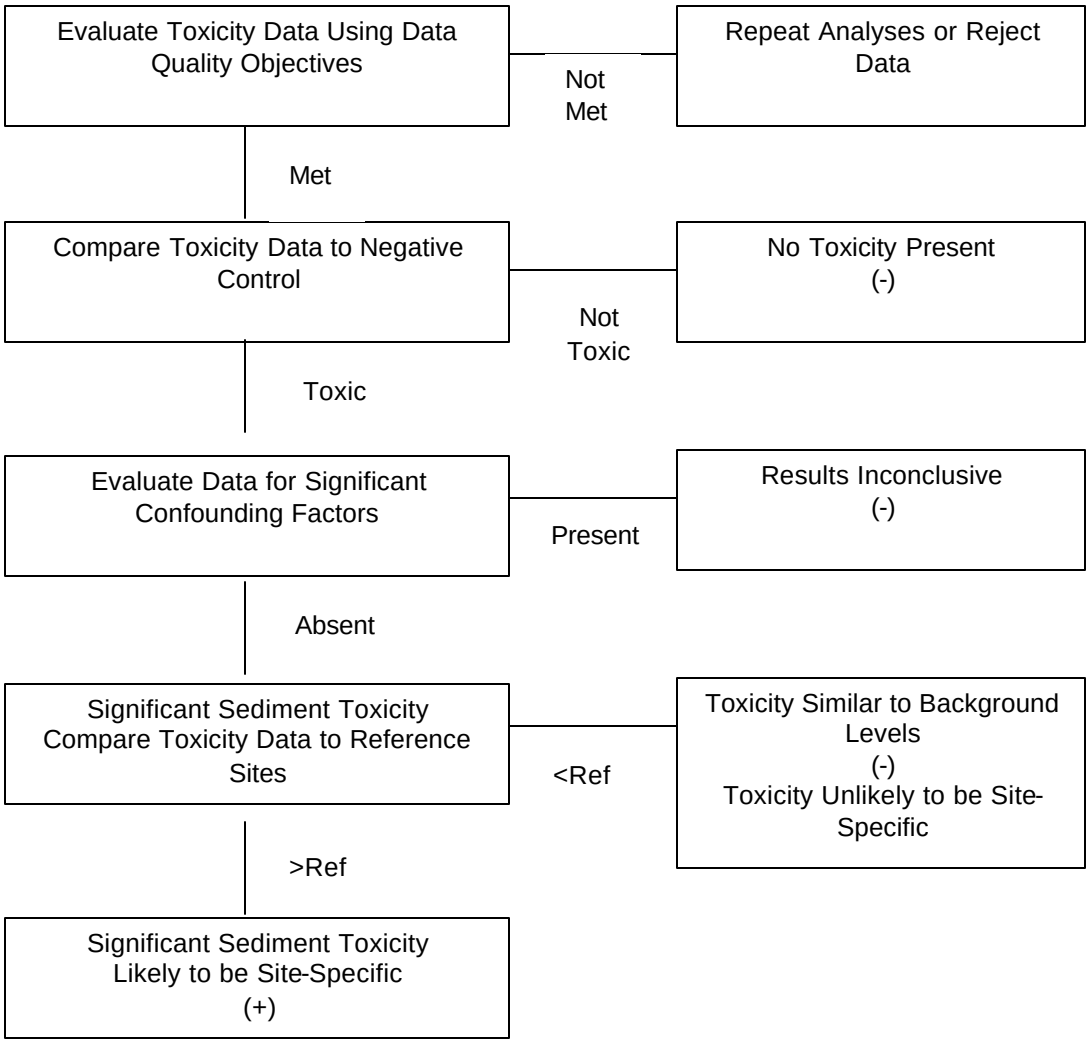

Figure 3-2. Procedure for assessing sediment toxicity data.

Symbols in parentheses indicate the classification of the station as either impacted (+) or unimpacted (-) relative to the potential for effects on aquatic organisms.

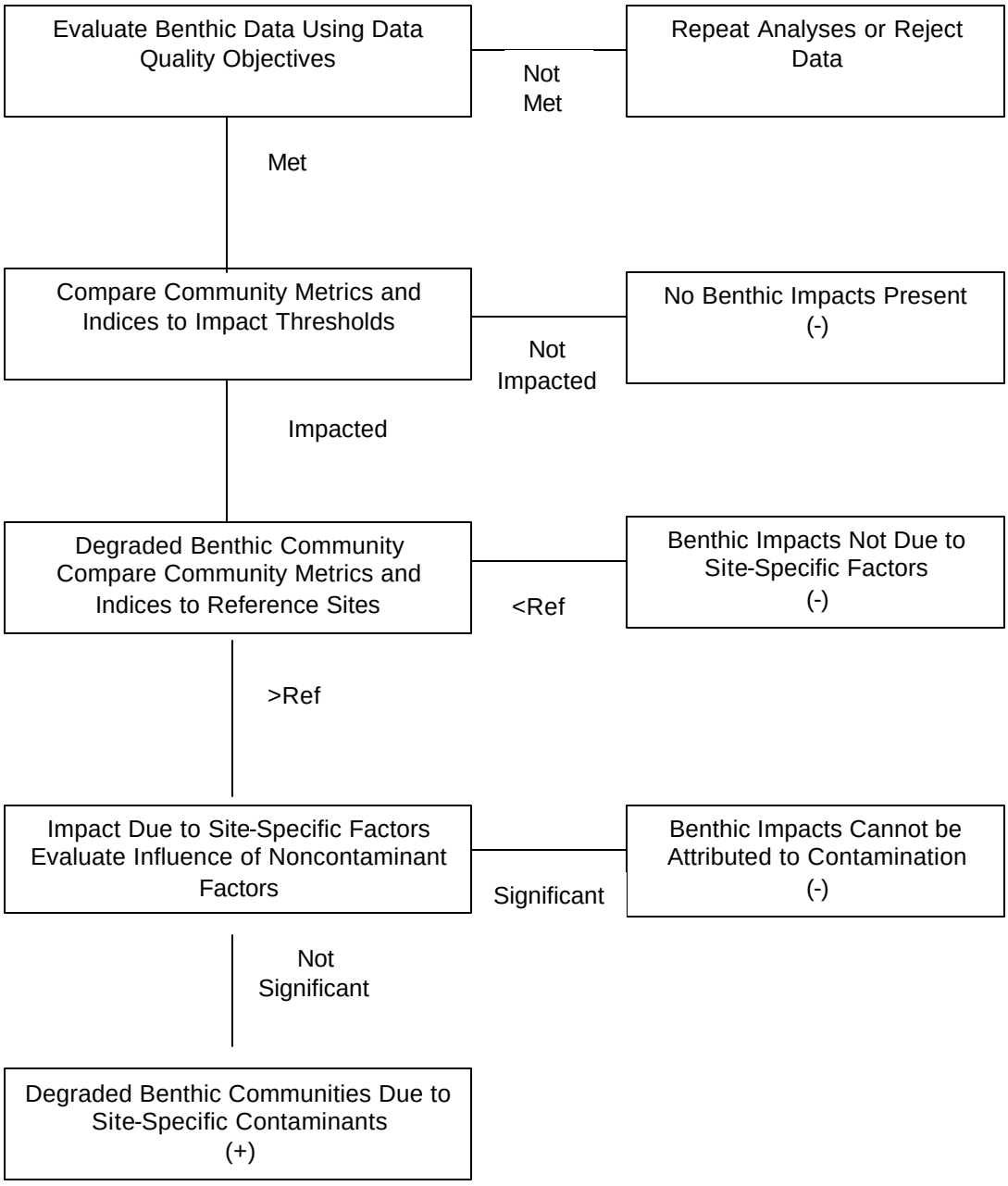

Figure 3-3. Procedure for assessing benthic community data.

Symbols in parentheses indicate the classification of the station as either impacted (+) or unimpacted (-) relative to the presence of benthic degradation.

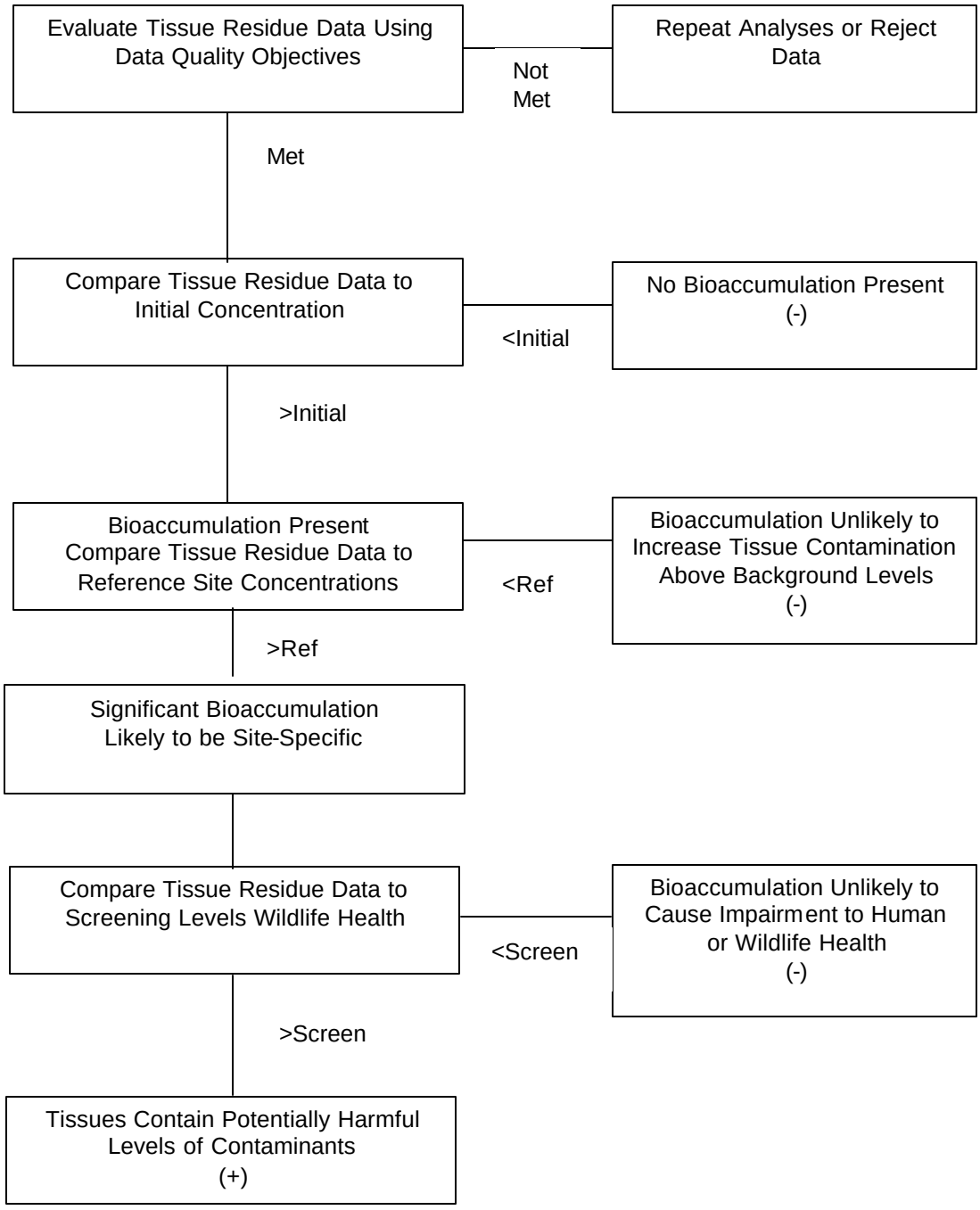

Figure 3-4. Procedure for assessing bioaccumulation data.

Symbols in parentheses indicate the classification of the station as either impacted (+) or unimpacted (-) relative to the presence of bioaccumulation.

Table 3-4. Decision matrix to assess sediment quality using the results of multiple indicators.

Sediment Contamination	Toxicity	Degraded Benthos	Bioaccumulation	Beneficial Use Impairment		Recommended Action
				Aquatic Life	Human/ Wildlife	
+	+	+	+	Highly Likely	Possible	Phase II studies Phase III studies Refine health assessment
+	+	+	-	Highly Likely	Unlikely	Phase II studies Phase III studies
+	-	+	-	Likely	Unlikely	Possible Phase II studies
+	+	-	-	Likely	Unlikely	Possible Phase III studies
+	-	+	+	Likely	Possible	Possible Phase II studies Possible Phase III studies
+	+	-	+	Likely	Possible	Refine health assessment
-	+	+	+	Possible	Possible	Possible Phase II studies
-	+	-	+	Possible	Possible	Evaluate confounding factors
-	-	+	+	Possible	Possible	Evaluate analyte list, consider chronic toxicity Refine exposure pathways
+	-	-	+	Unlikely	Possible	Refine health assessment
-	-	-	+	Unlikely	Possible	Refine exposure pathways
-	+	+	-	Possible	Highly Unlikely	Possible Phase II studies Evaluate Confounding Factors
-	+	-	-	Unlikely	Highly Unlikely	
-	-	+	-	Possible	Highly Unlikely	Evaluate analyte list, consider chronic toxicity
+	-	-	-	Unlikely	Unlikely	
-	-	-	-	Highly Unlikely	Highly Unlikely	No Further Action

See Figure 1-3 for description of Phase I and Phase II studies.

\+ Impact (above reference condition or screening level) present.

\- No impact present.

4.0 Results

4.1 Data Quality Evaluation

This section summarizes quality assurance data; except where noted, all quality assurance data are presented in Appendix E. A batch table for sediment and tissue chemistry is also presented in Appendix E. Data for deionized water blanks were not presented in Appendix E, as all were non-detects (see below).

4.1.1 Sample Handling

All sample collection, handling, preparation and transport occurred as specified in the QAPP (Marine Pollution Studies Laboratory 2003b). Samples were received intact and cool at all analytical and testing laboratories. TOC samples were reported by the analytical laboratory to be received out of hold.

4.1.2 Sediment Chemistry and Characteristics

4.1.2.1 Metals

Procedural blanks in deionized water yielded non-detect values for all metal analytes. Matrix spikes in sediment samples were performed for all analytes; all were within acceptable range, and all RPDs for matrix spike duplicates were less than 25%. Nine pairs of sample replicate metals values exceeded the 25% RPD; however, for two of these, one value was below 3x RL. Aluminum measurements were off-scale for 14 sediment samples (Appendix F).

4.1.2.2 Organics

Procedural blanks in deionized water yielded non-detect values for all organic analytes. Surrogate recoveries were measured in sediment; recoveries for PCB 112 and PCB 198 were below the acceptable range in one sample each (48% in BST08, and 30% in BST12, respectively); however, average recoveries for these surrogates were 75% and 82%, respectively. Other surrogate recoveries in sediment averaged from 75% to 104%, with the exception of d8-Naphthalene (50%); since this is a very volatile compound, the implications for its low recovery in sediment samples are minimal. Given that all sediment matrix spikes were within acceptable range, the slight acceptability deviations in surrogate recovery do not suggest underreporting of chemical contaminants. Surrogate recoveries were also measured in procedural blanks; all were within acceptable range except for one d8-Naphthalene value (100%). Twenty-three RPDs for matrix spike duplicates exceeded 25%. Sample RPDs in exceedance of 25% for replicate pairs numbered two and 19 for PCBs and PAHs, respectively; however, for two of these, one value was below 3x RL.

4.1.2.3 Total organic carbon

Blanks for TOC in laboratory water were all non-detects. Controls for TOC spiked into sediment were all within acceptable range for % recovery. Sample replicate data for TOC in sediment were all below 25% RPD.

4.1.2.4 Grain size

No quality assurance data were provided with grain size measurements.

4.1.3 Toxicity Testing

Sample receiving and storage conditions were acceptable. Bulk-phase sediments were refrigerated for ten days prior to testing with *Eohaustorius*. The first set of sediment-water interface cores was refrigerated for two days prior to testing; the second set was refrigerated six days. Porewater was extracted from bulk-phase sediments after six days of refrigeration, and refrigerated for two days prior to testing.

The plan for testing toxicity at the sediment-water interface was modified slightly from that outlined in the QAPP. Urchin larval development was initially planned for use in these tests; however, the results of the reconnaissance study indicated that mussel larval development would be more reliable in this application, and replaced the urchin larval development test.

Test acceptability criteria were met for all organisms. Water quality parameters measured during tests were within acceptable limits, with the exception of salinity in the *Eohaustorius* tests; most samples were 1 to 2 parts per thousand above the recommended salinity range for the test, but all were well within the salinity tolerance range of the organism. Temperature was within ± 2° C for all tests. Negative control performance was acceptable in all tests (Appendix G).

Reference toxicant tests were conducted as positive controls for toxicity tests. Reference toxicant tests with ammonia were conducted concurrently with the definitive tests, in order to determine ammonia sensitivity for these batches of organisms. Ammonia test concentrations (as NH_3) were selected to bracket published effects thresholds for unionized ammonia. Unionized ammonia concentration in the *Eohaustorius* test ranged from 0.26 to 1.02 mg/L; although the two highest concentrations exceeded the published NOEC of 0.8 mg/L (USEPA 1994), the amphipods exhibited no mortality. *Strongylocentrotus* fertilization exhibited a dose-response in concentrations of unionized ammonia from 0.18 mg/L (the NOEC; 79% fertilization) to complete lack of fertilization at 1.13 mg/L; the EC_{50} for this test was 0.56 mg/L. *Mytilus* development also exhibited a dose-response in concentrations of unionized ammonia from 0.0174 mg/L (the NOEC; 88% normal development) to a complete lack of normal development at 0.201 mg/L; the EC_{50} for this test was 0.086 mg/L. Cadmium reference toxicant tests for *Eohaustorius* and *Mytilus* were performed after the definitive tests, and produced EC_{50} values of 0.086 and 0.557 mg/L, respectively. These EC_{50} values were within the control chart confidence limits (2 standard deviations), indicating that test organisms responded to the toxicant in a manner consistent with previous tests. A metal-based reference toxicant test was not performed with urchin fertilization.

4.1.4 Benthic Sorting

Sorting and identification of benthic infauna were reported to occur as outlined in the QAPP.

4.1.5 Bioaccumulation Testing

Macoma exhibited acceptable control survival after 28 days, ranging from 77 to 91% among the three replicates. Mean temperature, dissolved oxygen, and salinity values met the water quality criteria for all samples tested. On a few occasions, temperature and dissolved oxygen fell outside of their acceptable ranges. When this occurred, flow rates and aeration were immediately corrected. Transient temperature spikes of 2 to 3 hours duration occur on rare occasions, when new test water is added to the system. For this test batch, temperatures quickly returned to the specified test temperature.

4.1.6 Tissue Chemistry

4.1.6.1 Metals

Procedural blanks in deionized water yielded non-detect values for all metal analytes. Matrix spikes in tissue samples were performed for all analytes; all were within acceptable range, and all RPDs for matrix spike duplicates were less than 25%. Five pairs of sample replicate metals measurements exceeded 25% RPD.

4.1.6.2 Organics

Procedural blanks in deionized water yielded non-detect values for all organic analytes. Surrogate recoveries were measured in tissue and in procedural blanks; all were within acceptable range. Matrix spikes in tissue samples were performed for selected analytes; all were within acceptable range. All RPDs for matrix spike duplicates were less than 25%. Two pairs of sample replicate PAH measurements exceeded 25% RPD.

4.1.6.3 Lipids

Lipids were non-detectable in procedural blanks with deionized water. One pair of sample replicate lipid analysis values exceeded 25% RPD; however, one of the values was less than 3x RL.

4.2 Determination of Impacts

4.2.1 Sediment Contamination

PCBs were detected in sediments from all Switzer Creek stations (80.1 to 576.3 ng/g dw total detectable congeners) and all Downtown Anchorage stations (6.7 to 766.8 ng/g dw total detectable congeners) (Appendix F). Total PCBs (summed to include non-detected analytes) exceeded the CBGV of 400 ng/g dw at three stations: SWZ003, 630; DAC02, 473.6; DAC03,

844.4 (Table 4-1). PCBs were not detected in sediments from any of the reference stations, indicating that PCB contamination at the study sites is likely site-specific.

DDT or its breakdown products were detected in sediments from all Switzer Creek stations (12.6 to 43.0 ng/g dw total detectable analytes), and from five Downtown Anchorage stations (15.0 to 29.9 ng/g dw total detectable analytes) (Appendix F). No stations exceeded the CBGV for total DDTs (summed to include non-detected analytes) (Table 4-1). Chlordanes were detected at three Switzer Creek stations (ng/g dw total detectable analytes): SWZ01, 6.4; SWZ05, 13.6; SWZ06, 12.4. When summed to include non-detected analytes, total chlordanes at these three sites exceeded the ERM of 6.0 ng/g dw (Table 4-1). Pesticides were not detected at any of the reference stations, indicating that DDT and chlordane contamination at the study sites is likely site-specific.

All PAHs were detected in sediments from at least one station, and many were ubiquitous (Appendix F). PAHs were detected in sediments from all stations (in ng/g dw total detectable analytes): Switzer Creek, 6133.0 to 15328.2; B Street/Broadway Piers, 2726.6 to 60210.2; Downtown Anchorage, 2464.5 to 5501.5; reference stations, 154.3 to 1372.6. Total PAHs (summed to include non-detected analytes) at two B Street/Broadway Piers stations exceeded the CBGV of 1800 µg/g dw: BST07, 2122.51; and BST09, 1938.51 (Table 4-1). Twenty-five sites (including BST07, BST09 and 2229) had PAH quotients in exceedance of the 95% upper confidence limit of the reference station PAH quotients (Table 4-1), indicating that PAH contamination at these sites is likely site-specific.

With few exceptions, all metals were detected at all stations (Appendix F). Antimony concentration exceeded the ERM at SWZ06 (53.7 mg/kg); this concentration, as well as those at two reference stations (2238 and 2241) and most other stations, exceeded the 95% upper confidence limit (0.174) for the reference stations. Mercury concentration exceeded the ERM at 13 stations across all study sites, and was detected at the following concentration ranges (in mg/kg dw): Switzer Creek, 0.40 to 0.72; B Street/Broadway Piers, 0.50 to 5.17; Downtown Anchorage, 0.46 to 1.24; reference stations, 0.16 to 0.35. All study site stations and one reference station (2238), had mercury concentrations in exceedance of the 95% upper confidence limit for reference station values (0.33 mg/kg).

SQGQs for all study site stations except BST11 were in exceedance of the upper 95% confidence limit for the reference stations (Table 4-1), indicating that these stations have elevated chemical mixtures relative to reference stations. One reference station (2238) also slightly exceeded this SQGQ upper limit.

Table 4-1. Calculated summations, quotients and confidence intervals for definitive sediment organic chemistry analyses.

Station	Total PCBs (ng/g)	PCBs > CBGV (400)	Total DDTs (µg/g oc)	DDTs > CBGV (100)	Total Chlordanes (ng/g)	Chlordanes > ERM (6)	Total PAHs (µg/g oc)	PAHs > CBGV (1800)	PAH Quotient	PAHQ > 95% UCL (0.080)	SQG Quotient	SQGQ > 95% UCL (0.172)
SWZ01	59		1.9		6.9	x	268		0.149	x	0.412	x
SWZ02	109		2.0		1.5		147		0.081	x	0.289	x
SWZ03	630	x	3.1		1.5		625		0.347	x	0.469	x
SWZ04	209		1.4		1.5		383		0.213	x	0.417	x
SWZ05	105		1.0		14.1	x	308		0.171	x	0.551	x
SWZ06	177		1.5		12.9	x	315		0.175	x	0.534	x
BST01	15		0.2		1.5		878		0.488	x	0.376	x
BST02	15		0.2		1.5		987		0.548	x	0.305	x
BST03	15		0.3		1.5		675		0.375	x	0.223	x
BST04	15		0.2		1.5		603		0.335	x	0.402	x
BST05	15		0.3		1.5		633		0.352	x	0.228	x
BST06	15		0.4		1.5		386		0.215	x	0.208	x
BST07	15		0.1		1.5		2123	x	1.179	x	0.464	x
BST08	15		0.3		1.5		672		0.373	x	0.295	x
BST09	15		0.4		1.5		1939	x	1.077	x	0.292	x
BST10	15		0.4		1.5		224		0.124	x	0.177	x
BST11	15		0.4		1.5		267		0.148	x	0.170	
BST12	15		0.3		1.5		233		0.129	x	0.237	x
DAC01	257		0.7		1.5		141		0.078		0.410	x
DAC02	474	x	1.4		1.5		140		0.078		0.551	x
DAC03	844	x	1.3		1.5		189		0.105	x	0.619	x
DAC04	338		2.2		1.5		116		0.064		0.352	x
DAC05	377		1.8		1.5		220		0.122	x	0.342	x
DAC06	65		0.2		1.5		168		0.094	x	0.290	x
DAC07	164		0.2		1.5		154		0.086	x	0.284	x
DAC08	27		0.2		1.5		163		0.091	x	0.225	x
DAC09	15		0.2		1.5		160		0.089	x	0.239	x
2229	15		0.7		1.5		200		0.111	x	0.149	
2238	15		0.3		1.5		14		0.008		0.190	x
2243	15		0.8		1.5		55		0.031		0.137	
2433	15		0.5		1.5		136		0.076		0.133	
2435	15		1.0		1.5		78		0.044		0.091	
2441	15		0.2		1.5		57		0.031		0.168	

For replicated stations, only data from the first replicate are shown.

4.2.2 Sediment Toxicity

No porewater samples were toxic when tested with the urchin fertilization test (Table 4-2; Appendix G); fertilization rates were statistically significantly lower than the control response at all but one station, but fertilization rates for all stations were greater than the %MSD value. Fertilization rates at all but two stations (BST12 and 2441) were greater than the 95% lower confidence limit for the reference sites, indicating that the response of gametes to porewater at most study site stations is similar to that at the reference stations.

No samples were toxic to mussel larvae at the sediment-water interface (Table 4-2; Appendix G); the percent of normal surviving larvae was statistically significantly lower than the control response at four stations, but greater than the %MSD at all stations. Percent normal surviving larvae at all but one station (2435) was greater than the 95% lower confidence limit for the reference stations, indicating that the response of larvae to SWI exposure at most study site stations is similar to that at the reference stations.

Eohaustorius survival rates in sediment samples were statistically significantly different from that of the control at 20 stations; three of these stations (SWZ04, SWZ06, DAC04) also exhibited survival rates less than the %MSD, and were considered toxic (Table 4-2, Appendix G). None of these samples had unionized ammonia concentrations in the overlying water that exceeded the no-observed effect concentration (NOEC) of 0.8 mg/L (USEPA 1994), indicating that ammonia was not a confounding factor in the toxicity test results. All sediment samples were well below 70% clay (Appendix G), indicating that grain size was not a confounding factor (Tay *et al*. in prep.). Nineteen stations (including these three) exhibited *Eohaustorius* survival rates less than the 95% lower confidence limit of the reference stations.

4.2.3 Benthic Community Composition

All stations were considered equivalent to Reference conditions based on calculation of the Benthic Response Index (BRI), so no 95% confidence limits were calculated (Table 4-3). In contrast, Relative Benthic Index (RBI) calculations indicated 13 study site stations where benthic communities were transitional or degraded. The two degraded stations were SWZ01 and SWZ02, and were two of the three stations where fines content exceeded 90%; the 11 transitional stations were distributed across all study sites (Table 4-3). The RBI for these 13 stations was less than the lower 95% confidence limit for the reference sites, indicating that community degradation is site-specific. All benthic community composition data are presented in Appendix H.

Table 4-2. Summary of definitive toxicity test results.

Station	*Eohaustorius* survival in whole sediment			Mussel larval development at SWI			Sea urchin fertilization in porewater		
	significant t-test (a)	< MSD (0.735)	< lower 95% CL (0.91)	significant t-test (a)	< MSD (0.65, 0.68) (b)	< lower 95% CL (0.63)	significant t-test (a,d)	< MSD (0.65)	< lower 95% CL (c,d)
SWZ01	x		x				all		
SWZ02	x		x				all		
SWZ03	x		x				all		
SWZ04	x	x	x				all		
SWZ05	x		x				all		
SWZ06	x	x	x				all		
BST01							all		
BST02	x		x	x			25/50		
BST03	x		x				all		
BST04							all		
BST05	x		x				25/50		
BST06				x			all		
BST07	x		x				all		
BST08							all		
BST09	x		x				all		
BST10	x						all		
BST11							all		
BST12							all		100
DAC01	x		x				all		
DAC02	x						all		
DAC03			x				25/50		
DAC04	x	x	x				all		
DAC05			x				25/50		
DAC06							all		
DAC07	x		x				all		
DAC08	x		x				all		
DAC09	x		x				all		
2229							all		
2238	x		x				50		
2243							25		
2433	x			x			50		
2435				x		x			
2441							50/100		all

(a) Calculated using paired-sample t-test, one-tailed, a =0.05. P-values reported in Appendix H.
(b) Mussel tests were run on two days and therefore have two MSD values.
(c) CL: 100% porewater, 0.67; 50% porewater, 0.69; 25% porewater, 0.72.
(d) Value indicates porewater concentration (25, 50, 100%, or all).

Table 4-3. Summary of definitive benthic community measures.

Station	Calculated RBI	Station Assessment (a)	RBI < 95% LCL (0.81)	Calculated BRI	Station Assessment (b)	% fines	TOC (mg/dry kg)
SWZ01	0.11	D	x	28.8	R	96.1	20600
SWZ02	0.09	D	x	27.9	R	99.8	21600
SWZ03	0.86	U		27.5	R	92.6	14000
SWZ04	0.35	T	x	25.0	R	74.7	24200
SWZ05	0.31	T	x	29.1	R	46.7	14500
SWZ06	0.46	T	x	24.5	R	57	19000
BST01	0.71	U	x	20.3	R	69.8	17500
BST02	0.57	T	x	19.3	R	69.1	12500
BST03	0.98	U		19.0	R	62.2	9190
BST04	0.70	U	x	16.4	R	68	19200
BST05	0.68	U	x	23.2	R	64.6	10100
BST06	0.83	U		13.5	R	61.6	7650
BST07	0.76	U	x	23.3	R	70.9	20900
BST08	0.81	U		21.1	R	67.4	11700
BST09	0.74	U	x	14.2	R	54.4	7280
BST10	0.82	U		20.7	R	56.3	6830
BST11	0.97	U		11.1	R	59.1	7030
BST12	0.95	U		16.4	R	66.9	10000
DAC01	0.53	T	x	25.8	R	84.3	23100
DAC02	0.57	T	x	24.5	R	80.1	20200
DAC03	0.37	T	x	26.6	R	73.7	17900
DAC04	0.33	T	x	28.4	R	56	13800
DAC05	0.60	U	x	24.6	R	57.4	12000
DAC06	0.52	T	x	27.2	R	72	14000
DAC07	0.45	T	x	28.9	R	69	12900
DAC08	0.51	T	x	27.1	R	59.4	13300
DAC09	0.87	U		26.2	R	68.3	12400
2229	0.90	U		14.7	R	35.7	4630
2238	0.76	U	x	25.4	R	66.5	9250
2243	0.87	U		22.2	R	42.2	3910
2433	0.84	U		13.3	R	49.1	5640
2435	1.11	U		6.9	R	28.1	3140
2441	0.95	U		14.8	R	62.9	20000

(a) Based on calculated RBI; U = undegraded, T = transitional, D = degraded.
(b) Based on calculated BRI; R = Reference.

4.2.4 Bioaccumulation

At T_0 (unexposed clams) and T_{28} (after 28 days of sediment exposure, most clam tissues contained detectable levels of most metals (Appendix I). Only three PAHs were detected in T_0 clams, whereas most PAHs were detected in clams tested after 28 days of sediment exposure, most notably in sediments from the B Street/Broadway Piers stations. No PCBs, Aroclors, or pesticides were detected in clams at T_0 or T_{28}.

Net bioaccumulation at each site (T_{28} – mean T_0) was calculated for each metal and for total PAHs (Appendix I); these were compared to the upper 95% confidence limit for reference site values (Table 4-3). PAH accumulation exceeded the 95% upper confidence limit at six stations (including 2441); all stations experienced accumulation of at least one, and sometimes many, individual metals in excess of the 95% upper confidence limit. Net losses of individual metals occurred in some cases, and were prevalent for cadmium, strontium, and zinc. For some stations, the net loss of zinc, molybdenum and strontium over the 28-day period was much less than the loss experienced by the reference site clams, as indicated by comparison to the 95% upper confidence limit.

Toxicity reference values (TRVs) were available for eight of the metals detected in clam tissues after 28 days of exposure; no TRVs were available for PAHs. Risks calculated for the lesser scaup, based on clam ingestion and incidental sediment ingestion, were negligible (Appendix J). The dose:low-TRV ratio for copper slightly exceeded 1 (1.011 to 1.459) at five study site stations; one of these stations had a selenium ratio of 1.338. None of the dose:high-TRV ratios exceeded 1.

Table 4-4. Stations where bioaccumulation exceeded upper 95% confidence limit for reference site bioaccumulation.

	95% UCL+	SWZ01*	SWZ02	SWZ04	BST01	BST04*	BST05	BST06	BST07	DAC01	DAC03	DAC05*	DAC07	DAC09	2229	2238	2243	2433	2435	2441
Analyte																				
Aluminum	521	b					x			x	x			x	x		x			
Antimony	0.155	abc	x			c		x		x							x	x		
Arsenic	0.638	abc	x	x	x	abc	x	x	x	x	x	ab	x	x	x		x			
Barium	3.13	ac		x			x			x	x	a		x	x					x
Beryllium	0.010	a				c	x													
Cadmium	0.005	a		x								a							x	
Chromium	1.10	ab			x	c		x		x	x						x			
Cobalt	0.268															x	x			
Copper	-1.03	abc	x	x	x	abc	x	x	x	x	x	ab	x	x	x					
Iron	740	abc		x			x			x	x	a		x	x		x			
Lead	1.49	abc	x	x	x	abc	x	x		x	x	abc	x	x	x					
Manganese	6.43											ab		x	x					
Mercury	0.044	a	x	x						x	x	a		x	x					
Molybdenum	-1.16	abc	x	x	x	abc	x	x	x	x	x	ab	x	x	(x)					
Nickel	-0.005	abc	x	x		abc				x	x	ab	x	x		x				
Selenium	0.133	ac				bc											x			
Silver	0.017	bc			x	ac	x	x							x	x			x	
Strontium	-14.4	(b)	(x)			(c)	(x)		(x)	(x)	x	(a)		(x)			(x)			
Thallium	0.011	a	x	x		a				x	x	a		x	x		x			
Tin	0.299	abc	x	x	x	ac	x		x	x	x	ab		x	x					
Titanium	24.5	a		x		c	x			x	x	a		x	x		x			
Vanadium	1.26	abc		x		ac	x	x		x	x			x	x		x			
Zinc	-13.0	a(b)(c)	(x)	x		bc				(x)	(x)	(a)(b)	(x)	(x)	(x)					(x)
Total PAHs	1368	bc			x	abc	x		x											x

+ 95% upper confidence limit for reference site mean values, in mg/kg dw for metals, and ng/g dw for PAHs; value for beryllium was same for all reference stations (0.01).
* Indicates station where three field replicates (a, b, c) were tested for bioaccumulation.
a, b, c, and x indicate sample where net bioaccumulation was positive and greater than 95% upper confidence limit of reference site values.
() around a, b, c or x indicates sample where net bioaccumulation was negative but greater than 95% upper confidence limit of reference site values.

5.0 Discussion

5.1 Determination of Impairment

5.1.1 Switzer Creek

Relative to previous studies conducted as part of the Bay Protection and Toxic Cleanup Program, sediments at Switzer Creek were less contaminated in the present study. Fairey *et al.* (1998) analyzed one sample from this site (BPTCP Station 90039), near current station SWZ01. Sediment from station 90039 was highly contaminated with organic chemicals. Seven ERM guideline values were exceeded at this time, including those for total chlordane, total PCBs and total PAHs. In addition, sediment from this station was highly toxic to amphipods (10-d survival of *Eohaustorius estuarius* was 22%) and sea urchin larvae, and had degraded benthic community structure (RBI = 0.02). While sediments from some Switzer Creek stations were contaminated in 2003, particularly by chlordane and PCBs, the degree of contamination is lower in terms of the number of guideline values exceeded, and the magnitude of contamination by chemical mixtures. SQGQ1 values in sediments from this site ranged from 0.288 to 0.468. Although these values exceeded the upper 95% confidence limit of the reference stations SQGQ1 distribution (95% UCL= 0.172), these values were low relative to those associated with acute toxicity. In a survey of a national sediment quality database, Fairey *et al.* (2001) found that average amphipod survival was 76% in sediment exhibiting contaminant mixtures within this range. Mercury in some samples from Switzer Creek also exceeded the ERM guideline. However, Long *et al.* (1995) had little confidence in the ERM for this metal as a predictor of acute toxicity.

Two of the Switzer Creek stations were marginally toxic to amphipods: SWZ04 (69% survival) and SWZ06 (70% survival). This was insufficient mortality to conduct a Toxicity Identification Evaluation. Based on previous experience, we require a minimum of 50% mortality in order to resolve differences between TIE treatments and sample toxicity. No toxicity to sea urchin fertilization or bivalve embryos was observed. It is possible that because we used relatively short-term toxicity tests in this study, we did not account for chronic toxicity effects. Benthic community characterizations are included in sediment quality assessments because benthic assessments are thought to account for chronic exposure to contaminants. Two stations from Switzer Creek had degraded benthos based on the Relative Benthic Index (RBI; SWZ01 and SWZ02), and all other Switzer Creek stations except SWZ03 had RBI scores indicating transitional benthic community structure. The two stations demonstrating degraded benthic community structure were not the two stations where significant toxicity was observed.

There was no agreement between the two benthic community assessment methods. Based on the Benthic Response Index (BRI), benthic community structure at all Switzer Creek stations was representative of reference conditions for southern California bays. It is not possible to determine which approach correctly characterized benthic community structure in the Switzer Creek samples. The differences in the two indices may be due to their methods of calculation. The BRI is calculated using pollution tolerance values derived for specific indicator species, and the calculation incorporates weighting based on the numbers of each of these indicator species. This method emphasizes response to contaminants. The RBI is calculated based on a combination of indices: total fauna, total bivalve species, total crustacean species and

individuals, and the presence of positive and negative indicator species. The RBI method responds to non-contaminant factors such as disturbance (*e.g.*, dredging; personal communication, J. Oakden, Moss Landing Marine Laboratories). This area was dredged in September 2002 (personal communication, B. Ott, SDRWQCB). The low RBI scores at SWZ01 and SWZ02 were due to a combination of low faunal densities, few species, the presence of negative indicator species (*Capitella sp*. and oligochaetes), and few positive indicator species. Benthic community analyses of sediments from these two stations conducted prior to the 2002 dredging project showed greater densities and a larger number of species at these two stations (MEC 2003). Based on this, and the chemical and toxicity data collected as part of the current study, it is not possible to determine whether the low RBI values at these stations were due to contaminant or non-contaminant factors. We anticipate that the relationships between contaminants, toxicity, and benthic community response will be better understood with additional sampling scheduled as part of Phase II studies. Benthic community structure will be characterized again at the Switzer Creek site in July 2004, at which time residual impacts of the 2002 dredging should be decreased.

MEC (2003) found much greater sediment contamination in composited deep (1 to 2 m) sediment samples from Switzer Creek in August 2002. These samples contained considerably higher concentrations of chlordanes, PAHs, and PCBs than those in the current study. These samples were also significantly toxic to amphipods, and bivalves exposed to these sediments accumulated elevated concentrations of PCBs, copper, and lead. Note that these were deep sediments sampled for a dredge disposal characterization project while the current study restricted sampling to more recently deposited material in the top 5 cm. In the current study, bivalves exposed to Switzer Creek sediments for 28-d accumulated greater concentrations of metals than those exposed to reference sediments. Tissue metal concentrations were compared to selected consensus-based Toxicity Reference Values (TRVs) developed by the Biological Technical Assistance Group (BTAG). Dose was compared to low and high TRVs, and the calculation included incidental consumption of metals via sediment ingestion. Except for copper at two of the replicate stations sampled at SWZ01, and copper and selenium in SWZ02, no other tissues exceeded the TRV low values in these samples. No samples exceeded the TRV high values. These results suggest minimal risk of metals to lesser scaup (*Aythya affinis*) based on consumption of clams.

The only organic chemicals detected in *Macoma* tissues exposed to Switzer Creek sediment samples were PAHs; there are no TRV values for PAHs. All other organic chemicals were below method detection limits in these samples (tissue organics MDL = 1 ng/g dry wt.). Quality assurance guidelines were met in these analyses, including those for PCB, PAH, and tetrachloro-m-xylene (TCMX) surrogate recoveries. It is possible that low organochlorine pesticide and PCB concentrations in clam tissues reflected low lipid concentrations in the clams used for these experiments. The average initial (T_0) lipid concentrations in *Macoma* tissues were 0.16%. The final (28-d) average percent lipid concentrations in clams exposed to site sediments were 0.064%, 0.241%, 0.151%, and 0.124%, in tissue samples from Switzer Creek, Downtown Anchorage, B Street/Broadway Piers, and the reference stations, respectively. These values are considerably lower than those reported in the literature for *Macoma nasuta.* In a study of the influence of sediment TOC on PCB bioaccumulation in *M. nasuta*, Boese *et al.* (1995) reported initial clam tissue lipids concentrations of 7.5%, declining to 4.6% after 42-d. In a previous

study of *M. nasuta* bioaccumulation in Los Angeles Harbor sediment, Anderson *et al.* (2001) reported average 28-d lipid concentrations of 6.9%. The average lipid concentration in *Macoma* used for bioaccumulation studies in the Nassco/Southwest marine risk assessment was approximately 0.5% (Exponent 2001). It is possible the *Macoma* used in the current study were either under nourished, or expending energy for reproduction. Bioaccumulation of sediment contaminants will be re-assessed as part of Phase II studies scheduled to begin in February 2004.

Based on this evidence, sediments from Switzer Creek were less contaminated than indicated in previous assessments conducted as part of the Bay Protection and Toxic Cleanup Program. Two stations were toxic to amphipods, but no samples were toxic to sea urchin gametes or bivalve embryos (Table 5-1). Two stations had degraded benthic community structure based on the Relative Benthic Index, but benthic community structure was comparable to reference conditions based on the Benthic Response Index. These results are confounded by the fact that this site was dredged in September 2002. Minimal metal bioaccumulation was observed, and PAH bioaccumulation was greater than that observed at the reference stations. Reasons for the lack of measurable organochlorine chemical bioaccumulation are not clear, but may be due to low lipid concentrations in the clams used for these experiments. Phase II studies at Switzer Creek will emphasize temporal variability of chemical contamination, toxicity, and bioaccumulation at two stations nearest the creek input, and will begin in February 2004. In addition, benthic community structure will be re-characterized in July 2004.

Table 5-1. Summary of potential sediment degradation at each station.

Station	Chemical Contamination		Toxicity	Benthic Community Degradation		Bioaccumulation	
	Sediment guideline exceedance	SQGQ > reference		RBI	BRI	1+ analyte > reference	Risk to avian receptor
SWZ01	Chlordanes	x		x		x	
SWZ02		x		x		x	
SWZ03	PCBs	x				x	
SWZ04	Hg	x	*Eohaustorius*			x	
SWZ05	Chlordanes	x				x	
SWZ06	Chlordanes, Sb	x	*Eohaustorius*			x	
BST01	Hg	x				x	
BST02	Hg	x				x	
BST03		x				x	
BST04	Hg	x				x	
BST05	Hg	x				x	
BST06	Hg	x				x	
BST07	PAHs, Hg	x				x	
BST08	Hg	x				x	
BST09	PAHs	x				x	
BST10		x				x	
BST11						x	
BST12	Hg	x				x	
DAC01	Hg	x				x	
DAC02	PCBs, Hg	x				x	
DAC03	PCBs, Hg	x				x	
DAC04		x	*Eohaustorius*			x	
DAC05		x				x	
DAC06	Hg	x				x	
DAC07	Hg	x				x	
DAC08		x				x	
DAC09		x				x	
2229						x	
2238		x				x	
2243						x	
2433						x	
2435						x	
2441						x	

5.1.2 B Street/Broadway Piers

Sediments in the vicinity of B Street and the Broadway Piers had low chemical contamination relative to existing sediment quality guideline values (Table 5-1). Samples from several stations exceeded the ERM guideline value for mercury, but as stated above, Long *et al.* (1995) had limited confidence in the guideline for mercury as a predictor of acute toxicity. Two stations also exceeded the consensus based sediment quality guideline value for total PAHs (BST07 and BST09). Based on comparison to the SQGQ1 values, mixtures of chemicals in B Street/Broadway Piers sediments exceeded the upper 95% confidence interval of the reference

station distribution (B Street/Broadway Piers SQGQ1 range = 0.168 to 0.462). However, the range of SQGQ1 values in these sediments was low relative to the range expected to be acutely toxic to amphipods. Fairey et al. (2001) found average amphipod survival was greater than 76% sediments with SQGQ1 values in this range. None of the 12 sediment samples from this site were acutely toxic to amphipods. In addition, sediment cores were not significantly toxic to bivalve embryos exposed at the sediment-water interface, and porewater from these sediments were not toxic to sea urchin gametes. Results of the two indices used for characterizing benthic community structure were comparable. All stations except BST02 had undegraded benthic community structure based on the RBI method (BST02 = transitional benthos). Based on the BRI, benthos at all B Street/Downtown Pier stations were representative of reference conditions in southern California bays and estuaries.

Bioaccumulation of metals by *Macoma nasuta* was measured in all B Street/Broadway Piers sediments tested. Except for copper at two of the replicate stations sampled at BST04, and copper at BST01, no other tissues exceeded the TRV low values in these samples. No samples exceeded the TRV high values. These results suggest minimal risk of metals to scaup based on consumption of clams. Bioaccumulation of PAHs by *Macoma* reflected elevated concentrations of PAHs in some B Street/Broadway Piers sediments. Tissues from clams exposed to sediments from BST01, BST04, BST05 and BST07 had total PAH concentrations exceeding the 95% upper confidence interval of the reference station values. There are no Toxicity Reference Values available for PAHs. All other organic chemicals were below method detection limits in these samples (tissue organics MDL = 1 ng/g dry wt.). Quality assurance guidelines were met in these analyses, including those for PCB, PAH, and TCMX surrogate recoveries. As discussed above, it is possible that low organochlorine pesticide and PCB concentrations in clam tissues reflected low lipid concentrations in the clams used for these experiments. The average initial (T_0) lipid concentrations in *Macoma* tissues were 0.16%, and final (28-d) average percent lipid concentrations in clams exposed to site sediments were 0.151% in tissue samples from the B Street/Broadway Piers. These values are low relative to other studies using *Macoma nasuta.* Concentrations of PCBs and organochlorine pesticides were also lower in the sediments than those measured in the Switzer Creek sediments.

Based on the weight of evidence, sediments from the B Street/Broadway Piers were less contaminated than indicated in previous assessments conducted as part of the Bay Protection and Toxic Cleanup Program, and were not acutely toxic (Table 5-1). No stations had degraded benthic community structure based on the RBI or BRI methods. Minimal metal bioaccumulation was observed, and PAH bioaccumulation some of these stations was greater than that observed at the reference stations. Phase II studies at this site will emphasize temporal variability of chemical contamination, toxicity, and bioaccumulation at two stations from this site, and will begin in February 2004. In addition, benthic community structure will be re-characterized in July 2004.

5.1.3 Downtown Anchorage

Sediments in the vicinity of the Downtown Anchorage also had low chemical contamination relative to existing sediment quality guideline values (Table 5-1). Samples from several stations exceeded the ERM guideline value for mercury, and two stations exceeded the consensus based

sediment quality guideline value for total PCBs (DAC02 and DAC03). Based on comparison to the SQGQ1 values, mixtures of chemicals in sediments from this site exceeded the upper 95% confidence interval of the reference station distribution (Downtown Anchorage SQGQ1 range = 0.223 to 0.618). However, the range of SQGQ1 values in these sediments was low relative to the range expected to be acutely toxic to amphipods. One of the 9 sediment samples from this site was acutely toxic to amphipods (DAC04). Sediment cores were not significantly toxic to bivalve embryos exposed at the sediment-water interface, and porewater from these sediments were not toxic to sea urchin gametes. Results of the two indices used for characterizing benthic community structure were not completely comparable. The majority of these stations had transitional benthic community structure based on the RBI method, and two of these had values approaching the threshold for degraded benthos (DAC03 and DAC04). Two stations had undegraded benthic community structure based on the RBI method (DAC05 and DAC 09). Based on the BRI method, benthos at all Downtown Anchorage stations were characterized as representative of reference conditions in southern California bays and estuaries.

As was observed at the other sites, bioaccumulation of metals by *Macoma nasuta* was measured in all Downtown Anchorage sediments tested. Except for copper at DAC01, no other tissues exceeded the TRV low values in these samples. No samples exceeded the TRV high values. These results suggest minimal risk of metals to scaup based on consumption of clams. No significant bioaccumulation of PAHs by *Macoma* was detected in Downtown Anchorage sediments relative to the 95% upper confidence interval of the reference station values. All other organic chemicals were below method detection limits in these samples (tissue organics MDL = 1 ng/g dry wt.). Quality assurance guidelines were met in these analyses, including those for PCB, PAH, and TCMX surrogate recoveries. Low organochlorine pesticide and PCB concentrations in clam tissues from these samples may reflect low lipid concentrations in the clams used for these experiments. The average initial (T_0) lipid concentrations in *Macoma* tissues were 0.16%, and final (28-d) average percent lipid concentrations in clams exposed to site sediments were 0.241% in tissue samples from the Downtown Anchorage.

Based on this evidence, sediments from the Downtown Anchorage were less contaminated than indicated in previous assessments conducted as part of the Bay Protection and Toxic Cleanup Program, and were not acutely toxic (Table 5-1). No stations had degraded benthic community structure based on the RBI or BRI methods. Minimal metal and PAH bioaccumulation was measured, and no significant organochlorine compound bioaccumulation was observed. Phase II studies at this site will emphasize temporal variability of chemical contamination, toxicity, and bioaccumulation at two stations, and will begin in February 2004. In addition, benthic community structure will be re-characterized in July 2004.

5.1.4 Reference Stations

Based on the chemical and biological criteria listed in the Phase I Sediment Assessment Plan (Marine Pollution Studies Laboratory 2003a), the reference stations used in the definitive study were acceptable. No ERM guideline values were exceeded at the reference stations, and mixtures of chemicals represented by the SQGQ1 values were uniformly low relative to those expected to be acutely toxic (Table 5-1). No significant toxicity was observed in the reference station sediments. In addition, benthic community structure was undegraded at these stations

based on both methods of characterization. There was relatively low bioaccumulation of contaminants in *Macoma* tissues, and no TRV low values were exceeded in these samples. The only organic chemicals detected in these tissues were PAHs. Total PAH concentrations in tissues from clams exposed to station 2441 exceeded the 95% UCL for PAHs in reference station tissues. As with the other clams, low lipid concentrations in reference station clams may play a role in lack of detection of organochlorine compounds in these samples (average lipids in reference clam tissues = 0.124%).

These reference stations are presumed to represent background conditions in the bay at the time of this study. One of the primary goals of the stakeholders involved in sediment quality assessments in San Diego Bay is to be able to accurately differentiate between background and impacted conditions, and to be able to determine whether impacts are due to contaminants or other non-contaminant factors. Because sediment grain size and TOC affect contaminant partitioning in sediment as well as the distribution of benthic macroinvertebrate species, it is important that these constituents represent the range of values measured in Switzer Creek, B Street/Broadway Piers and Downtown Anchorage sediments. Measured as percent fined grained sediment (percent fines), the range of values for the 27 stations at Switzer Creek, B Street/Broadway Piers, and the Downtown Anchorage was 46.7% to 99.8%. Switzer Creek samples had the finest grained sediments. The range of percent fines in the 6 reference site samples was 28.1% to 66.5%. These were representative of the majority of stations sampled, but not of the finest grained sediments, particularly not the three Switzer Creek stations with greater than 90% fines. Grain sizes in bay sediments vary over time. The grain size distribution for these same 6 reference stations was somewhat higher when measured in the Bight '98 survey (percent fines range = 35% to 79%). Three of these stations were also measured during the reconnaissance survey in February 2003 (2238, 2243, 2433) and the grain sizes then were 81%, 35%, and 45%, respectively. The range of TOC in the 27 study site sediments was 0.68% to 2.42%, while the range of TOC in the 6 reference stations was 0.31 to 2.00%. TOC values in the reference stations also vary temporally. TOC values during the Bight '98 surveys were higher at all 6 of the reference stations, and they were higher at the 3 stations sampled as part of the reconnaissance survey. Five of these reference stations will be used during Phase II of this project. Station 2235 will not be sampled during Phase II because it had the lowest percent fines and TOC, and because this part of the Bay is represented by two other reference stations.

5.1.5 Phase II Studies

The results described in this report are the first phase of ongoing studies designed to further assess sediment quality at three San Diego Bay sites identified by the Bay Protection and Toxic Cleanup Program. While this study suggests reduced sediment contamination and associated impacts at these sites relative to previous studies, the results are inconclusive. We are particularly interested in whether San Diego Bay sediment quality varies with season, especially at sites influenced by stormwater and seasonal urban runoff. Phase II studies are designed to consider temporal variability by measuring sediment quality at subsets of the original Switzer Creek, B Street/Broadway Piers, and Downtown Anchorage stations in February, July, and September 2004. As in the current study, measures will include sediment chemistry and physical characterizations, toxicity tests, and bioaccumulation by bivalves. If significant toxicity is detected, TIEs will be conducted at selected stations. Benthic community structure will be

characterized during the summer index period in July 2004. These studies are detailed in the Phase II Sediment Assessment Plan (Marine Pollution Studies Laboratory, 2003c).

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Appendices

Appendix A. Data from reference site reconnaissance sampling.

Sediment chemistry data (reconnaissance)—Pesticides results summary (results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	QAQC Procedural Blank	2238	2240	2243	2433	90053 (R1)	90053 (R2)	93195
[Total Detectable DDTs]		0	0	0	0	0	0	0	0
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND
cis-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	1	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	ND

Sediment chemistry data (reconnaissance)—PCB results summary (results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	QAQC Procedural Blank	2238	2240	2243	2433	90053 (R1)	90053 (R2)	93195
PCB018	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB028	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB037	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB044	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB049	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB052	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB066	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB070	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB074	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB077	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB105	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND	ND	ND

Sediment chemistry data (reconnaissance)—PCB results summary (results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	QAQC Procedural Blank	2238	2240	2243	2433	90053 (R1)	90053 (R2)	93195
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB138	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB183	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB194	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		0	0	0	0	0	0	0	0
Aroclor 1016	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	10	ND	ND	ND	ND	ND	ND	ND	ND

Sediment chemistry data (reconnaissance)—PAH results summary (results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	QAQC Procedural Blank	2238	2240	2243	2433	90053 (R1)	90053 (R2)	93195
(d10-Acenaphthene)		102	49	72	57	60	52	56	59
(d10-Phenanthrene)		105	71	83	76	79	74	79	81
(d12-Chrysene)		97	85	98	105	105	97	97	99
(d12-Perylene)		97	85	101	107	108	97	107	109
(d8-Naphthalene)		102	21	53	33	33	22	28	31
1-Methylnaphthalene	1	ND	12.3	13.7	6.6	8.6	10.5	13	8.9
1-Methylphenanthrene	1	ND	ND	3.1	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	1	ND	5.3	9.3	4.9	8.6	9	6.2	9.4
2-Methylnaphthalene	1	ND	21.2	28.1	14.3	19.3	22.4	22.2	18.6
Acenaphthene	1	ND	ND	2.5	1.5	1.6	1.3	3.2	2
Acenaphthylene	1	ND	ND	5.4	2.7	8.9	ND	ND	10.3
Anthracene	1	ND	ND	12	6.4	18.8	2.1	2.1	22.1
Benz[a]anthracene	1	ND	ND	13.5	6	44.8	4.1	4.2	26.8
Benzo[a]pyrene	1	ND	ND	49.5	21.6	104	17	18	80.8
Benzo[b]fluoranthene	1	ND	ND	50.1	27.9	92	19.8	19.1	95.5
Benzo[e]pyrene	1	ND	ND	49	25.6	81	19.4	18.6	75.1
Benzo[g,h,i]perylene	1	ND	ND	88.9	88.9	116	30.2	34.2	ND
Benzo[k]fluoranthene	1	ND	ND	53.3	32	101	15.9	17.7	93.6
Biphenyl	1	ND	7.5	6.6	3.4	7.4	7.5	5.8	6.4
Chrysene	1	ND	ND	30	13.6	76.8	9.7	13	47.8
Dibenz[a,h]anthracene	1	ND	ND	ND	ND	ND	ND	ND	10.8
Fluoranthene	1	ND	16.7	38.5	20	67.2	21.5	22.1	54.5
Fluorene	1	ND	ND	1	ND	ND	ND	ND	ND
Indeno[1,2,3-c,d]pyrene	1	ND	ND	63.2	30.3	119	13.6	ND	149
Naphthalene	1	ND	39.8	45	26.3	32.1	37.3	34.9	35
Perylene	1	ND	ND	7.9	2.8	24	ND	ND	22.7
Phenanthrene	1	ND	5.9	14.5	6.9	20.8	7.6	8.7	20.3

Sediment chemistry data (reconnaissance)—PAH results summary (results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	QAQC Procedural Blank	2238	2240	2243	2433	90053 (R1)	90053 (R2)	93195
Pyrene	1	ND	20.2	50.3	23.9	87.2	26.6	28.2	68.5
Total Detectable PAHs		0	128.9	635.4	365.6	1039	275.5	271.2	858.1

Sediment chemistry data (reconnaissance)—Metals results summary (results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	QAQC Procedural Blank	2238	2240	2243	2433	90053 (R1)	90053 (R2)	93195
Aluminum (Al)	1	ND	off scale	47400	21500	27400	27900	56400	46300
Antimony (Sb)	0.05	ND	0.38	0.58	0.24	0.31	0.29	0.49	0.49
Arsenic (As)	0.05	ND	9.89	11.2	5.84	7.2	7.25	10.7	10.9
Barium (Ba)	0.05	ND	102	98	44.5	85.3	86.5	116	103
Beryllium (Be)	0.01	ND	0.75	0.75	0.37	0.45	0.43	0.83	0.74
Cadmium (Cd)	0.01	ND	0.24	0.15	0.11	0.25	0.25	0.23	0.17
Chromium (Cr)	0.05	ND	57.3	64.6	31.2	38.2	39.7	61.1	70.6
Cobalt (Co)	0.01	ND	11.2	10.3	4.83	6.13	6.2	12.2	9.45
Copper (Cu)	0.01	ND	82.2	98.8	60.6	59.6	60.1	100	138
Iron (Fe)	1	ND	41900	40400	17700	24600	25180	44500	39400
Lead (Pb)	0.01	ND	24.2	34.9	20.5	18.9	19.4	26.1	47.9
Manganese (Mn)	0.05	ND	359	318	159	218	217	361	252
Mercury (Hg)	0.005	ND	0.21	0.34	0.19	0.19	0.2	0.23	0.45
Molybdenum (Mo)	0.05	ND	0.5	0.7	0.38	0.61	0.61	0.59	0.64
Nickel (Ni)	0.01	ND	17.1	16.1	7.42	10.9	10.9	18.4	17.5
Selenium (Se)	0.05	ND	0.18	1	0.78	1.07	1.11	0.31	1
Silver (Ag)	0.01	ND	0.8	1.13	0.72	0.65	0.57	1.03	1.21
Strontium (Sr)	0.05	ND	57.7	51.6	29.9	51.4	53.8	55.4	47.6
Thallium (Tl)	0.01	ND	0.33	0.33	0.2	0.26	0.26	0.37	0.36
Tin (Sn)	0.05	ND	4.37	6.17	3.09	3.36	3.38	4.73	7.28
Titanium (Ti)	0.05	ND	2090	2060	1090	1600	1560	2430	1970
Vanadium (V)	0.05	ND	93.4	89.5	38.2	57.3	57.7	102	87.7
Zinc (Zn)	0.05	ND	235	227	128	134	134	275	283

Sediment chemistry analyses (reconnaissance)—TOC results summary; results in % dry weight—CRG Marine Laboratories, Inc.

Analyte	2238	2240	2243	2433	90053	93195
TOC (MDL = 0.01%)	1.62	1.3	0.74	1.01	1.43	1.53

Grain size analyses (reconnaissance)—AMEC Earth and Environmental

		2238	2240	2243	2433	90053	93195
Size Fraction	**Size (mm)**						
Gravel	>2000	0.1%	0.2%	0.1%	0.0%	0.4%	0.6%
Sand	63-2000	19.2%	32.7%	65.3%	55.2%	20.6%	41.1%
Silt	4-63	53.8%	39.4%	9.6%	17.5%	38.3%	39.7%
Clay	<4	26.9%	27.8%	25.0%	27.2%	40.7%	18.7%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Fines (Silt + Clay)	<63	80.7%	67.1%	34.6%	44.8%	79.0%	58.3%

10-day *Eohaustorius* survival toxicity test in sediment (reconnaissance, Test Run 2); Marine Pollution Studies Laboratory

Station	Jar Number	Replicate	Final # Alive	Initial # Alive	Final Proportion Alive	Mean Final Proportion Alive	Standard Deviation of Final Proportion Alive
2238	2	1	16	20	0.80	0.78	0.06
2238	3	2	15	20	0.75		
2238	10	3	17	20	0.85		
2238	16	4	16	20	0.80		
2238	29	5	14	20	0.70		
2240	1	1	16	20	0.80	0.77	0.04
2240	14	2	15	20	0.75		
2240	23	3	14	20	0.70		
2240	27	4	16	20	0.80		
2240	34	5	16	20	0.80		
2243	7	1	16	20	0.80	0.88	0.09
2243	11	2	17	20	0.85		

10-day *Eohaustorius* survival toxicity test in sediment (reconnaissance, Test Run 2); Marine Pollution Studies Laboratory

Station	Jar Number	Replicate	Final # Alive	Initial # Alive	Final Proportion Alive	Mean Final Proportion Alive	Standard Deviation of Final Proportion Alive
2243	18	3	20	20	1.00		
2243	19	4	19	20	0.95		
2243	31	5	16	20	0.80		
2433	4	1	20	20	1.00	0.89	0.09
2433	5	2	19	20	0.95		
2433	17	3	16	20	0.80		
2433	28	4	16	20	0.80		
2433	32	5	18	20	0.90		
90053	9	1	16	20	0.80	0.50	0.35
90053	15	2	15	20	0.75		
90053	25	3	4	20	0.20		
90053	26	4	14	20	0.70		
90053	35	5	1	20	0.05		
93195	6	1	16	20	0.80	0.79	0.10
93195	13	2	15	20	0.75		
93195	21	3	13	20	0.65		
93195	22	4	18	20	0.90		
93195	24	5	17	20	0.85		
HOME	8	1	19	20	0.95	0.97	0.03
HOME	12	2	19	20	0.95		
HOME	20	3	20	20	1.00		
HOME	30	4	19	20	0.95		
HOME	33	5	20	20	1.00		

4-day *Strongylocentrotus purpuratus* (purple urchin) larval development toxicity test at the sediment-water interface (reconnaissance)—Marine Pollution Studies Laboratory

Station	Replicate	# Normal	# Abnormal	Proportion Normal	Mean Proportion Normal	Standard Deviation of Proportion Normal	Final Proportion Alive	Mean Final Proportion Alive	Standard Deviation of Final Proportion Alive
2238	1	161	1	0.99	0.99	0.01	0.61	0.70	0.06
2238	2	197	2	0.99			0.75		
2238	3	184	2	0.99			0.70		
2238	4	180	3	0.98			0.69		
2238	5	199	5	0.98			0.77		
2240	1	186	6	0.97	0.92	0.07	0.72	0.62	0.14
2240	2	171	5	0.97			0.66		
2240	3	107	22	0.83			0.48		
2240	4	200	7	0.97			0.78		
2240	5	110	16	0.87			0.47		
2243	1	207	13	0.94	0.93	0.07	0.83	0.55	0.30
2243	2	9	2	0.82			0.04		
2243	3	144	5	0.97			0.56		
2243	4	162	6	0.96			0.63		
2243	5	186	3	0.98			0.71		
2433	1	142	4	0.97	0.93	0.12	0.55	0.53	0.07
2433	2	158	2	0.99			0.60		
2433	3	156	2	0.99			0.59		
2433	4	83	35	0.70			0.44		
2433	5	124	3	0.98			0.48		
90053	1	139	6	0.96	0.96	0.05	0.55	0.49	0.20
90053	2	171	1	0.99			0.65		
90053	3	46	7	0.87			0.20		
90053	4	179	4	0.98			0.69		
90053	5	100	1	0.99			0.38		

4-day *Strongylocentrotus purpuratus* (purple urchin) larval development toxicity test at the sediment-water interface (reconnaissance)—Marine Pollution Studies Laboratory

Station	Replicate	# Normal	# Abnormal	Proportion Normal	Mean Proportion Normal	Standard Deviation of Proportion Normal	Final Proportion Alive	Mean Final Proportion Alive	Standard Deviation of Final Proportion Alive
93195	1	157	7	0.96	0.95	0.07	0.62	0.51	0.27
93195	2	54	1	0.98			0.21		
93195	3	49	10	0.83			0.22		
93195	4	207	2	0.99			0.79		
93195	5	182	4	0.98			0.70		
HOME	1	115	17	0.87	0.95	0.06	0.50	0.62	0.16
HOME	2	194	1	0.99			0.73		
HOME	3	189	2	0.99			0.72		
HOME	4	197	1	0.99			0.74		
HOME	5	96	12	0.89			0.41		

Benthic community analysis (reconnaissance)--Number of benthic individuals —Moss Landing Marine Laboratories

		Number per core			Summary statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Stat2238												
Acteocina harpa	m	3	0	1	4	1.3	1.5	0	3	1.5	0.9	3.4
Amphissa sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	3	0	4	1.3	1.5	0	3	1.5	0.9	3.4
Armandia brevis	p	11	18	15	44	14.7	14.5	11	18	3.5	2.0	7.9
Assiminea? californica	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Bivalvia	m	2	0	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Caprella natalensis	c	11	3	1	15	5.0	6.0	1	11	5.3	3.1	11.9
Cylindroleberididae	c	6	5	2	13	4.3	4.0	2	6	2.1	1.2	4.7
Dorvillea longicornis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Eteone spp. indet.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Eupolymnia heterobranchia	p	1	5	0	6	2.0	2.5	0	5	2.6	1.5	6.0
Exogone lourei	p	11	2	5	18	6.0	6.5	2	11	4.6	2.6	10.3
Fabricinuda limnicola	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Heterophoxus oculatus	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
holothuroidea	o	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Leitoscoloplos pugettensis	p	2	2	2	6	2.0	2.0	2	2	0.0	0.0	0.0
Leptochelia dubia	c	3	0	0	3	1.0	1.5	0	3	1.7	1.0	3.9
Lyonsia californica	m	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Macoma? sp.	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Mediomastus sp(p).	p	20	16	39	75	25.0	27.5	16	39	12.3	7.1	27.6
Musculista senhousia	m	0	11	3	14	4.7	5.5	0	11	5.7	3.3	12.8
Neanthes acuminata	p	2	6	0	8	2.7	3.0	0	6	3.1	1.8	6.9
Nudibranchia	m	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Odontosyllis phosphorea	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	3	4	1	8	2.7	2.5	1	4	1.5	0.9	3.4
Ophiuroid	o	2	0	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Paracerceis sculpta	c	1	7	0	8	2.7	3.5	0	7	3.8	2.2	8.5
Paratanais? sp.	c	5	3	11	19	6.3	7.0	3	11	4.2	2.4	9.4
Pherusa cf. negligens	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
phoronida	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Podocerus cristatus	c	2	4	0	6	2.0	2.0	0	4	2.0	1.2	4.5
Prionospio heterobranchia	p	16	7	7	30	10.0	11.5	7	16	5.2	3.0	11.7
Pseudopolydora paucibranchiata	p	14	4	7	25	8.3	9.0	4	14	5.1	3.0	11.5
Rudilemboides stenopropodus	c	2	2	2	6	2.0	2.0	2	2	0.0	0.0	0.0
Rutiderma judayi	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	6	10	6	22	7.3	8.0	6	10	2.3	1.3	5.2
Theora lubrica	m	2	1	3	6	2.0	2.0	1	3	1.0	0.6	2.3
Thracia sp.	m	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Total Crustaceans	**9**	**31**	**24**	**18**	**73**	**24.3**	**24.5**	**18**	**31**	**6.5**	**3.8**	**14.6**
Total Molluscs	**10**	**9**	**14**	**10**	**33**	**11.0**	**11.5**	**9**	**14**	**2.6**	**1.5**	**6.0**
Total Fauna	**38**	**133**	**117**	**114**	**364**	**121.3**	**123.5**	**114**	**133**	**10.2**	**5.9**	**23.0**

Benthic community analysis (reconnaissance)--Number of benthic individuals —Moss Landing Marine Laboratories

		Number per core			Summary statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Total Species	**38**	**29**	**23**	**22**	**74**	**24.7**	**25.5**	**22**	**29**	**3.8**	**2.2**	**8.5**
Stat2240												
Acteocina harpa	m	0	11	4	15	5.0	5.5	0	11	5.6	3.2	12.5
Amphideutopus oculatus	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Amphipoda	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	2	3	3	8	2.7	2.5	2	3	0.6	0.3	1.3
Armandia brevis	p	6	7	12	25	8.3	9.0	6	12	3.2	1.9	7.2
Brania brevipharyngea	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Campylaspis sculpta	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	0	1	2	3	1.0	1.0	0	2	1.0	0.6	2.3
Diastylis sp.	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Dorvillea longicornis	p	0	0	9	9	3.0	4.5	0	9	5.2	3.0	11.7
Edwardsiid	o	2	1	2	5	1.7	1.5	1	2	0.6	0.3	1.3
Eteone spp. indet.	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Euchone limnicola	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	26	20	57	103	34.3	38.5	20	57	19.9	11.5	44.7
Harmothoe imbricata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	1	0	2	3	1.0	1.0	0	2	1.0	0.6	2.3
Leptochelia dubia	c	1	2	2	5	1.7	1.5	1	2	0.6	0.3	1.3
Lyonsia californica	m	0	2	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Macoma? sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Mayerella banksia	c	2	0	1	3	1.0	1.0	0	2	1.0	0.6	2.3
Mediomastus sp(p).	p	20	8	23	51	17.0	15.5	8	23	7.9	4.6	17.9
Musculista senhousia	m	0	31	23	54	18.0	15.5	0	31	16.1	9.3	36.2
Neanthes acuminata	p	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Nemertea	o	2	2	0	4	1.3	1.0	0	2	1.2	0.7	2.6
Odontosyllis phosphorea	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Ophiuroid	o	0	5	2	7	2.3	2.5	0	5	2.5	1.5	5.7
Paratanais? sp.	c	21	16	8	45	15.0	14.5	8	21	6.6	3.8	14.8
phoronida	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Pista percyi	p	3	4	7	14	4.7	5.0	3	7	2.1	1.2	4.7
Polydora cornuta	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	10	9	8	27	9.0	9.0	8	10	1.0	0.6	2.3
Pseudopolydora paucibranchiata	p	18	8	7	33	11.0	12.5	7	18	6.1	3.5	13.7
Rudilemboides stenopropodus	c	5	2	10	17	5.7	6.0	2	10	4.0	2.3	9.1
Scoletoma sp. 1	p	1	2	0	3	1.0	1.0	0	2	1.0	0.6	2.3
Scoletoma sp. 2 (? L. lagunae)	p	23	18	28	69	23.0	23.0	18	28	5.0	2.9	11.3
Theora lubrica	m	3	3	6	12	4.0	4.5	3	6	1.7	1.0	3.9
Thracia sp.	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Total Crustaceans	**9**	**31**	**22**	**26**	**79**	**26.3**	**26.5**	**22**	**31**	**4.5**	**2.6**	**10.1**
Total Molluscs	**6**	**4**	**48**	**35**	**87**	**29.0**	**26.0**	**4**	**48**	**22.6**	**13.1**	**50.9**
Total Fauna	**39**	**156**	**157**	**226**	**539**	**179.7**	**191.0**	**156**	**226**	**40.1**	**23.2**	**90.3**
Total Species	**39**	**27**	**22**	**29**	**78**	**26.0**	**25.5**	**22**	**29**	**3.6**	**2.1**	**8.1**
Stat2243												
Acteocina harpa	m	3	5	2	10	3.3	3.5	2	5	1.5	0.9	3.4
Acuminodeutopus oculatus	c	11	8	3	22	7.3	7.0	3	11	4.0	2.3	9.1
Americhelidium sp.	c	0	1	2	3	1.0	1.0	0	2	1.0	0.6	2.3
Anthozoa	o	1	1	3	5	1.7	2.0	1	3	1.2	0.7	2.6
Armandia brevis	p	0	2	4	6	2.0	2.0	0	4	2.0	1.2	4.5
Asthenothaerus sp.	m	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Bivalvia	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Campylaspis rubromaculata	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	1	2	0	3	1.0	1.0	0	2	1.0	0.6	2.3
Diplocirrus sp. SD1	p	1	1	2	4	1.3	1.5	1	2	0.6	0.3	1.3
Dorvillea longicornis	p	0	3	0	3	1.0	1.5	0	3	1.7	1.0	3.9
Edwardsiid	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3

Benthic community analysis (reconnaissance)--Number of benthic individuals —Moss Landing Marine Laboratories

		Number per core			Summary statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Euchone limnicola	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	11	11	40	62	20.7	25.5	11	40	16.7	9.7	37.7
Exogoninae spp. indet.	p	0	2	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Fabricinuda limnicola	p	0	1	2	3	1.0	1.0	0	2	1.0	0.6	2.3
Goniada littorea	p	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Leitoscoloplos pugettensis	p	2	1	1	4	1.3	1.5	1	2	0.6	0.3	1.3
Leptochelia dubia	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Lyonsia californica	m	2	2	7	11	3.7	4.5	2	7	2.9	1.7	6.5
Macoma? sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Mayerella banksia	c	3	0	2	5	1.7	1.5	0	3	1.5	0.9	3.4
Mediomastus sp(p).	p	5	7	3	15	5.0	5.0	3	7	2.0	1.2	4.5
Modiolus? sp.	m	1	7	1	9	3.0	4.0	1	7	3.5	2.0	7.8
Monoculodes sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Musculista senhousia	m	10	8	22	40	13.3	15.0	8	22	7.6	4.4	17.0
Nemertea	o	0	5	0	5	1.7	2.5	0	5	2.9	1.7	6.5
Odontosyllis phosphorea	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Paratanais? sp.	c	1	0	3	4	1.3	1.5	0	3	1.5	0.9	3.4
phoronida	o	1	2	0	3	1.0	1.0	0	2	1.0	0.6	2.3
Pista percyi	p	4	3	1	8	2.7	2.5	1	4	1.5	0.9	3.4
Polydora cornuta	p	2	1	1	4	1.3	1.5	1	2	0.6	0.3	1.3
Prionospio heterobranchia	p	6	5	4	15	5.0	5.0	4	6	1.0	0.6	2.3
Pseudopolydora paucibranchiata	p	7	14	12	33	11.0	10.5	7	14	3.6	2.1	8.1
Rudilemboides stenopropodus	c	6	11	21	38	12.7	13.5	6	21	7.6	4.4	17.2
Rutiderma judayi	c	1	2	0	3	1.0	1.0	0	2	1.0	0.6	2.3
Scolelepis spp. indet.	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	18	25	16	59	19.7	20.5	16	25	4.7	2.7	10.6
Scoletoma sp. 3	p	2	2	3	7	2.3	2.5	2	3	0.6	0.3	1.3
Spiophanes duplex	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Theora lubrica	m	5	1	1	7	2.3	3.0	1	5	2.3	1.3	5.2
Thracia sp.	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Total Crustaceans	**10**	**24**	**24**	**33**	**81**	**27.0**	**28.5**	**24**	**33**	**5.2**	**3.0**	**11.7**
Total Molluscs	**9**	**24**	**25**	**36**	**85**	**28.3**	**30.0**	**24**	**36**	**6.7**	**3.8**	**15.0**
Total Fauna	**43**	**111**	**138**	**166**	**415**	**138.3**	**138.5**	**111**	**166**	**27.5**	**15.9**	**61.9**
Total Species	**43**	**30**	**32**	**31**	**93**	**31.0**	**31.0**	**30**	**32**	**1.0**	**0.6**	**2.3**
Stat2433												
Acteocina harpa	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Acuminodeutopus oculatus	c	0	8	3	11	3.7	4.0	0	8	4.0	2.3	9.1
Americhelidium sp.	c	1	6	0	7	2.3	3.0	0	6	3.2	1.9	7.2
Ampelisca sp.	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Amphitritinae spp. juv.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	4	0	5	1.7	2.0	0	4	2.1	1.2	4.7
Apoprionospio pygmaea	p	0	2	3	5	1.7	1.5	0	3	1.5	0.9	3.4
Armandia brevis	p	0	2	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Asthenothaerus sp.	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Brania brevipharyngea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Campylaspis rubromaculata	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Chaetozone corona	p	3	6	5	14	4.7	4.5	3	6	1.5	0.9	3.4
Cossura candida	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
cumacea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	20	15	26	61	20.3	20.5	15	26	5.5	3.2	12.4
Dorvilleidae spp. indet.	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Euchone limnicola	p	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Euclymeninae spp. indet.	p	2	1	2	5	1.7	1.5	1	2	0.6	0.3	1.3
Euphilomedes carcharodonta	c	0	2	1	3	1.0	1.0	0	2	1.0	0.6	2.3
Exogone lourei	p	9	4	2	15	5.0	5.5	2	9	3.6	2.1	8.1
Exogoninae spp. indet.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Glycera americana	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Goniada littorea	p	3	2	1	6	2.0	2.0	1	3	1.0	0.6	2.3

Benthic community analysis (reconnaissance)--Number of benthic individuals —Moss Landing Marine Laboratories

		Number per core			Summary statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Heterophoxus oculatus	c	2	2	2	6	2.0	2.0	2	2	0.0	0.0	0.0
Leitoscoloplos pugettensis	p	7	8	14	29	9.7	10.5	7	14	3.8	2.2	8.5
Lyonsia californica	m	0	5	2	7	2.3	2.5	0	5	2.5	1.5	5.7
Mediomastus sp(p).	p	10	27	19	56	18.7	18.5	10	27	8.5	4.9	19.1
Microspio pigmentata	p	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Monocorophium acherusicum	c	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Monticellina cryptica	p	3	4	1	8	2.7	2.5	1	4	1.5	0.9	3.4
Nemertea	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Nephtys cornuta	p	2	1	1	4	1.3	1.5	1	2	0.6	0.3	1.3
oligochaeta	o	0	2	2	4	1.3	1.0	0	2	1.2	0.7	2.6
Pennatulacea	o	2	0	2	4	1.3	1.0	0	2	1.2	0.7	2.6
Pinnixa sp.	c	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Pista alata	p	1	1	2	4	1.3	1.5	1	2	0.6	0.3	1.3
Praxillella spp. indet.	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	2	2	3	7	2.3	2.5	2	3	0.6	0.3	1.3
Rudilemboides stenopropodus	c	4	6	4	14	4.7	5.0	4	6	1.2	0.7	2.6
Rutiderma sp.	c	0	4	0	4	1.3	2.0	0	4	2.3	1.3	5.2
Scoletoma sp. 1	p	11	16	17	44	14.7	14.0	11	17	3.2	1.9	7.2
Scoletoma sp. 2 (? L. lagunae)	p	3	14	6	23	7.7	8.5	3	14	5.7	3.3	12.8
Serolis carinata	c	0	2	1	3	1.0	1.0	0	2	1.0	0.6	2.3
Spiophanes duplex	p	1	0	5	6	2.0	2.5	0	5	2.6	1.5	6.0
Tagelus affinis	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Theora lubrica	m	4	10	7	21	7.0	7.0	4	10	3.0	1.7	6.8
Typosyllis japonica	p	1	2	2	5	1.7	1.5	1	2	0.6	0.3	1.3
Total Crustaceans	**11**	**8**	**30**	**17**	**55**	**18.3**	**19.0**	**8**	**30**	**11.1**	**6.4**	**24.9**
Total Molluscs	**5**	**7**	**15**	**11**	**33**	**11.0**	**11.0**	**7**	**15**	**4.0**	**2.3**	**9.0**
Total Fauna	**47**	**98**	**162**	**151**	**411**	**137.0**	**130.0**	**98**	**162**	**34.2**	**19.8**	**77.0**
Total Species	**47**	**27**	**31**	**39**	**97**	**32.3**	**33.0**	**27**	**39**	**6.1**	**3.5**	**13.7**

Stat90053												
Acteocina harpa	m	4	1	3	8	2.7	2.5	1	4	1.5	0.9	3.4
Acuminodeutopus oculatus	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	7	3	3	13	4.3	5.0	3	7	2.3	1.3	5.2
Armandia brevis	p	4	8	1	13	4.3	4.5	1	8	3.5	2.0	7.9
Assiminea? californica	m	0	2	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Bemlos audbettius	c	7	0	0	7	2.3	3.5	0	7	4.0	2.3	9.1
Bulla? sp.	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Caprella natalensis	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	8	2	3	13	4.3	5.0	2	8	3.2	1.9	7.2
Diastylis sp.	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Edwardsiid	o	2	3	2	7	2.3	2.5	2	3	0.6	0.3	1.3
Ericthonius sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Euphilomedes carcharodonta	c	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Eupolymnia heterobranchia	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	6	2	3	11	3.7	4.0	2	6	2.1	1.2	4.7
Fabricinuda limnicola	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Harmothoe imbricata	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Harpacticoids	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Heterophoxus oculatus	c	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
holothuroidea	o	0	2	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Hydrozoa	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Laonice spp. indet.	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	2	5	2	9	3.0	3.5	2	5	1.7	1.0	3.9
Leptochelia dubia	c	1	7	2	10	3.3	4.0	1	7	3.2	1.9	7.2
Mediomastus sp(p).	p	40	19	35	94	31.3	29.5	19	40	11.0	6.3	24.7
Monoculodes sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Musculista senhousia	m	13	3	27	43	14.3	15.0	3	27	12.1	7.0	27.1
Neanthes acuminata	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Nemertea	o	2	2	1	5	1.7	1.5	1	2	0.6	0.3	1.3

Benthic community analysis (reconnaissance)--Number of benthic individuals —Moss Landing Marine Laboratories

		Number per core			Summary statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
oligochaeta	o	1	2	0	3	1.0	1.0	0	2	1.0	0.6	2.3
Ophiuroid	o	2	1	2	5	1.7	1.5	1	2	0.6	0.3	1.3
Paracerceis sculpta	c	12	0	1	13	4.3	6.0	0	12	6.7	3.8	15.0
Paratanais? sp.	c	0	3	5	8	2.7	2.5	0	5	2.5	1.5	5.7
Pherusa cf. negligens	p	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
phoronida	o	0	2	1	3	1.0	1.0	0	2	1.0	0.6	2.3
Podocerus cristatus	c	6	0	0	6	2.0	3.0	0	6	3.5	2.0	7.8
Prionospio heterobranchia	p	3	4	5	12	4.0	4.0	3	5	1.0	0.6	2.3
Pseudopolydora paucibranchiata	p	7	6	3	16	5.3	5.0	3	7	2.1	1.2	4.7
Pycnogonids	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Rudilemboides stenopropodus	c	15	3	12	30	10.0	9.0	3	15	6.2	3.6	14.1
Rutiderma judayi	c	2	2	1	5	1.7	1.5	1	2	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	9	9	7	25	8.3	8.0	7	9	1.2	0.7	2.6
Theora lubrica	m	6	3	2	11	3.7	4.0	2	6	2.1	1.2	4.7
Total Crustaceans	**17**	**54**	**21**	**28**	**103**	**34.3**	**37.5**	**21**	**54**	**17.4**	**10.0**	**39.1**
Total Molluscs	**4**	**23**	**9**	**32**	**64**	**21.3**	**20.5**	**9**	**32**	**11.6**	**6.7**	**26.1**
Total Fauna	**44**	**165**	**101**	**130**	**396**	**132.0**	**133.0**	**101**	**165**	**32.0**	**18.5**	**72.1**
Total Species	**44**	**28**	**30**	**28**	**86**	**28.7**	**29.0**	**28**	**30**	**1.2**	**0.7**	**2.6**
Stat93195												
Acteocina harpa	m	2	0	6	8	2.7	3.0	0	6	3.1	1.8	6.9
Acuminodeutopus oculatus	c	1	2	0	3	1.0	1.0	0	2	1.0	0.6	2.3
Americhelidium sp.	c	3	0	1	4	1.3	1.5	0	3	1.5	0.9	3.4
Campylaspis sculpta	c	0	0	2	2	0.7	1.0	0	2	1.2	0.7	2.6
Cirratulidae	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	1	0	3	4	1.3	1.5	0	3	1.5	0.9	3.4
Diplocirrus sp. SD1	p	0	2	4	6	2.0	2.0	0	4	2.0	1.2	4.5
Dorvillea longicornis	p	3	2	6	11	3.7	4.0	2	6	2.1	1.2	4.7
Eteone spp. indet.	p	2	1	2	5	1.7	1.5	1	2	0.6	0.3	1.3
Euchone limnicola	p	10	0	20	30	10.0	10.0	0	20	10.0	5.8	22.5
Exogone lourei	p	21	1	33	55	18.3	17.0	1	33	16.2	9.3	36.4
Heterophoxus oculatus	c	1	0	2	3	1.0	1.0	0	2	1.0	0.6	2.3
holothuroidea	o	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	2	0	1	3	1.0	1.0	0	2	1.0	0.6	2.3
Mayerella banksia	c	2	0	0	2	0.7	1.0	0	2	1.2	0.7	2.6
Mediomastus sp(p).	p	6	10	1	17	5.7	5.5	1	10	4.5	2.6	10.1
Microspio pigmentata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Monoculodes sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Musculista senhousia	m	2	0	15	17	5.7	7.5	0	15	8.1	4.7	18.3
Nemertea	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Odontosyllis phosphorea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Paratanais? sp.	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Pista alata	p	0	0	4	4	1.3	2.0	0	4	2.3	1.3	5.2
Polydora cornuta	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	5	0	4	9	3.0	2.5	0	5	2.6	1.5	6.0
Pseudopolydora paucibranchiata	p	13	1	23	37	12.3	12.0	1	23	11.0	6.4	24.8
Rudilemboides stenopropodus	c	4	1	0	5	1.7	2.0	0	4	2.1	1.2	4.7
Scolelepis spp. indet.	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Scoletoma sp. 2 (? L. lagunae)	p	1	0	3	4	1.3	1.5	0	3	1.5	0.9	3.4
Scoletoma sp. 2 (? L. lagunae)	p	19	6	21	46	15.3	13.5	6	21	8.1	4.7	18.3
Spionidae, post-larval	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Spiophanes duplex	p	0	0	3	3	1.0	1.5	0	3	1.7	1.0	3.9
Theora lubrica	m	12	3	25	40	13.3	14.0	3	25	11.1	6.4	24.9
Thracia sp.	m	0	0	3	3	1.0	1.5	0	3	1.7	1.0	3.9
Total Crustaceans	**9**	**13**	**3**	**9**	**25**	**8.3**	**8.0**	**3**	**13**	**5.0**	**2.9**	**11.3**
Total Molluscs	**4**	**16**	**3**	**49**	**68**	**22.7**	**26.0**	**3**	**49**	**23.7**	**13.7**	**53.4**
Total Fauna	**35**	**113**	**32**	**190**	**335**	**111.7**	**111.0**	**32**	**190**	**79.0**	**45.6**	**177.8**
Total Species	**35**	**22**	**13**	**29**	**64**	**21.3**	**21.0**	**13**	**29**	**8.0**	**4.6**	**18.0**

Benthic community analysis (reconnaissance)--Number of benthic species—Moss Landing Marine Laboratories

		Number per core			Summary Statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Stat2238												
Acteocina harpa	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Amphissa sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Armandia brevis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Assiminea? californica	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Bivalvia	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Caprella natalensis	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Cylindroleberididae	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Dorvillea longicornis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Eteone spp. indet.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Eupolymnia heterobranchia	p	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Fabricinuda limnicola	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Heterophoxus oculatus	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
holothuroidea	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Leptochelia dubia	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Lyonsia californica	m	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Macoma? sp.	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Mediomastus sp(p).	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Musculista senhousia	m	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Neanthes acuminata	p	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Nudibranchia	m	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Odontosyllis phosphorea	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Ophiuroid	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Paracerceis sculpta	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Paratanais? sp.	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Pherusa cf. negligens	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
phoronida	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Podocerus cristatus	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Pseudopolydora paucibranchiata	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rudilemboides stenopropodus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rutiderma judayi	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Theora lubrica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Thracia sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Total Crustaceans		**9**	**8**	**6**	**6**	**20**	**6.7**	**7.0**	**6**	**8**	**1.2**	**0.7**	**2.6**
Total Molluscs		**10**	**5**	**4**	**5**	**14**	**4.7**	**4.5**	**4**	**5**	**0.6**	**0.3**	**1.3**
Total Fauna		**38**	**29**	**23**	**22**	**74**	**24.7**	**25.5**	**22**	**29**	**3.8**	**2.2**	**8.5**
Total Species		**38**	**29**	**23**	**22**	**74**	**24.7**	**25.5**	**22**	**29**	**3.8**	**2.2**	**8.5**
Stat2240												
Acteocina harpa	m	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Amphideutopus oculatus	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Amphipoda	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Armandia brevis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Brania brevipharyngea	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Campylaspis sculpta	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Diastylis sp.	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Dorvillea longicornis	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Edwardsiid	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Eteone spp. indet.	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Euchone limnicola	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0

Benthic community analysis (reconnaissance)--Number of benthic species—Moss Landing Marine Laboratories

		Number per core			Summary Statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Harmothoe imbricata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Leptochelia dubia	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Lyonsia californica	m	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Macoma? sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Mayerella banksia	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Mediomastus sp(p).	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Musculista senhousia	m	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Neanthes acuminata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Nemertea	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Odontosyllis phosphorea	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Ophiuroid	o	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Paratanais? sp.	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
phoronida	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Pista percyi	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Polydora cornuta	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Pseudopolydora paucibranchiata	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rudilemboides stenopropodus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Scoletoma sp. 1	p	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Theora lubrica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Thracia sp.	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Total Crustaceans	**9**	**6**	**5**	**8**	**19**	**6.3**	**6.5**	**5**	**8**	**1.5**	**0.9**	**3.4**
Total Molluscs	**6**	**2**	**5**	**5**	**12**	**4.0**	**3.5**	**2**	**5**	**1.7**	**1.0**	**3.9**
Total Fauna	**39**	**27**	**22**	**29**	**78**	**26.0**	**25.5**	**22**	**29**	**3.6**	**2.1**	**8.1**
Total Species	**39**	**27**	**22**	**29**	**78**	**26.0**	**25.5**	**22**	**29**	**3.6**	**2.1**	**8.1**
Stat2243												
Acteocina harpa	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Acuminodeutopus oculatus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Americhelidium sp.	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Armandia brevis	p	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Asthenothaerus sp.	m	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Bivalvia	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Campylaspis rubromaculata	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Dorvillea longicornis	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Edwardsiid	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Euchone limnicola	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Exogoninae spp. indet.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Fabricinuda limnicola	p	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Goniada littorea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Leptochelia dubia	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Lyonsia californica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Macoma? sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Mayerella banksia	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Mediomastus sp(p).	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Modiolus? sp.	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Monoculodes sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Musculista senhousia	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Nemertea	o	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Odontosyllis phosphorea	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Paratanais? sp.	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3

Benthic community analysis (reconnaissance)--Number of benthic species—Moss Landing Marine Laboratories

		Number per core			Summary Statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
phoronida	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Pista percyi	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Polydora cornuta	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Prionospio heterobranchia	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Pseudopolydora paucibranchiata	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rudilemboides stenopropodus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rutiderma judayi	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Scolelepis spp. indet.	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Scoletoma sp. 3	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Spiophanes duplex	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Theora lubrica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Thracia sp.	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Total Crustaceans	**10**	**7**	**5**	**7**	**19**	**6.3**	**6.0**	**5**	**7**	**1.2**	**0.7**	**2.6**
Total Molluscs	**9**	**8**	**7**	**8**	**23**	**7.7**	**7.5**	**7**	**8**	**0.6**	**0.3**	**1.3**
Total Fauna	**43**	**30**	**32**	**31**	**93**	**31.0**	**31.0**	**30**	**32**	**1.0**	**0.6**	**2.3**
Total Species	**43**	**30**	**32**	**31**	**93**	**31.0**	**31.0**	**30**	**32**	**1.0**	**0.6**	**2.3**
Stat2433												
Acteocina harpa	m	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Acuminodeutopus oculatus	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Americhelidium sp.	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Ampelisca sp.	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Amphitritinae spp. juv.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Apoprionospio pygmaea	p	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Armandia brevis	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Asthenothaerus sp.	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Brania brevipharyngea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Campylaspis rubromaculata	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Chaetozone corona	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Cossura candida	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
cumacea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Dorvilleidae spp. indet.	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Euchone limnicola	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Euclymeninae spp. indet.	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Euphilomedes carcharodonta	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Exogoninae spp. indet.	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Glycera americana	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Goniada littorea	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Heterophoxus oculatus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Leitoscoloplos pugettensis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Lyonsia californica	m	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Mediomastus sp(p).	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Microspio pigmentata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Monocorophium acherusicum	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Monticellina cryptica	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Nemertea	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Nephtys cornuta	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
oligochaeta	o	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Pennatulacea	o	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Pinnixa sp.	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Pista alata	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Praxillella spp. indet.	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rudilemboides stenopropodus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rutiderma sp.	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 1	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0

Benthic community analysis (reconnaissance)--Number of benthic species—Moss Landing Marine Laboratories

		Number per core			Summary Statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Scoletoma sp. 2 (? L. lagunae)	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Serolis carinata	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Spiophanes duplex	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Tagelus affinis	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Theora lubrica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Typosyllis japonica	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Total Crustaceans	**11**	**4**	**7**	**9**	**20**	**6.7**	**6.5**	**4**	**9**	**2.5**	**1.5**	**5.7**
Total Molluscs	**5**	**4**	**2**	**4**	**10**	**3.3**	**3.0**	**2**	**4**	**1.2**	**0.7**	**2.6**
Total Fauna	**47**	**27**	**31**	**39**	**97**	**32.3**	**33.0**	**27**	**39**	**6.1**	**3.5**	**13.7**
Total Species	**47**	**27**	**31**	**39**	**97**	**32.3**	**33.0**	**27**	**39**	**6.1**	**3.5**	**13.7**
Stat90053												
Acteocina harpa	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Acuminodeutopus oculatus	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Anthozoa	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Armandia brevis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Assiminea? californica	m	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Bemlos audbettius	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Bulla? sp.	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Caprella natalensis	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Diastylis sp.	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Edwardsiid	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Ericthonius sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Euphilomedes carcharodonta	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Eupolymnia heterobranchia	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Fabricinuda limnicola	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Harmothoe imbricata	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Harpacticoids	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Heterophoxus oculatus	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
holothuroidea	o	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Hydrozoa	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Laonice spp. indet.	p	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Leptochelia dubia	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Mediomastus sp(p).	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Monoculodes sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Musculista senhousia	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Neanthes acuminata	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Nemertea	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
oligochaeta	o	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Ophiuroid	o	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Paracerceis sculpta	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Paratanais? sp.	c	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Pherusa cf. negligens	p	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
phoronida	o	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Podocerus cristatus	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Pseudopolydora paucibranchiata	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Pycnogonids	c	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Rudilemboides stenopropodus	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rutiderma judayi	c	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Scoletoma sp. 2 (? L. lagunae)	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Theora lubrica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Total Crustaceans	**17**	**10**	**9**	**8**	**27**	**9.0**	**9.0**	**8**	**10**	**1.0**	**0.6**	**2.3**
Total Mollus cs	**4**	**3**	**4**	**3**	**10**	**3.3**	**3.5**	**3**	**4**	**0.6**	**0.3**	**1.3**
Total Fauna	**44**	**28**	**30**	**28**	**86**	**28.7**	**29.0**	**28**	**30**	**1.2**	**0.7**	**2.6**
Total Species	**44**	**28**	**30**	**28**	**86**	**28.7**	**29.0**	**28**	**30**	**1.2**	**0.7**	**2.6**

Benthic community analysis (reconnaissance)--Number of benthic species—Moss Landing Marine Laboratories

		Number per core			Summary Statistics							
Taxon		**rep 1**	**rep 2**	**rep 3**	**sum**	**mean**	**median**	**min**	**max**	**St. Dev.**	**S.E.**	**95%CL**
Stat93195												
Acteocina harpa	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Acuminodeutopus oculatus	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Americhelidium sp.	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Campylaspis sculpta	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Cirratulidae	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Cylindroleberididae	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Diplocirrus sp. SD1	p	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Dorvillea longicornis	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Eteone spp. indet.	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Euchone limnicola	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Exogone lourei	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Heterophoxus oculatus	c	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
holothuroidea	o	0	1	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Leitoscoloplos pugettensis	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Mayerella banksia	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Mediomastus sp(p).	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Microspio pigmentata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Monoculodes sp.	c	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Musculista senhousia	m	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Nemertea	o	1	0	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Odontosyllis phosphorea	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
oligochaeta	o	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Paratanais? sp.	c	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Pista alata	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Polydora cornuta	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Prionospio heterobranchia	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Pseudopolydora paucibranchiata	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Rudilemboides stenopropodus	c	1	1	0	2	0.7	0.5	0	1	0.6	0.3	1.3
Scolelepis spp. indet.	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Scoletoma sp. 2 (? L. lagunae)	p	1	0	1	2	0.7	0.5	0	1	0.6	0.3	1.3
Scoletoma sp. 2 (? L. lagunae)	p	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Spionidae, post-larval	p	0	1	0	1	0.3	0.5	0	1	0.6	0.3	1.3
Spiophanes duplex	p	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Theora lubrica	m	1	1	1	3	1.0	1.0	1	1	0.0	0.0	0.0
Thracia sp.	m	0	0	1	1	0.3	0.5	0	1	0.6	0.3	1.3
Total Crustaceans		**9**	**7**	**2**	**5**	**14**	**4.7**	**4.5**	**2**	**7**	**2.5**	**1.5**	**5.7**
Total Molluscs		**4**	**3**	**1**	**4**	**8**	**2.7**	**2.5**	**1**	**4**	**1.5**	**0.9**	**3.4**
Total Fauna		**35**	**22**	**13**	**29**	**64**	**21.3**	**21.0**	**13**	**29**	**8.0**	**4.6**	**18.0**
Total Species		**35**	**22**	**13**	**29**	**64**	**21.3**	**21.0**	**13**	**29**	**8.0**	**4.6**	**18.0**

Benthic community analysis (reconnaissance)—Calculated benthic indices—Moss Landing Marine Laboratories

Station	Crust SP	Crust IND	MolSP	Tot SP	Capitella	Oligochaetes	Heterophox	Monoculodes	Acuminodeutopus	crust	moll	ToT SP	neg	pos	Raw index	Scaled index
2238	6.7	24.3	4.7	24.7	0.0	2.7	0.8	0.3	0.4	1.00	0.61	0.76	-0.82	0.44	2.00	0.53
2240	6.3	26.3	4.0	26.0	0.0	0.3	0.5			1.01	0.52	0.80	-0.49	0.00	1.85	0.49
2243	6.3	27.0	7.7	31.0	0.0	0.7	0.6		7.3	0.7	1.02	1.00	0.96	-0.58	0.70	3.10	0.77
2433	6.7	18.3	3.3	32.3	0.0	1.3	0.7	2.0	0.7	0.3	0.5	3.7	0.6	0.91	0.43	1.00	-0.69	1.82	3.47	0.85
90053	9.0	34.3	3.3	28.7	0.0	1.0	0.6	0.7	0.5	0.3	0.5	0.3	0.3	1.38	0.43	0.89	-0.64	1.38	3.45	0.84
93195	4.7	8.3	2.7	21.3	0.0	0.3	0.5	1.0	0.6	0.3	0.5	1.0	0.4	0.56	0.35	0.66	-0.49	1.54	2.62	0.66
max	11.0	61.0	7.7	32.3	3.0	6.0	9.0	4.0	30.0										4.19	
min	1.0	1.0	1.0	2.0															-0.44	
range	10.0	60.0	6.7	30.3																

Appendix B. List of station locations and analyses performed during definitive testing for B Street/Broadway Piers, Downtown Anchorage, and Switzer Creek study sites and reference stations.

Station Code	Station Name	Actual Latitude	Actual Longitude	Toxicity	Bioaccumulation	Sediment Chemistry
SWZ01	Switzer Creek	32° 42.119'	117° 9.495'	x	xxx	x
SWZ02	Switzer Creek	32° 42.104'	117° 9.517'	x	x	x
SWZ03	Switzer Creek	32° 42.099'	117° 9.562'	x		x
SWZ04	Switzer Creek	32° 42.129'	117° 9.512'	x	x	x
SWZ05	Switzer Creek	32° 42.113'	117° 9.528'	x		x
SWZ06	Switzer Creek	32° 42.115'	117° 9.557'	x		x
BST01	B Street	32° 42.968'	117° 10.418'	x	x	x
BST02	B Street	32° 42.965'	117° 10.511'	x		x
BST03	B Street	32° 42.964'	117° 10.601'	x		x
BST04	B Street	32° 42.990'	117° 10.417'	x	xxx	x
BST05	B Street	32° 42.985'	117° 10.514'	x	x	x
BST06	B Street	32° 42.983'	117° 10.602'	x	x	x
BST07	B Street	32° 43.008'	117° 10.419'	x	x	x
BST08	B Street	32° 43.005'	117° 10.513'	x		x
BST09	B Street	32° 43.003'	117° 10.601'	x		x
BST10	B Street	32° 42.955'	117° 10.652'	x		x
BST11	B Street	32° 42.908'	117° 10.649'	x		x
BST12	B Street	32° 42.910'	117° 10.601'	x		x
DAC01	Downtown Anchorage	32° 43.539'	117° 10.475'	x	x	x
DAC02	Downtown Anchorage	32° 43.570'	117° 10.499'	x		x
DAC03	Downtown Anchorage	32° 43.600'	117° 10.547'	x	x	x
DAC04	Downtown Anchorage	32° 43.622'	117° 10.599'	x		x
DAC05	Downtown Anchorage	32° 43.636'	117° 10.654'	x	xxx	x
DAC06	Downtown Anchorage	32° 43.539'	117° 10.548'	x		x
DAC07	Downtown Anchorage	32° 43.566'	117° 10.586'	x	x	x
DAC08	Downtown Anchorage	32° 43.581'	117° 10.629'	x		x
DAC09	Downtown Anchorage	32° 43.540'	117° 10.631'	x	x	x
2238	Reference	32° 37.516'	117° 7.714'	x	x	x
2435	Reference	32° 42.696'	117° 13.373'	x	x	x
2243	Reference	32° 39.867'	117° 8.560'	x	x	x
2433	Reference	32° 43.350'	117° 12.540'	x	x	x
2441	Reference	32° 41.465'	117° 14.278'	x	x	x
2229	Reference	32° 42.534'	117° 10.561'	x	x	x

xxx indicates stations for which three field replicates were sampled and analyzed.

Appendix C. Contact information for participating laboratories.

Analytical chemistry
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Analytical chemistry (TOC for definitive sampling)
TestAmerica Analytical Testing Corporation
Lab Director: Ashley Morris
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Nashville, TN 37204
phone (800) 765-0980
fax (615) 726-3404

Bioaccumulation studies, grain size analyses
AMEC Earth and Environmental
Project Manager: Barry Snyder
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Grain size analyses (for definitive sampling)
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Project Manager: Dr. Ron Kaufmann
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Moss Landing, CA 95039-9647
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fairey@mlml.calstate.edu

Benthic community analysis
Moss Landing Marine Laboratories
Contact: Jim Oakden
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Moss Landing, CA 95039-9647
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Toxicity testing, reporting
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Appendix D. Constituents measured in marine sediments and clam tissues for spatial assessment studies in San Diego Bay.

Analyte	Sediment	Tissue
Metals		
Aluminum (Al)	X	X
Antimony (Sb)	X	X
Arsenic (As)	X	X
Barium (Ba)	X	X
Beryllium (Be)	X	X
Cadmium (Cd)	X	X
Chromium (Cr)	X	X
Cobalt (Co)	X	X
Copper (Cu)	X	X
Iron (Fe)	X	X
Lead (Pb)	X	X
Manganese (Mn)	X	X
Mercury (Hg)	X	X
Molybdenum (Mo)	X	X
Nickel (Ni)	X	X
Selenium (Se)	X	X
Silver (Ag)	X	X
Strontium (Sr)	X	X
Thallium (Tl)	X	X
Tin (Sn)	X	X
Titanium (Ti)	X	X
Vanadium (V)	X	X
Zinc (Zn)	X	X
PAHs		
1-Methylnaphthalene	X	X
1-Methylphenanthrene	X	X
2,3,5-Trimethylnaphthalene	X	X
2,6-Dimethylnaphthalene	X	X
2-Methylnaphthalene	X	X
Acenaphthene	X	X
Acenaphthylene	X	X
Anthracene	X	X
Benz[a]anthracene	X	X
Benzo[a]pyrene	X	X
Benzo[b]fluoranthene	X	X
Benzo[e]pyrene	X	X
Benzo[g,h,i]perylene	X	X
Benzo[k]fluoranthene	X	X
Biphenyl	X	X
Chrysene	X	X
Dibenz[a,h]anthracene	X	X
Fluoranthene	X	X
Fluorene	X	X
Indeno[1,2,3-c,d]pyrene	X	X
Naphthalene	X	X
Perylene	X	X
Phenanthrene	X	X
Pyrene	X	X
Pesticides		
2,4'-DDD	X	X
2,4'-DDE	X	X
2,4'-DDT	X	X
4,4'-DDD	X	X
4,4'-DDE	X	X
4,4'-DDT	X	X
Aldrin	X	X
BHC-alpha	X	X
BHC-beta	X	X
BHC-delta	X	X
BHC-gamma	X	X
Chlordane-alpha	X	X
Chlordane-gamma	X	X
Dieldrin	X	X
Endosulfan Sulfate	X	X
Endosulfan-I	X	X
Endosulfan-II	X	X
Endrin	X	X
Endrin Aldehyde	X	X
Heptachlor	X	X
Heptachlor Epoxide	X	X
Methoxychlor	X	X
Mirex	X	X
Toxaphene	X	X
trans-Nonachlor	X	X
PCBs/Aroclors		
PCB018	X	X
PCB028	X	X
PCB031	X	X
PCB033	X	X
PCB037	X	X
PCB044	X	X
PCB049	X	X
PCB052	X	X
PCB066	X	X
PCB070	X	X
PCB074	X	X
PCB077	X	X
PCB081	X	X
PCB087	X	X
PCB095	X	X
PCB097	X	X
PCB099	X	X
PCB101	X	X
PCB105	X	X
PCB110	X	X
PCB114	X	X
PCB118	X	X
PCB119	X	X
PCB123	X	X
PCB126	X	X
PCB128+167	X	X
PCB138	X	X
PCB141	X	X
PCB149	X	X
PCB151	X	X
PCB153	X	X
PCB156	X	X
PCB157	X	X
PCB158	X	X
PCB168+132	X	X
PCB169	X	X
PCB170	X	X
PCB177	X	X
PCB180	X	X
PCB183	X	X
PCB187	X	X
PCB189	X	X
PCB194	X	X
PCB200	X	X
PCB201	X	X
PCB206	X	X
Aroclor 1016		X
Aroclor 1221		X
Aroclor 1232		X
Aroclor 1242		X
Aroclor 1248		X
Aroclor 1254		X
Aroclor 1260		X
Other		
TOC	X	
Grain size		
Total lipids		X

Appendix E. Quality assurance data for definitive sampling.

Note: All sample replicate data other than TOC are presented with sample data in Appendix F (sediment) and Appendix I (tissue).

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Batch 23103-8130, Replicate MS1, Sample SWZ01						
Antimony	111	2 µg	40-160%	PASS	0.018	
Arsenic	88	2 µg	65-135%	PASS	0.022	
Beryllium	92	2 µg	70-130%	PASS	0.000	
Cadmium	92	2 µg	60-140%	PASS	0.011	
Chromium	91	2 µg	75-125%	PASS	0.043	
Cobalt	92	2 µg	75-125%	PASS	0.011	
Copper	92	2 µg	75-125%	PASS	0.053	
Lead	104	2 µg	75-125%	PASS	0.010	
Molybdenum	104	2 µg	75-125%	PASS	0.019	
Nickel	87	2 µg	75-125%	PASS	0.011	
Selenium	93	2 µg	40-160%	PASS	0.021	
Silver	94	2 µg	75-125%	PASS	0.021	
Tin	119	2 µg	60-140%	PASS	0.017	
Vanadium	91	2 µg	75-125%	PASS	0.032	
Zinc	93	2 µg	75-125%	PASS	0.102	
Batch 23103-8130, Replicate MS2, Sample SWZ01						
Antimony	113	2 µg	40-160%	PASS		
Arsenic	90	2 µg	65-135%	PASS		
Beryllium	92	2 µg	70-130%	PASS		
Cadmium	93	2 µg	60-140%	PASS		
Chromium	95	2 µg	75-125%	PASS		
Cobalt	93	2 µg	75-125%	PASS		
Copper	97	2 µg	75-125%	PASS		
Lead	105	2 µg	75-125%	PASS		
Molybdenum	106	2 µg	75-125%	PASS		
Nickel	88	2 µg	75-125%	PASS		
Selenium	95	2 µg	40-160%	PASS		
Silver	96	2 µg	75-125%	PASS		
Tin	121	2 µg	60-140%	PASS		
Vanadium	94	2 µg	75-125%	PASS		
Zinc	103	2 µg	75-125%	PASS		
Batch 23103-8130, Replicate MS1, Sample DAC04						
Antimony	109	2 µg	40-160%	PASS	0.009	
Arsenic	90	2 µg	65-135%	PASS	0.000	
Barium	113	2 µg	75-125%	PASS	0.000	
Beryllium	96	2 µg	70-130%	PASS	0.010	
Cadmium	93	2 µg	60-140%	PASS	0.011	
Chromium	94	2 µg	75-125%	PASS	0.011	
Cobalt	92	2 µg	75-125%	PASS	0.011	
Copper	95	2 µg	75-125%	PASS	0.010	
Lead	107	2 µg	75-125%	PASS	0.019	
Molybdenum	103	2 µg	75-125%	PASS	0.010	
Nickel	88	2 µg	75-125%	PASS	0.011	
Selenium	98	2 µg	40-160%	PASS	0.000	
Silver	102	2 µg	75-125%	PASS	0.040	
Tin	118	2 µg	60-140%	PASS	0.008	
Zinc	92	2 µg	75-125%	PASS	0.032	

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Batch 23103-8130, Replicate MS2, Sample DAC04						
Antimony	108	2 µg	40-160%	PASS		
Arsenic	90	2 µg	65-135%	PASS		
Barium	113	2 µg	75-125%	PASS		
Beryllium	95	2 µg	70-130%	PASS		
Cadmium	94	2 µg	60-140%	PASS		
Chromium	95	2 µg	75-125%	PASS		
Cobalt	93	2 µg	75-125%	PASS		
Copper	96	2 µg	75-125%	PASS		
Lead	105	2 µg	75-125%	PASS		
Molybdenum	102	2 µg	75-125%	PASS		
Nickel	89	2 µg	75-125%	PASS		
Selenium	98	2 µg	40-160%	PASS		
Silver	98	2 µg	75-125%	PASS		
Tin	119	2 µg	60-140%	PASS		
Vanadium	95	2 µg	75-125%	PASS		
Zinc	95	2 µg	75-125%	PASS		
Batch 23103-8131, Replicate MS1, Sample BST05						
Antimony	113	2 µg	40-160%	PASS	0.000	
Arsenic	90	2 µg	65-135%	PASS	0.000	
Beryllium	85	2 µg	70-130%	PASS	0.012	
Cadmium	93	2 µg	60-140%	PASS	0.000	
Chromium	98	2 µg	75-125%	PASS	0.010	
Cobalt	93	2 µg	75-125%	PASS	0.000	
Copper	100	2 µg	75-125%	PASS	0.020	
Lead	93	2 µg	75-125%	PASS	0.000	
Molybdenum	104	2 µg	75-125%	PASS	0.000	
Nickel	89	2 µg	75-125%	PASS	0.000	
Selenium	97	2 µg	40-160%	PASS	0.000	
Silver	106	2 µg	75-125%	PASS	0.038	
Tin	119	2 µg	60-140%	PASS	0.000	
Vanadium	101	2 µg	75-125%	PASS	0.010	
Zinc	98	2 µg	75-125%	PASS	0.000	
Batch 23103-8131, Replicate MS2, Sample BST05						
Antimony	113	2 µg	40-160%	PASS		
Arsenic	90	2 µg	65-135%	PASS		
Beryllium	84	2 µg	70-130%	PASS		
Cadmium	93	2 µg	60-140%	PASS		
Chromium	97	2 µg	75-125%	PASS		
Cobalt	93	2 µg	75-125%	PASS		
Copper	102	2 µg	75-125%	PASS		
Lead	93	2 µg	75-125%	PASS		
Molybdenum	104	2 µg	75-125%	PASS		
Nickel	89	2 µg	75-125%	PASS		
Selenium	97	2 µg	40-160%	PASS		
Silver	102	2 µg	75-125%	PASS		
Tin	119	2 µg	60-140%	PASS		
Vanadium	100	2 µg	75-125%	PASS		
Zinc	98	2 µg	75-125%	PASS		
Batch 23103-8131, Replicate MS1, Sample BST10						
Antimony	112	2 µg	40-160%	PASS	0.000	
Arsenic	89	2 µg	65-135%	PASS	0.011	
Barium	111	2 µg	75-125%	PASS	0.000	
Beryllium	93	2 µg	70-130%	PASS	0.000	

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Cadmium	92	2 µg	60-140%	PASS	0.011	
Chromium	97	2 µg	75-125%	PASS	0.020	
Cobalt	93	2 µg	75-125%	PASS	0.011	
Copper	99	2 µg	75-125%	PASS	0.030	
Lead	106	2 µg	75-125%	PASS	0.029	
Molybdenum	105	2 µg	75-125%	PASS	0.010	
Nickel	89	2 µg	75-125%	PASS	0.022	
Selenium	96	2 µg	40-160%	PASS	0.000	
Silver	103	2 µg	75-125%	PASS	0.070	
Tin	119	2 µg	60-140%	PASS	0.000	
Vanadium	100	2 µg	75-125%	PASS	0.020	
Zinc	96	2 µg	75-125%	PASS	0.031	
Batch 23103-8131, Replicate MS2, Sample BST10						
Antimony	112	2 µg	40-160%	PASS		
Arsenic	90	2 µg	65-135%	PASS		
Barium	111	2 µg	75-125%	PASS		
Beryllium	93	2 µg	70-130%	PASS		
Cadmium	93	2 µg	60-140%	PASS		
Chromium	99	2 µg	75-125%	PASS		
Cobalt	94	2 µg	75-125%	PASS		
Copper	102	2 µg	75-125%	PASS		
Lead	103	2 µg	75-125%	PASS		
Molybdenum	104	2 µg	75-125%	PASS		
Nickel	91	2 µg	75-125%	PASS		
Selenium	96	2 µg	40-160%	PASS		
Silver	96	2 µg	75-125%	PASS		
Tin	119	2 µg	60-140%	PASS		
Vanadium	102	2 µg	75-125%	PASS		
Zinc	99	2 µg	75-125%	PASS		
Batch 23103-8002, Replicate MS1, Sample DAC06						
(PCB030)	102	400 ng	50-130%	PASS		
(PCB112)	100	400 ng	50-130%	PASS		
(PCB198)	95	400 ng	47-125%	PASS		
(TCMX)	96	400 ng	43-125%	PASS		
2,4'-DDD	107	2500 ng	56-129%	PASS	0.048	
2,4'-DDE	107	2500 ng	60-129%	PASS	0.068	
2,4'-DDT	99	2500 ng	39-130%	PASS	0.041	
4,4'-DDD	106	2500 ng	46-138%	PASS	0.000	
4,4'-DDE	102	2500 ng	69-116%	PASS	0.057	
4,4'-DDT	104	2500 ng	34-136%	PASS	0.039	
Aldrin	109	2500 ng	45-128%	PASS	0.076	
BHC-alpha	98	2500 ng	60-123%	PASS	0.030	
BHC-beta	100	2500 ng	45-140%	PASS	0.041	
BHC-delta	97	2500 ng	29-113%	PASS	0.020	
BHC-gamma	102	2500 ng	59-110%	PASS	0.030	
Chlordane-alpha	92	2500 ng	64-117%	PASS	0.000	
Chlordane-gamma	104	2500 ng	46-125%	PASS	0.133	
Dieldrin	99	2500 ng	46-125%	PASS	0.068	
Endosulfan Sulfate	84	2500 ng	25-104%	PASS	0.058	
Endosulfan-I	98	2500 ng	54-141%	PASS	0.030	
Endosulfan-II	50	2500 ng	MDL-135%	PASS	0.041	
Endrin	103	1000 ng	32-141%	PASS	0.038	
Endrin Aldehyde	0	2500 ng	MDL-49%	PASS	0.000	
Heptachlor	101	2500 ng	43-122%	PASS	0.072	

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Heptachlor Epoxide	95	2500 ng	56-122%	PASS	0.043	
Methoxychlor	100	1000 ng	MDL-157%	PASS	0.077	
Mirex	121	5000 ng	56-123%	PASS	0.008	
trans-Nonachlor	82	2500 ng	47-143%	PASS	0.036	
Batch 23103-8002, Replicate MS2, Sample DAC06						
(PCB030)	78	400 ng	50-130%	PASS		
(PCB112)	100	400 ng	50-130%	PASS		
(PCB198)	106	400 ng	47-125%	PASS		
(TCMX)	89	400 ng	43-125%	PASS		
2,4'-DDD	102	2500 ng	56-129%	PASS		
2,4'-DDE	100	2500 ng	60-129%	PASS		
2,4'-DDT	95	2500 ng	39-130%	PASS		
4,4'-DDD	106	2500 ng	46-138%	PASS		
4,4'-DDE	108	2500 ng	69-116%	PASS		
4,4'-DDT	100	2500 ng	34-136%	PASS		
Aldrin	101	2500 ng	45-128%	PASS		
BHC-alpha	101	2500 ng	60-123%	PASS		
BHC-beta	96	2500 ng	45-140%	PASS		
BHC-delta	99	2500 ng	29-113%	PASS		
BHC-gamma	99	2500 ng	59-110%	PASS		
Chlordane-alpha	92	2500 ng	64-117%	PASS		
Chlordane-gamma	91	2500 ng	46-125%	PASS		
Dieldrin	106	2500 ng	46-125%	PASS		
Endosulfan Sulfate	89	2500 ng	25-104%	PASS		
Endosulfan-I	101	2500 ng	54-141%	PASS		
Endosulfan-II	48	2500 ng	MDL-135%	PASS		
Endrin	107	1000 ng	32-141%	PASS		
Endrin Aldehyde	0	2500 ng	MDL-49%	PASS		
Heptachlor	94	2500 ng	43-122%	PASS		
Heptachlor Epoxide	91	2500 ng	56-122%	PASS		
Methoxychlor	108	1000 ng	MDL-157%	PASS		
Mirex	120	5000 ng	56-123%	PASS		
trans-Nonachlor	85	2500 ng	47-143%	PASS		
Batch 23103-8004, Replicate MS1, Sample 2229						
(PCB030)	89	400 ng	50-130%	PASS		
(PCB112)	75	400 ng	50-130%	PASS		
(PCB198)	85	400 ng	47-125%	PASS		
(TCMX)	90	400 ng	43-125%	PASS		
2,4'-DDD	85	2500 ng	56-129%	PASS	0.035	
2,4'-DDE	88	2500 ng	60-129%	PASS	0.095	
2,4'-DDT	72	2500 ng	39-130%	PASS	0.166	
4,4'-DDD	87	2500 ng	46-138%	PASS	0.035	
4,4'-DDE	91	2500 ng	69-116%	PASS	0.129	
4,4'-DDT	78	2500 ng	34-136%	PASS	0.038	
Aldrin	89	2500 ng	45-128%	PASS	0.082	
BHC-alpha	82	2500 ng	60-123%	PASS	0.050	
BHC-beta	60	2500 ng	45-140%	PASS	0.017	
BHC-delta	77	2500 ng	29-113%	PASS	0.000	
BHC-gamma	85	2500 ng	59-110%	PASS	0.024	
Chlordane-alpha	67	2500 ng	64-117%	PASS	0.000	
Chlordane-gamma	72	2500 ng	46-125%	PASS	0.043	
Dieldrin	91	2500 ng	46-125%	PASS	0.129	
Endosulfan Sulfate	62	2500 ng	25-104%	PASS	0.163	
Endosulfan-I	88	2500 ng	54-141%	PASS	0.286	x

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Endosulfan-II	71	2500 ng	MDL-135%	PASS	0.073	
Endrin	86	1000 ng	32-141%	PASS	0.089	
Endrin Aldehyde	0	2500 ng	MDL-49%	PASS	0.000	
Heptachlor	89	2500 ng	43-122%	PASS	0.058	
Heptachlor Epoxide	68	2500 ng	56-122%	PASS	0.176	
Methoxychlor	80	1000 ng	MDL-157%	PASS	0.025	
Mirex	93	5000 ng	56-123%	PASS	0.042	
trans-Nonachlor	50	2500 ng	47-143%	PASS	0.062	
Batch 23103-8004, Replicate MS2, Sample 2229						
(PCB030)	77	400 ng	50-130%	PASS		
(PCB112)	86	400 ng	50-130%	PASS		
(PCB198)	83	400 ng	47-125%	PASS		
(TCMX)	82	400 ng	43-125%	PASS		
2,4'-DDD	88	2500 ng	56-129%	PASS		
2,4'-DDE	80	2500 ng	60-129%	PASS		
2,4'-DDT	85	2500 ng	39-130%	PASS		
4,4'-DDD	84	2500 ng	46-138%	PASS		
4,4'-DDE	80	2500 ng	69-116%	PASS		
4,4'-DDT	81	2500 ng	34-136%	PASS		
Aldrin	82	2500 ng	45-128%	PASS		
BHC-alpha	78	2500 ng	60-123%	PASS		
BHC-beta	59	2500 ng	45-140%	PASS		
BHC-delta	77	2500 ng	29-113%	PASS		
BHC-gamma	83	2500 ng	59-110%	PASS		
Chlordane-alpha	67	2500 ng	64-117%	PASS		
Chlordane-gamma	69	2500 ng	46-125%	PASS		
Dieldrin	80	2500 ng	46-125%	PASS		
Endosulfan Sulfate	73	2500 ng	25-104%	PASS		
Endosulfan-I	66	2500 ng	54-141%	PASS		
Endosulfan-II	66	2500 ng	MDL-135%	PASS		
Endrin	94	1000 ng	32-141%	PASS		
Endrin Aldehyde	0	2500 ng	MDL-49%	PASS		
Heptachlor	84	2500 ng	43-122%	PASS		
Heptachlor Epoxide	57	2500 ng	56-122%	PASS		
Methoxychlor	82	1000 ng	MDL-157%	PASS		
Mirex	97	5000 ng	56-123%	PASS		
trans-Nonachlor	47	2500 ng	47-143%	PASS		
Batch 23103-8006, Replicate MS1, Sample BST12						
(PCB030)	75	400 ng	50-130%	PASS		
(PCB112)	76	400 ng	50-130%	PASS		
(PCB198)	58	400 ng	47-125%	PASS		
(TCMX)	75	400 ng	43-125%	PASS		
2,4'-DDD	77	2500 ng	56-129%	PASS	0.110	
2,4'-DDE	82	2500 ng	60-129%	PASS	0.130	
2,4'-DDT	72	2500 ng	39-130%	PASS	0.057	
4,4'-DDD	75	2500 ng	46-138%	PASS	0.098	
4,4'-DDE	71	2500 ng	69-116%	PASS	0.132	
4,4'-DDT	63	2500 ng	34-136%	PASS	0.250	
Aldrin	74	2500 ng	45-128%	PASS	0.065	
BHC-alpha	93	2500 ng	60-123%	PASS	0.114	
BHC-beta	92	2500 ng	45-140%	PASS	0.056	
BHC-delta	93	2500 ng	29-113%	PASS	0.055	
BHC-gamma	97	2500 ng	59-110%	PASS	0.168	
Chlordane-alpha	64	2500 ng	64-117%	PASS	0.000	

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Chlordane-gamma	67	2500 ng	46-125%	PASS	0.078	
Dieldrin	84	2500 ng	46-125%	PASS	0.049	
Endosulfan Sulfate	82	2500 ng	25-104%	PASS	0.231	
Endosulfan-I	60	2500 ng	54-141%	PASS	0.195	
Endosulfan-II	41	2500 ng	MDL-135%	PASS	0.376	x
Endrin	82	1000 ng	32-141%	PASS	0.000	
Endrin Aldehyde	0	2500 ng	MDL-49%	PASS	0.000	
Heptachlor	72	2500 ng	43-122%	PASS	0.244	
Heptachlor Epoxide	62	2500 ng	56-122%	PASS	0.102	
Methoxychlor	79	1000 ng	MDL-157%	PASS	0.049	
Mirex	93	5000 ng	56-123%	PASS	0.022	
trans-Nonachlor	51	2500 ng	47-143%	PASS	0.082	
Batch 23103-8006, Replicate MS2, Sample BST12						
(PCB030)	63	400 ng	50-130%	PASS		
(PCB112)	75	400 ng	50-130%	PASS		
(PCB198)	57	400 ng	47-125%	PASS		
(TCMX)	86	400 ng	43-125%	PASS		
2,4'-DDD	86	2500 ng	56-129%	PASS		
2,4'-DDE	72	2500 ng	60-129%	PASS		
2,4'-DDT	68	2500 ng	39-130%	PASS		
4,4'-DDD	68	2500 ng	46-138%	PASS		
4,4'-DDE	81	2500 ng	69-116%	PASS		
4,4'-DDT	81	2500 ng	34-136%	PASS		
Aldrin	79	2500 ng	45-128%	PASS		
BHC-alpha	83	2500 ng	60-123%	PASS		
BHC-beta	87	2500 ng	45-140%	PASS		
BHC-delta	88	2500 ng	29-113%	PASS		
BHC-gamma	82	2500 ng	59-110%	PASS		
Chlordane-alpha	64	2500 ng	64-117%	PASS		
Chlordane-gamma	62	2500 ng	46-125%	PASS		
Dieldrin	80	2500 ng	46-125%	PASS		
Endosulfan Sulfate	65	2500 ng	25-104%	PASS		
Endosulfan-I	73	2500 ng	54-141%	PASS		
Endosulfan-II	60	2500 ng	MDL-135%	PASS		
Endrin	82	1000 ng	32-141%	PASS		
Endrin Aldehyde	0	2500 ng	MDL-49%	PASS		
Heptachlor	92	2500 ng	43-122%	PASS		
Heptachlor Epoxide	56	2500 ng	56-122%	PASS		
Methoxychlor	83	1000 ng	MDL-157%	PASS		
Mirex	91	5000 ng	56-123%	PASS		
trans-Nonachlor	47	2500 ng	47-143%	PASS		
Batch 23103-8002, Replicate MS1, Sample DAC06						
PCB018	103	400 ng	65-135%	PASS	0.124	
PCB028	112	400 ng	65-135%	PASS	0.084	
PCB031	114	400 ng	65-135%	PASS	0.063	
PCB033	98	400 ng	65-135%	PASS	0.010	
PCB037	113	400 ng	65-135%	PASS	0.102	
PCB044	100	400 ng	65-135%	PASS	0.041	
PCB049	113	400 ng	65-135%	PASS	0.093	
PCB052	110	400 ng	65-135%	PASS	0.018	
PCB066	113	400 ng	65-135%	PASS	0.068	
PCB070	115	400 ng	65-135%	PASS	0.043	
PCB074	120	400 ng	65-135%	PASS	0.069	
PCB077	125	400 ng	65-135%	PASS	0.000	

Sediment chemistry data (definitive)–Matrix Spikes – CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
PCB081	123	400 ng	65-135%	PASS	0.033	
PCB087	115	400 ng	65-135%	PASS	0.067	
PCB095	118	400 ng	65-135%	PASS	0.008	
PCB097	111	400 ng	65-135%	PASS	0.119	
PCB099	123	400 ng	65-135%	PASS	0.139	
PCB101	106	400 ng	65-135%	PASS	0.000	
PCB105	119	400 ng	65-135%	PASS	0.017	
PCB110	113	400 ng	65-135%	PASS	0.043	
PCB114	114	400 ng	65-135%	PASS	0.009	
PCB118	112	400 ng	65-135%	PASS	0.055	
PCB119	104	400 ng	65-135%	PASS	0.019	
PCB123	122	400 ng	65-135%	PASS	0.032	
PCB126	106	400 ng	65-135%	PASS	0.180	
PCB128+167	96	800 ng	65-135%	PASS	0.171	
PCB141	94	400 ng	65-135%	PASS	0.000	
PCB149	117	400 ng	65-135%	PASS	0.050	
PCB151	91	400 ng	65-135%	PASS	0.133	
PCB153	131	400 ng	65-135%	PASS	0.031	
PCB156	110	400 ng	65-135%	PASS	0.143	
PCB157	120	400 ng	65-135%	PASS	0.072	
PCB158	91	400 ng	65-135%	PASS	0.291	x
PCB168+132	105	800 ng	65-135%	PASS	0.121	
PCB169	128	400 ng	65-135%	PASS	0.040	
PCB170	99	400 ng	65-135%	PASS	0.132	
PCB177	131	400 ng	65-135%	PASS	0.023	
PCB180	99	400 ng	65-135%	PASS	0.095	
PCB183	79	400 ng	65-135%	PASS	0.235	
PCB187	98	400 ng	65-135%	PASS	0.258	x
PCB189	66	400 ng	65-135%	PASS	0.491	x
PCB194	98	400 ng	65-135%	PASS		
Batch 23103-8002, Replicate MS2, Sample DAC06						
PCB018	91	400 ng	65-135%	PASS		
PCB028	103	400 ng	65-135%	PASS		
PCB031	107	400 ng	65-135%	PASS		
PCB033	97	400 ng	65-135%	PASS		
PCB037	102	400 ng	65-135%	PASS		
PCB044	96	400 ng	65-135%	PASS		
PCB049	124	400 ng	65-135%	PASS		
PCB052	112	400 ng	65-135%	PASS		
PCB066	121	400 ng	65-135%	PASS		
PCB070	120	400 ng	65-135%	PASS		
PCB074	112	400 ng	65-135%	PASS		
PCB077	125	400 ng	65-135%	PASS		
PCB081	119	400 ng	65-135%	PASS		
PCB087	123	400 ng	65-135%	PASS		
PCB095	119	400 ng	65-135%	PASS		
PCB097	125	400 ng	65-135%	PASS		
PCB099	107	400 ng	65-135%	PASS		
PCB101	106	400 ng	65-135%	PASS		
PCB105	121	400 ng	65-135%	PASS		
PCB110	118	400 ng	65-135%	PASS		
PCB114	115	400 ng	65-135%	PASS		
PCB118	106	400 ng	65-135%	PASS		
PCB119	106	400 ng	65-135%	PASS		

Sediment chemistry data (definitive)–Matrix Spikes – CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
PCB123	126	400 ng	65-135%	PASS		
PCB126	127	400 ng	65-135%	PASS		
PCB128+167	114	800 ng	65-135%	PASS		
PCB138	124	400 ng	65-135%	PASS		
PCB141	94	400 ng	65-135%	PASS		
PCB149	123	400 ng	65-135%	PASS		
PCB151	104	400 ng	65-135%	PASS		
PCB153	127	400 ng	65-135%	PASS		
PCB156	127	400 ng	65-135%	PASS		
PCB157	129	400 ng	65-135%	PASS		
PCB158	122	400 ng	65-135%	PASS		
PCB168+132	93	800 ng	65-135%	PASS		
PCB169	123	400 ng	65-135%	PASS		
PCB170	113	400 ng	65-135%	PASS		
PCB177	128	400 ng	65-135%	PASS		
PCB180	90	400 ng	65-135%	PASS		
PCB183	100	400 ng	65-135%	PASS		
PCB187	127	400 ng	65-135%	PASS		
PCB189	109	400 ng	65-135%	PASS		
PCB201	95	400 ng	65-135%	PASS		
Batch 23103-8004, Replicate MS1, Sample 2229						
PCB018	83	400 ng	65-135%	PASS	0.012	
PCB028	109	400 ng	65-135%	PASS	0.295	x
PCB031	107	400 ng	65-135%	PASS	0.241	
PCB033	92	400 ng	65-135%	PASS	0.044	
PCB037	95	400 ng	65-135%	PASS	0.099	
PCB044	73	400 ng	65-135%	PASS		
PCB049	79	400 ng	65-135%	PASS	0.079	
PCB052	80	400 ng	65-135%	PASS	0.038	
PCB066	81	400 ng	65-135%	PASS	0.149	
PCB070	91	400 ng	65-135%	PASS	0.056	
PCB074	89	400 ng	65-135%	PASS	0.253	x
PCB077	111	400 ng	65-135%	PASS	0.027	
PCB081	103	400 ng	65-135%	PASS	0.050	
PCB087	80	400 ng	65-135%	PASS	0.107	
PCB095	70	400 ng	65-135%	PASS	0.029	
PCB097	98	400 ng	65-135%	PASS	0.074	
PCB099	84	400 ng	65-135%	PASS	0.047	
PCB101	79	400 ng	65-135%	PASS	0.152	
PCB105	81	400 ng	65-135%	PASS		
PCB110	94	400 ng	65-135%	PASS	0.077	
PCB114	73	400 ng	65-135%	PASS	0.272	x
PCB118	89	400 ng	65-135%	PASS	0.116	
PCB119	88	400 ng	65-135%	PASS	0.160	
PCB123	85	400 ng	65-135%	PASS	0.073	
PCB126	89	400 ng	65-135%	PASS	0.282	x
PCB128+167	68	800 ng	65-135%	PASS	0.187	
PCB138	66	400 ng	65-135%	PASS	0.114	
PCB153	67	400 ng	65-135%	PASS		
PCB156	69	400 ng	65-135%	PASS	0.296	x
PCB157	74	400 ng	65-135%	PASS	0.070	
PCB158	98	400 ng	65-135%	PASS	0.240	
PCB168+132	73	800 ng	65-135%	PASS	0.056	
PCB180	68	400 ng	65-135%	PASS		

Sediment chemistry data (definitive)–Matrix Spikes – CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Batch 23103-8004, Replicate MS2, Sample 2229						
PCB018	82	400 ng	65-135%	PASS		
PCB028	81	400 ng	65-135%	PASS		
PCB031	84	400 ng	65-135%	PASS		
PCB033	88	400 ng	65-135%	PASS		
PCB037	86	400 ng	65-135%	PASS		
PCB049	73	400 ng	65-135%	PASS		
PCB052	77	400 ng	65-135%	PASS		
PCB066	94	400 ng	65-135%	PASS		
PCB070	86	400 ng	65-135%	PASS		
PCB074	69	400 ng	65-135%	PASS		
PCB077	108	400 ng	65-135%	PASS		
PCB081	98	400 ng	65-135%	PASS		
PCB087	89	400 ng	65-135%	PASS		
PCB095	68	400 ng	65-135%	PASS		
PCB097	91	400 ng	65-135%	PASS		
PCB099	88	400 ng	65-135%	PASS		
PCB101	92	400 ng	65-135%	PASS		
PCB110	87	400 ng	65-135%	PASS		
PCB114	96	400 ng	65-135%	PASS		
PCB118	100	400 ng	65-135%	PASS		
PCB119	75	400 ng	65-135%	PASS		
PCB123	79	400 ng	65-135%	PASS		
PCB126	67	400 ng	65-135%	PASS		
PCB128+167	82	800 ng	65-135%	PASS		
PCB138	74	400 ng	65-135%	PASS		
PCB156	93	400 ng	65-135%	PASS		
PCB157	69	400 ng	65-135%	PASS		
PCB158	77	400 ng	65-135%	PASS		
PCB168+132	69	800 ng	65-135%	PASS		
Batch 23103-8006, Replicate MS1, Sample BST12						
PCB018	70	400 ng	65-135%	PASS	0.133	
PCB028	114	400 ng	65-135%	PASS	0.151	
PCB031	99	400 ng	65-135%	PASS	0.095	
PCB033	88	400 ng	65-135%	PASS	0.023	
PCB037	91	400 ng	65-135%	PASS	0.022	
PCB044	74	400 ng	65-135%	PASS		
PCB052	68	400 ng	65-135%	PASS	0.043	
PCB066	92	400 ng	65-135%	PASS		
PCB070	92	400 ng	65-135%	PASS	0.258	x
PCB074	91	400 ng	65-135%	PASS	0.154	
PCB077	86	400 ng	65-135%	PASS	0.120	
PCB081	71	400 ng	65-135%	PASS	0.028	
PCB099	77	400 ng	65-135%	PASS	0.169	
PCB105	65	400 ng	65-135%	PASS	0.000	
PCB110	73	400 ng	65-135%	PASS	0.028	
PCB119	76	400 ng	65-135%	PASS		
PCB126	67	400 ng	65-135%	PASS		
Batch 23103-8006, Replicate MS2, Sample BST12						
PCB018	80	400 ng	65-135%	PASS		
PCB028	98	400 ng	65-135%	PASS		
PCB031	90	400 ng	65-135%	PASS		
PCB033	86	400 ng	65-135%	PASS		
PCB037	89	400 ng	65-135%	PASS		

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
PCB049	70	400 ng	65-135%	PASS		
PCB052	71	400 ng	65-135%	PASS		
PCB070	71	400 ng	65-135%	PASS		
PCB074	78	400 ng	65-135%	PASS		
PCB077	97	400 ng	65-135%	PASS		
PCB081	73	400 ng	65-135%	PASS		
PCB099	65	400 ng	65-135%	PASS		
PCB101	66	400 ng	65-135%	PASS		
PCB105	65	400 ng	65-135%	PASS		
PCB110	71	400 ng	65-135%	PASS		
PCB118	71	400 ng	65-135%	PASS		
Batch 23103-8002, Replicate MS1, Sample DAC06						
(d10-Acenaphthene)	101	4000 ng	47-119%	PASS		
(d10-Phenanthrene)	100	4000 ng	45-125%	PASS		
(d12-Chrysene)	105	4000 ng	44-128%	PASS		
(d12-Perylene)	102	4000 ng	46-135%	PASS		
(d8-Naphthalene)	55	4000 ng	20-97%	PASS		
1-Methylnaphthalene	75	655 ng	50-120%	PASS	0.098	
1-Methylphenanthrene	105	650 ng	70-130%	PASS	0.211	
2,3,5-Trimethylnaphthalene	105	584 ng	70-130%	PASS	0.121	
2,6-Dimethylnaphthalene	77	656 ng	70-130%	PASS	0.038	
2-Methylnaphthalene	76	642 ng	50-120%	PASS	0.082	
Acenaphthene	81	10715 ng	70-130%	PASS	0.038	
Acenaphthylene	75	632 ng	70-130%	PASS	0.101	
Anthracene	100	497.5 ng	70-130%	PASS	0.062	
Benz[a]anthracene	129	571 ng	70-130%	PASS	0.150	
Benzo[a]pyrene	127	597.2 ng	70-130%	PASS	0.153	
Benzo[b]fluoranthene	91	656.8 ng	70-130%	PASS	0.207	
Benzo[e]pyrene	111	656.9 ng	70-130%	PASS	0.000	
Benzo[g,h,i]perylene	124	587 ng	70-130%	PASS	0.067	
Benzo[k]fluoranthene	94	654.2 ng	70-130%	PASS	0.201	
Biphenyl	65	658.4 ng	50-120%	PASS	0.000	
Chrysene	89	662 ng	70-130%	PASS	0.165	
Dibenz[a,h]anthracene	105	493 ng	70-130%	PASS	0.150	
Fluoranthene	107	659.8 ng	70-130%	PASS	0.194	
Fluorene	92	653.8 ng	70-130%	PASS	0.053	
Indeno[1,2,3-c,d]pyrene	103	583 ng	70-130%	PASS	0.010	
Naphthalene	59	660 ng	50-120%	PASS	0.081	
Perylene	83	496.9 ng	70-130%	PASS	0.234	
Phenanthrene	85	657.2 ng	70-130%	PASS	0.112	
Pyrene	116	10696.9 ng	70-130%	PASS	0.017	
Batch 23103-8002, Replicate MS2, Sample DAC06						
(d10-Acenaphthene)	102	4000 ng	47-119%	PASS		
(d10-Phenanthrene)	99	4000 ng	45-125%	PASS		
(d12-Chrysene)	102	4000 ng	44-128%	PASS		
(d12-Perylene)	103	4000 ng	46-135%	PASS		
(d8-Naphthalene)	68	4000 ng	20-97%	PASS		
1-Methylnaphthalene	68	655 ng	50-120%	PASS		
1-Methylphenanthrene	85	650 ng	70-130%	PASS		
2,3,5-Trimethylnaphthalene	93	584 ng	70-130%	PASS		
2,6-Dimethylnaphthalene	80	656 ng	70-130%	PASS		
2-Methylnaphthalene	70	642 ng	50-120%	PASS		
Acenaphthene	78	10715 ng	70-130%	PASS		
Acenaphthylene	83	632 ng	70-130%	PASS		

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
Anthracene	94	497.5 ng	70-130%	PASS		
Benz[a]anthracene	111	571 ng	70-130%	PASS		
Benzo[a]pyrene	109	597.2 ng	70-130%	PASS		
Benzo[b]fluoranthene	112	656.8 ng	70-130%	PASS		
Benzo[e]pyrene	111	656.9 ng	70-130%	PASS		
Benzo[g,h,i]perylene	116	587 ng	70-130%	PASS		
Benzo[k]fluoranthene	115	654.2 ng	70-130%	PASS		
Biphenyl	65	658.4 ng	50-120%	PASS		
Chrysene	105	662 ng	70-130%	PASS		
Dibenz[a,h]anthracene	122	493 ng	70-130%	PASS		
Fluoranthene	130	659.8 ng	70-130%	PASS		
Fluorene	97	653.8 ng	70-130%	PASS		
Indeno[1,2,3-c,d]pyrene	104	583 ng	70-130%	PASS		
Naphthalene	64	660 ng	50-120%	PASS		
Perylene	105	496.9 ng	70-130%	PASS		
Phenanthrene	76	657.2 ng	70-130%	PASS		
Pyrene	118	10696.9 ng	70-130%	PASS		
Batch 23103-8004, Replicate MS1, Sample 2229						
(d10-Acenaphthene)	70	4000 ng	47-119%	PASS		
(d10-Phenanthrene)	87	4000 ng	45-125%	PASS		
(d12-Chrysene)	101	4000 ng	44-128%	PASS		
(d12-Perylene)	105	4000 ng	46-135%	PASS		
(d8-Naphthalene)	57	4000 ng	20-97%	PASS		
1-Methylnaphthalene	78	655 ng	50-120%	PASS	0.013	
1-Methylphenanthrene	110	650 ng	70-130%	PASS	0.126	
2,3,5-Trimethylnaphthalene	87	584 ng	70-130%	PASS	0.012	
2,6-Dimethylnaphthalene	76	656 ng	70-130%	PASS	0.068	
2-Methylnaphthalene	69	642 ng	50-120%	PASS	0.156	
Acenaphthene	77	10715 ng	70-130%	PASS	0.013	
Acenaphthylene	99	632 ng	70-130%	PASS	0.164	
Anthracene	125	497.5 ng	70-130%	PASS	0.252	x
Benz[a]anthracene	128	571 ng	70-130%	PASS	0.197	
Benzo[a]pyrene	124	597.2 ng	70-130%	PASS	0.157	
Benzo[b]fluoranthene	128	656.8 ng	70-130%	PASS	0.081	
Benzo[e]pyrene	119	656.9 ng	70-130%	PASS	0.256	x
Benzo[g,h,i]perylene	109	587 ng	70-130%	PASS	0.271	x
Benzo[k]fluoranthene	125	654.2 ng	70-130%	PASS	0.092	
Biphenyl	59	658.4 ng	50-120%	PASS	0.033	
Chrysene	123	662 ng	70-130%	PASS	0.040	
Dibenz[a,h]anthracene	118	493 ng	70-130%	PASS	0.073	
Fluoranthene	127	659.8 ng	70-130%	PASS	0.566	x
Fluorene	88	653.8 ng	70-130%	PASS	0.047	
Indeno[1,2,3-c,d]pyrene	114	583 ng	70-130%	PASS	0.084	
Naphthalene	62	660 ng	50-120%	PASS	0.216	
Perylene	121	496.9 ng	70-130%	PASS	0.008	
Phenanthrene	127	657.2 ng	70-130%	PASS	0.209	
Pyrene	115	10696.9 ng	70-130%	PASS	0.486	x
Batch 23103-8004, Replicate MS2, Sample 2229						
(d10-Acenaphthene)	78	4000 ng	47-119%	PASS		
(d10-Phenanthrene)	101	4000 ng	45-125%	PASS		
(d12-Chrysene)	107	4000 ng	44-128%	PASS		
(d12-Perylene)	107	4000 ng	46-135%	PASS		
(d8-Naphthalene)	57	4000 ng	20-97%	PASS		
1-Methylnaphthalene	77	655 ng	50-120%	PASS		

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
1-Methylphenanthrene	97	650 ng	70-130%	PASS		
2,3,5-Trimethylnaphthalene	86	584 ng	70-130%	PASS		
2,6-Dimethylnaphthalene	71	656 ng	70-130%	PASS		
2-Methylnaphthalene	59	642 ng	50-120%	PASS		
Acenaphthene	78	10715 ng	70-130%	PASS		
Acenaphthylene	84	632 ng	70-130%	PASS		
Anthracene	97	497.5 ng	70-130%	PASS		
Benz[a]anthracene	105	571 ng	70-130%	PASS		
Benzo[a]pyrene	106	597.2 ng	70-130%	PASS		
Benzo[b]fluoranthene	118	656.8 ng	70-130%	PASS		
Benzo[e]pyrene	92	656.9 ng	70-130%	PASS		
Benzo[g,h,i]perylene	83	587 ng	70-130%	PASS		
Benzo[k]fluoranthene	114	654.2 ng	70-130%	PASS		
Biphenyl	61	658.4 ng	50-120%	PASS		
Chrysene	128	662 ng	70-130%	PASS		
Dibenz[a,h]anthracene	127	493 ng	70-130%	PASS		
Fluoranthene	71	659.8 ng	70-130%	PASS		
Fluorene	84	653.8 ng	70-130%	PASS		
Indeno[1,2,3-c,d]pyrene	124	583 ng	70-130%	PASS		
Naphthalene	77	660 ng	50-120%	PASS		
Perylene	120	496.9 ng	70-130%	PASS		
Phenanthrene	103	657.2 ng	70-130%	PASS		
Pyrene	70	10696.9 ng	70-130%	PASS		
Batch 23103-8006, Replicate MS1, Sample BST12						
(d10-Acenaphthene)	67	4000 ng	47-119%	PASS		
(d10-Phenanthrene)	91	4000 ng	45-125%	PASS		
(d12-Chrysene)	94	4000 ng	44-128%	PASS		
(d12-Perylene)	108	4000 ng	46-135%	PASS		
(d8-Naphthalene)	52	4000 ng	20-97%	PASS		
1-Methylnaphthalene	50	655 ng	50-120%	PASS	0.214	
1-Methylphenanthrene	88	650 ng	70-130%	PASS	0.097	
2,3,5-Trimethylnaphthalene	77	584 ng	70-130%	PASS	0.099	
2,6-Dimethylnaphthalene	70	656 ng	70-130%	PASS	0.158	
2-Methylnaphthalene	50	642 ng	50-120%	PASS	0.148	
Acenaphthene	70	10715 ng	70-130%	PASS	0.121	
Acenaphthylene	73	632 ng	70-130%	PASS	0.116	
Anthracene	117	497.5 ng	70-130%	PASS	0.035	
Benzo[a]pyrene	122	597.2 ng	70-130%	PASS	0.059	
Benzo[b]fluoranthene	121	656.8 ng	70-130%	PASS	0.025	
Benzo[e]pyrene	114	656.9 ng	70-130%	PASS	0.280	x
Benzo[g,h,i]perylene	120	587 ng	70-130%	PASS	0.025	
Benzo[k]fluoranthene	118	654.2 ng	70-130%	PASS	0.408	x
Biphenyl	76	658.4 ng	50-120%	PASS	0.156	
Chrysene	118	662 ng	70-130%	PASS	0.421	x
Dibenz[a,h]anthracene	128	493 ng	70-130%	PASS	0.179	
Fluoranthene	116	659.8 ng	70-130%	PASS	0.379	x
Fluorene	76	653.8 ng	70-130%	PASS	0.263	x
Indeno[1,2,3-c,d]pyrene	78	583 ng	70-130%	PASS	0.383	x
Naphthalene	50	660 ng	50-120%	PASS	0.058	
Perylene	119	496.9 ng	70-130%	PASS	0.034	
Phenanthrene	75	657.2 ng	70-130%	PASS	0.522	x
Pyrene	110	10696.9 ng	70-130%	PASS	0.151	
Batch 23103-8006, Replicate MS2, Sample BST12						
(d10-Acenaphthene)	71	4000 ng	47-119%	PASS		

Sediment chemistry data (definitive)–Matrix Spikes–CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1, MS2	RPD > 25%
(d10-Phenanthrene)	94	4000 ng	45-125%	PASS		
(d12-Chrysene)	98	4000 ng	44-128%	PASS		
(d12-Perylene)	110	4000 ng	46-135%	PASS		
(d8-Naphthalene)	49	4000 ng	20-97%	PASS		
1-Methylnaphthalene	62	655 ng	50-120%	PASS		
1-Methylphenanthrene	97	650 ng	70-130%	PASS		
2,3,5-Trimethylnaphthalene	85	584 ng	70-130%	PASS		
2,6-Dimethylnaphthalene	82	656 ng	70-130%	PASS		
2-Methylnaphthalene	58	642 ng	50-120%	PASS		
Acenaphthene	79	10715 ng	70-130%	PASS		
Acenaphthylene	82	632 ng	70-130%	PASS		
Anthracene	113	497.5 ng	70-130%	PASS		
Benzo[a]pyrene	115	597.2 ng	70-130%	PASS		
Benzo[b]fluoranthene	118	656.8 ng	70-130%	PASS		
Benzo[e]pyrene	86	656.9 ng	70-130%	PASS		
Benzo[g,h,i]perylene	117	587 ng	70-130%	PASS		
Benzo[k]fluoranthene	78	654.2 ng	70-130%	PASS		
Biphenyl	65	658.4 ng	50-120%	PASS		
Chrysene	77	662 ng	70-130%	PASS		
Dibenz[a,h]anthracene	107	493 ng	70-130%	PASS		
Fluoranthene	79	659.8 ng	70-130%	PASS		
Fluorene	99	653.8 ng	70-130%	PASS		
Indeno[1,2,3-c,d]pyrene	115	583 ng	70-130%	PASS		
Naphthalene	53	660 ng	50-120%	PASS		
Perylene	115	496.9 ng	70-130%	PASS		
Phenanthrene	128	657.2 ng	70-130%	PASS		
Pyrene	128	10696.9 ng	70-130%	PASS		

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
Batch 23103-9003, Replicate MS1, Sample 2229					
Antimony	98	2 µg	40-160%	PASS	0.010
Arsenic	78	2 µg	65-135%	PASS	0.013
Barium	117	2 µg	75-125%	PASS	0.009
Cadmium	83	2 µg	60-140%	PASS	0.000
Chromium	87	2 µg	75-125%	PASS	0.011
Cobalt	87	2 µg	75-125%	PASS	0.000
Copper	89	2 µg	75-125%	PASS	0.000
Lead	86	2 µg	75-125%	PASS	0.024
Mercury	80	0.05 µg	75-125%	PASS	0.095
Molybdenum	125	2 µg	75-125%	PASS	0.000
Nickel	86	2 µg	75-125%	PASS	0.012
Selenium	66	2 µg	40-160%	PASS	0.015
Silver	99	2 µg	75-125%	PASS	0.158
Tin	115	2 µg	60-140%	PASS	0.026
Vanadium	97	2 µg	75-125%	PASS	0.000
Batch 23103-9003, Replicate MS2, Sample 2229					
Antimony	99	2 µg	40-160%	PASS	
Arsenic	79	2 µg	65-135%	PASS	
Barium	116	2 µg	75-125%	PASS	
Cadmium	83	2 µg	60-140%	PASS	
Chromium	88	2 µg	75-125%	PASS	
Cobalt	87	2 µg	75-125%	PASS	
Copper	89	2 µg	75-125%	PASS	
Lead	84	2 µg	75-125%	PASS	
Mercury	88	0.05 µg	75-125%	PASS	
Molybdenum	125	2 µg	75-125%	PASS	

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
Nickel	87	2 µg	75-125%	PASS	
Selenium	65	2 µg	40-160%	PASS	
Silver	116	2 µg	75-125%	PASS	
Tin	112	2 µg	60-140%	PASS	
Vanadium	97	2 µg	75-125%	PASS	
Batch 23103-9003, Replicate MS1, Sample BST06					
Antimony	99	2 µg	40-160%	PASS	0.000
Arsenic	81	2 µg	65-135%	PASS	0.000
Barium	114	2 µg	75-125%	PASS	0.009
Cadmium	84	2 µg	60-140%	PASS	0.012
Chromium	87	2 µg	75-125%	PASS	0.000
Cobalt	89	2 µg	75-125%	PASS	0.000
Copper	92	2 µg	75-125%	PASS	0.011
Lead	111	2 µg	75-125%	PASS	0.018
Manganese	82	2 µg	75-125%	PASS	0.012
Mercury	88	0.05 µg	75-125%	PASS	0.034
Nickel	88	2 µg	75-125%	PASS	0.022
Selenium	67	2 µg	40-160%	PASS	0.000
Silver	78	2 µg	75-125%	PASS	0.086
Tin	113	2 µg	60-140%	PASS	0.000
Titanium	104	2 µg	75-125%	PASS	0.019
Vanadium	96	2 µg	75-125%	PASS	0.021
Batch 23103-9003, Replicate MS2, Sample BST06					
Antimony	99	2 µg	40-160%	PASS	
Arsenic	81	2 µg	65-135%	PASS	
Barium	113	2 µg	75-125%	PASS	
Cadmium	83	2 µg	60-140%	PASS	
Chromium	87	2 µg	75-125%	PASS	
Cobalt	89	2 µg	75-125%	PASS	
Copper	93	2 µg	75-125%	PASS	
Lead	113	2 µg	75-125%	PASS	
Manganese	83	2 µg	75-125%	PASS	
Mercury	91	0.05 µg	75-125%	PASS	
Nickel	90	2 µg	75-125%	PASS	
Selenium	67	2 µg	40-160%	PASS	
Silver	85	2 µg	75-125%	PASS	
Tin	113	2 µg	60-140%	PASS	
Titanium	106	2 µg	75-125%	PASS	
Vanadium	98	2 µg	75-125%	PASS	
Batch 23103-9003, Replicate MS1, Sample TO-3					
Aluminum	84	2 µg	75-125%	PASS	0.012
Antimony	98	2 µg	40-160%	PASS	0.021
Arsenic	83	2 µg	65-135%	PASS	0.000
Barium	109	2 µg	75-125%	PASS	0.000
Cadmium	84	2 µg	60-140%	PASS	0.012
Chromium	89	2 µg	75-125%	PASS	0.055
Cobalt	93	2 µg	75-125%	PASS	0.021
Copper	96	2 µg	75-125%	PASS	0.021
Iron	102	2 µg	75-125%	PASS	0.145
Lead	108	2 µg	75-125%	PASS	0.009
Manganese	86	2 µg	75-125%	PASS	0.000
Mercury	86	0.05 µg	75-125%	PASS	0.023
Nickel	94	2 µg	75-125%	PASS	0.021
Selenium	68	2 µg	40-160%	PASS	0.029
Silver	76	2 µg	75-125%	PASS	0.026
Tin	111	2 µg	60-140%	PASS	0.018
Titanium	107	2 µg	75-125%	PASS	0.019
Vanadium	101	2 µg	75-125%	PASS	0.029
Zinc	76	2 µg	75-125%	PASS	0.026
Batch 23103-9003, Replicate MS2, Sample TO-3					

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
Aluminum	85	2 µg	75-125%	PASS	
Antimony	96	2 µg	40-160%	PASS	
Arsenic	83	2 µg	65-135%	PASS	
Barium	109	2 µg	75-125%	PASS	
Cadmium	83	2 µg	60-140%	PASS	
Chromium	94	2 µg	75-125%	PASS	
Cobalt	95	2 µg	75-125%	PASS	
Copper	98	2 µg	75-125%	PASS	
Iron	118	2 µg	75-125%	PASS	
Lead	107	2 µg	75-125%	PASS	
Manganese	86	2 µg	75-125%	PASS	
Mercury	88	0.05 µg	75-125%	PASS	
Nickel	96	2 µg	75-125%	PASS	
Selenium	70	2 µg	40-160%	PASS	
Silver	78	2 µg	75-125%	PASS	
Tin	109	2 µg	60-140%	PASS	
Titanium	109	2 µg	75-125%	PASS	
Vanadium	104	2 µg	75-125%	PASS	
Zinc	78	2 µg	75-125%	PASS	
Batch 23103-8042, Replicate MS1, Sample 2435					
PCB018	88	160 ng	65-135%	PASS	0.097
PCB028	87	160 ng	65-135%	PASS	0.109
PCB031	85	160 ng	65-135%	PASS	0.079
PCB033	85	160 ng	65-135%	PASS	0.048
PCB037	93	160 ng	65-135%	PASS	0.067
PCB044	85	160 ng	65-135%	PASS	0.061
PCB049	84	160 ng	65-135%	PASS	0.036
PCB052	86	160 ng	65-135%	PASS	0.048
PCB066	87	160 ng	65-135%	PASS	0.023
PCB070	84	160 ng	65-135%	PASS	0.000
PCB074	87	160 ng	65-135%	PASS	0.023
PCB077	85	160 ng	65-135%	PASS	0.012
PCB081	86	160 ng	65-135%	PASS	0.023
PCB087	82	160 ng	65-135%	PASS	0.012
PCB095	80	160 ng	65-135%	PASS	0.038
PCB097	79	160 ng	65-135%	PASS	0.013
PCB099	85	160 ng	65-135%	PASS	0.061
PCB101	83	160 ng	65-135%	PASS	0.024
PCB105	78	160 ng	65-135%	PASS	0.066
PCB110	80	160 ng	65-135%	PASS	0.000
PCB114	81	160 ng	65-135%	PASS	0.038
PCB118	83	160 ng	65-135%	PASS	0.037
PCB119	82	160 ng	65-135%	PASS	0.012
PCB123	80	160 ng	65-135%	PASS	0.000
PCB126	81	160 ng	65-135%	PASS	0.051
PCB128+167	81	300 ng	65-135%	PASS	0.051
PCB138	82	160 ng	65-135%	PASS	0.037
PCB141	78	160 ng	65-135%	PASS	0.039
PCB149	77	160 ng	65-135%	PASS	0.000
PCB151	81	160 ng	65-135%	PASS	0.064
PCB153	83	160 ng	65-135%	PASS	0.058
PCB156	80	160 ng	65-135%	PASS	0.078
PCB157	70	160 ng	65-135%	PASS	0.042
PCB158	81	160 ng	65-135%	PASS	0.064
PCB168+132	80	300 ng	65-135%	PASS	0.051
PCB169	80	160 ng	65-135%	PASS	0.177
PCB170	75	160 ng	65-135%	PASS	0.052
PCB177	80	160 ng	65-135%	PASS	0.078
PCB180	75	160 ng	65-135%	PASS	0.000
PCB183	77	160 ng	65-135%	PASS	0.026

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
PCB187	78	160 ng	65-135%	PASS	0.053
PCB189	79	160 ng	65-135%	PASS	0.107
PCB194	78	160 ng	65-135%	PASS	0.094
PCB200	79	160 ng	65-135%	PASS	0.039
PCB201	83	160 ng	65-135%	PASS	0.142
PCB206	78	160 ng	65-135%	PASS	0.086
Batch 23103-8042, Replicate MS2, Sample 2435					
PCB018	97	160 ng	65-135%	PASS	
PCB028	78	160 ng	65-135%	PASS	
PCB031	92	160 ng	65-135%	PASS	
PCB033	81	160 ng	65-135%	PASS	
PCB037	87	160 ng	65-135%	PASS	
PCB044	80	160 ng	65-135%	PASS	
PCB049	81	160 ng	65-135%	PASS	
PCB052	82	160 ng	65-135%	PASS	
PCB066	85	160 ng	65-135%	PASS	
PCB070	84	160 ng	65-135%	PASS	
PCB074	85	160 ng	65-135%	PASS	
PCB077	84	160 ng	65-135%	PASS	
PCB081	88	160 ng	65-135%	PASS	
PCB087	81	160 ng	65-135%	PASS	
PCB095	77	160 ng	65-135%	PASS	
PCB097	78	160 ng	65-135%	PASS	
PCB099	80	160 ng	65-135%	PASS	
PCB101	81	160 ng	65-135%	PASS	
PCB105	73	160 ng	65-135%	PASS	
PCB110	80	160 ng	65-135%	PASS	
PCB114	78	160 ng	65-135%	PASS	
PCB118	80	160 ng	65-135%	PASS	
PCB119	81	160 ng	65-135%	PASS	
PCB123	80	160 ng	65-135%	PASS	
PCB126	77	160 ng	65-135%	PASS	
PCB128+167	77	300 ng	65-135%	PASS	
PCB138	79	160 ng	65-135%	PASS	
PCB141	75	160 ng	65-135%	PASS	
PCB149	77	160 ng	65-135%	PASS	
PCB151	76	160 ng	65-135%	PASS	
PCB153	88	160 ng	65-135%	PASS	
PCB156	74	160 ng	65-135%	PASS	
PCB157	73	160 ng	65-135%	PASS	
PCB158	76	160 ng	65-135%	PASS	
PCB168+132	76	300 ng	65-135%	PASS	
PCB169	67	160 ng	65-135%	PASS	
PCB170	79	160 ng	65-135%	PASS	
PCB177	74	160 ng	65-135%	PASS	
PCB180	75	160 ng	65-135%	PASS	
PCB183	75	160 ng	65-135%	PASS	
PCB187	74	160 ng	65-135%	PASS	
PCB189	71	160 ng	65-135%	PASS	
PCB194	71	160 ng	65-135%	PASS	
PCB200	76	160 ng	65-135%	PASS	
PCB201	72	160 ng	65-135%	PASS	
PCB206	85	160 ng	65-135%	PASS	
Batch 23103-8044, Replicate MS1, Sample BST04-C					
PCB018	94	160 ng	65-135%	PASS	0.173
PCB028	95	160 ng	65-135%	PASS	0.065
PCB031	92	160 ng	65-135%	PASS	0.140
PCB033	91	160 ng	65-135%	PASS	0.152
PCB037	89	160 ng	65-135%	PASS	0.033
PCB044	91	160 ng	65-135%	PASS	0.045

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
PCB049	94	160 ng	65-135%	PASS	0.055
PCB052	94	160 ng	65-135%	PASS	0.066
PCB066	93	160 ng	65-135%	PASS	0.011
PCB070	91	160 ng	65-135%	PASS	0.011
PCB074	92	160 ng	65-135%	PASS	0.044
PCB077	89	160 ng	65-135%	PASS	0.070
PCB081	89	160 ng	65-135%	PASS	0.058
PCB087	90	160 ng	65-135%	PASS	0.045
PCB095	88	160 ng	65-135%	PASS	0.044
PCB097	87	160 ng	65-135%	PASS	0.023
PCB099	92	160 ng	65-135%	PASS	0.033
PCB101	90	160 ng	65-135%	PASS	0.057
PCB105	77	160 ng	65-135%	PASS	0.099
PCB110	87	160 ng	65-135%	PASS	0.023
PCB114	86	160 ng	65-135%	PASS	0.023
PCB118	90	160 ng	65-135%	PASS	0.093
PCB119	92	160 ng	65-135%	PASS	0.056
PCB123	85	160 ng	65-135%	PASS	0.012
PCB126	82	160 ng	65-135%	PASS	0.012
PCB128+167	81	300 ng	65-135%	PASS	0.064
PCB138	82	160 ng	65-135%	PASS	0.000
PCB141	79	160 ng	65-135%	PASS	0.026
PCB149	84	160 ng	65-135%	PASS	0.012
PCB151	86	160 ng	65-135%	PASS	0.024
PCB153	86	160 ng	65-135%	PASS	0.060
PCB156	80	160 ng	65-135%	PASS	0.038
PCB157	78	160 ng	65-135%	PASS	0.025
PCB158	86	160 ng	65-135%	PASS	0.085
PCB168+132	86	300 ng	65-135%	PASS	0.024
PCB169	80	160 ng	65-135%	PASS	0.065
PCB170	74	160 ng	65-135%	PASS	0.040
PCB177	80	160 ng	65-135%	PASS	0.012
PCB180	80	160 ng	65-135%	PASS	0.192
PCB183	80	160 ng	65-135%	PASS	0.000
PCB187	82	160 ng	65-135%	PASS	0.050
PCB189	79	160 ng	65-135%	PASS	0.119
PCB194	84	160 ng	65-135%	PASS	0.087
PCB200	85	160 ng	65-135%	PASS	0.086
PCB201	95	160 ng	65-135%	PASS	0.209
PCB206	84	160 ng	65-135%	PASS	0.087
Batch 23103-8044, Replicate MS2, Sample BST04-C					
PCB018	79	160 ng	65-135%	PASS	
PCB028	89	160 ng	65-135%	PASS	
PCB031	80	160 ng	65-135%	PASS	
PCB033	106	160 ng	65-135%	PASS	
PCB037	92	160 ng	65-135%	PASS	
PCB044	87	160 ng	65-135%	PASS	
PCB049	89	160 ng	65-135%	PASS	
PCB052	88	160 ng	65-135%	PASS	
PCB066	92	160 ng	65-135%	PASS	
PCB070	92	160 ng	65-135%	PASS	
PCB074	88	160 ng	65-135%	PASS	
PCB077	83	160 ng	65-135%	PASS	
PCB081	84	160 ng	65-135%	PASS	
PCB087	86	160 ng	65-135%	PASS	
PCB095	92	160 ng	65-135%	PASS	
PCB097	89	160 ng	65-135%	PASS	
PCB099	89	160 ng	65-135%	PASS	
PCB101	85	160 ng	65-135%	PASS	
PCB105	85	160 ng	65-135%	PASS	

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
PCB110	85	160 ng	65-135%	PASS	
PCB114	88	160 ng	65-135%	PASS	
PCB118	82	160 ng	65-135%	PASS	
PCB119	87	160 ng	65-135%	PASS	
PCB123	86	160 ng	65-135%	PASS	
PCB126	83	160 ng	65-135%	PASS	
PCB128+167	76	300 ng	65-135%	PASS	
PCB138	82	160 ng	65-135%	PASS	
PCB141	77	160 ng	65-135%	PASS	
PCB149	85	160 ng	65-135%	PASS	
PCB151	84	160 ng	65-135%	PASS	
PCB153	81	160 ng	65-135%	PASS	
PCB156	77	160 ng	65-135%	PASS	
PCB157	80	160 ng	65-135%	PASS	
PCB158	79	160 ng	65-135%	PASS	
PCB168+132	84	300 ng	65-135%	PASS	
PCB169	75	160 ng	65-135%	PASS	
PCB170	77	160 ng	65-135%	PASS	
PCB177	81	160 ng	65-135%	PASS	
PCB180	66	160 ng	65-135%	PASS	
PCB183	80	160 ng	65-135%	PASS	
PCB187	78	160 ng	65-135%	PASS	
PCB189	89	160 ng	65-135%	PASS	
PCB194	77	160 ng	65-135%	PASS	
PCB200	78	160 ng	65-135%	PASS	
PCB201	77	160 ng	65-135%	PASS	
PCB206	77	160 ng	65-135%	PASS	
Batch 23103-8042, Replicate MS1, Sample 2435					
(d10-Acenaphthene)	76	4000 ng	47-119%	PASS	
(d10-Phenanthrene)	79	4000 ng	45-125%	PASS	
(d12-Chrysene)	80	4000 ng	44-128%	PASS	
(d12-Perylene)	78	4000 ng	46-135%	PASS	
(d8-Naphthalene)	67	4000 ng	20-97%	PASS	
1-Methylnaphthalene	80	131 ng	50-120%	PASS	0.065
1-Methylphenanthrene	91	130 ng	70-130%	PASS	0.056
2,3,5-Trimethylnaphthalene	90	136 ng	70-130%	PASS	0.000
2,6-Dimethylnaphthalene	83	132 ng	70-130%	PASS	0.012
2-Methylnaphthalene	77	128.4 ng	50-120%	PASS	0.013
Acenaphthene	84	126 ng	70-130%	PASS	0.000
Acenaphthylene	81	131.2 ng	70-130%	PASS	0.000
Anthracene	85	99.5 ng	70-130%	PASS	0.023
Benz[a]anthracene	102	114 ng	70-130%	PASS	0.000
Benzo[a]pyrene	113	119 ng	70-130%	PASS	0.036
Benzo[b]fluoranthene	101	131 ng	70-130%	PASS	0.072
Benzo[e]pyrene	94	131 ng	70-130%	PASS	0.042
Benzo[g,h,i]perylene	105	117 ng	70-130%	PASS	0.100
Benzo[k]fluoranthene	82	131 ng	70-130%	PASS	0.136
Biphenyl	80	132 ng	50-120%	PASS	0.000
Chrysene	101	132 ng	70-130%	PASS	0.029
Dibenz[a,h]anthracene	99	98.6 ng	70-130%	PASS	0.084
Fluoranthene	99	132 ng	70-130%	PASS	0.030
Fluorene	85	117 ng	70-130%	PASS	0.048
Indeno[1,2,3-c,d]pyrene	102	117 ng	70-130%	PASS	0.082
Naphthalene	73	132 ng	50-120%	PASS	0.086
Perylene	94	99.4 ng	70-130%	PASS	0.032
Phenanthrene	93	131 ng	70-130%	PASS	0.021
Pyrene	100	132 ng	70-130%	PASS	0.020
Batch 23103-8042, Replicate MS2, Sample 2435					
(d10-Acenaphthene)	75	4000 ng	47-119%	PASS	
(d10-Phenanthrene)	79	4000 ng	45-125%	PASS	

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
(d12-Chrysene)	85	4000 ng	44-128%	PASS	
(d12-Perylene)	73	4000 ng	46-135%	PASS	
(d8-Naphthalene)	63	4000 ng	20-97%	PASS	
1-Methylnaphthalene	75	131 ng	50-120%	PASS	
1-Methylphenanthrene	86	130 ng	70-130%	PASS	
2,3,5-Trimethylnaphthalene	90	136 ng	70-130%	PASS	
2,6-Dimethylnaphthalene	82	132 ng	70-130%	PASS	
2-Methylnaphthalene	76	128.4 ng	50-120%	PASS	
Acenaphthene	84	126 ng	70-130%	PASS	
Acenaphthylene	81	131.2 ng	70-130%	PASS	
Anthracene	87	99.5 ng	70-130%	PASS	
Benz[a]anthracene	102	114 ng	70-130%	PASS	
Benzo[a]pyrene	109	119 ng	70-130%	PASS	
Benzo[b]fluoranthene	94	131 ng	70-130%	PASS	
Benzo[e]pyrene	98	131 ng	70-130%	PASS	
Benzo[g,h,i]perylene	95	117 ng	70-130%	PASS	
Benzo[k]fluoranthene	94	131 ng	70-130%	PASS	
Biphenyl	80	132 ng	50-120%	PASS	
Chrysene	104	132 ng	70-130%	PASS	
Dibenz[a,h]anthracene	91	98.6 ng	70-130%	PASS	
Fluoranthene	102	132 ng	70-130%	PASS	
Fluorene	81	117 ng	70-130%	PASS	
Indeno[1,2,3-c,d]pyrene	94	117 ng	70-130%	PASS	
Naphthalene	67	132 ng	50-120%	PASS	
Perylene	91	99.4 ng	70-130%	PASS	
Phenanthrene	95	131 ng	70-130%	PASS	
Pyrene	102	132 ng	70-130%	PASS	
Batch 23103-8044, Replicate MS1, Sample BST04-C					
(d10-Acenaphthene)	87	4000 ng	47-119%	PASS	
(d10-Phenanthrene)	87	4000 ng	45-125%	PASS	
(d12-Chrysene)	84	4000 ng	44-128%	PASS	
(d12-Perylene)	78	4000 ng	46-135%	PASS	
(d8-Naphthalene)	80	4000 ng	20-97%	PASS	
1-Methylnaphthalene	93	131 ng	50-120%	PASS	0.138
1-Methylphenanthrene	107	130 ng	70-130%	PASS	0.028
2,3,5-Trimethylnaphthalene	87	136 ng	70-130%	PASS	0.056
2,6-Dimethylnaphthalene	89	132 ng	70-130%	PASS	0.132
2-Methylnaphthalene	91	128.4 ng	50-120%	PASS	0.154
Acenaphthene	96	126 ng	70-130%	PASS	0.122
Acenaphthylene	92	131.2 ng	70-130%	PASS	0.103
Anthracene	101	99.5 ng	70-130%	PASS	0.020
Benz[a]anthracene	93	114 ng	70-130%	PASS	0.000
Benzo[a]pyrene	85	119 ng	70-130%	PASS	0.090
Benzo[b]fluoranthene	86	131 ng	70-130%	PASS	0.067
Benzo[e]pyrene	96	131 ng	70-130%	PASS	0.090
Benzo[g,h,i]perylene	101	117 ng	70-130%	PASS	0.020
Benzo[k]fluoranthene	108	131 ng	70-130%	PASS	0.107
Biphenyl	61	132 ng	50-120%	PASS	0.245
Chrysene	117	132 ng	70-130%	PASS	0.089
Dibenz[a,h]anthracene	94	98.6 ng	70-130%	PASS	0.000
Fluoranthene	125	132 ng	70-130%	PASS	0.033
Fluorene	100	117 ng	70-130%	PASS	0.094
Indeno[1,2,3-c,d]pyrene	99	117 ng	70-130%	PASS	0.010
Naphthalene	86	132 ng	50-120%	PASS	0.150
Perylene	103	99.4 ng	70-130%	PASS	0.038
Phenanthrene	110	131 ng	70-130%	PASS	0.047
Pyrene	127	132 ng	70-130%	PASS	0.065
Batch 23103-8044, Replicate MS2, Sample BST04-C					
(d10-Acenaphthene)	81	4000 ng	47-119%	PASS	
(d10-Phenanthrene)	87	4000 ng	45-125%	PASS	

Tissue chemistry data (definitive)–Matrix Spikes--CRG Marine Laboratories, Inc.

Constituent	% Recovery	True Value	Acceptance Range	Comments	% RPD of MS1 and MS2
(d12-Chrysene)	83	4000 ng	44-128%	PASS	
(d12-Perylene)	80	4000 ng	46-135%	PASS	
(d8-Naphthalene)	70	4000 ng	20-97%	PASS	
1-Methylnaphthalene	81	131 ng	50-120%	PASS	
1-Methylphenanthrene	104	130 ng	70-130%	PASS	
2,3,5-Trimethylnaphthalene	92	136 ng	70-130%	PASS	
2,6-Dimethylnaphthalene	78	132 ng	70-130%	PASS	
2-Methylnaphthalene	78	128.4 ng	50-120%	PASS	
Acenaphthene	85	126 ng	70-130%	PASS	
Acenaphthylene	83	131.2 ng	70-130%	PASS	
Anthracene	99	99.5 ng	70-130%	PASS	
Benz[a]anthracene	93	114 ng	70-130%	PASS	
Benzo[a]pyrene	93	119 ng	70-130%	PASS	
Benzo[b]fluoranthene	92	131 ng	70-130%	PASS	
Benzo[e]pyrene	105	131 ng	70-130%	PASS	
Benzo[g,h,i]perylene	103	117 ng	70-130%	PASS	
Benzo[k]fluoranthene	97	131 ng	70-130%	PASS	
Biphenyl	78	132 ng	50-120%	PASS	
Chrysene	107	132 ng	70-130%	PASS	
Dibenz[a,h]anthracene	94	98.6 ng	70-130%	PASS	
Fluoranthene	121	132 ng	70-130%	PASS	
Fluorene	91	117 ng	70-130%	PASS	
Indeno[1,2,3-c,d]pyrene	98	117 ng	70-130%	PASS	
Naphthalene	74	132 ng	50-120%	PASS	
Perylene	107	99.4 ng	70-130%	PASS	
Phenanthrene	105	131 ng	70-130%	PASS	
Pyrene	119	132 ng	70-130%	PASS	

Sediment and tissue chemical analyses (definitive)—Relative Percent DIfference (RPD) for replicate values.

Off-scale Al values were replaced with maximum detected value for purposes of calculating RPD.

RPD was not calculated for replicate pairs where both values were < 3x RL.

Station	Medium	Analyte	Units	Replicate 1 value	Replicate 2 value	Reporting Limit (RL)	3x RL	Relative Percent Difference (RPD)	RPD > 0.25 notes
SWZ01	Sediment	Aluminum	mg/dry kg	32000	33300	1	3	0.04	
SWZ01	Sediment	Antimony	mg/dry kg	0.54	0.63	0.05	0.15	0.15	
SWZ01	Sediment	Arsenic	mg/dry kg	6.95	7.22	0.05	0.15	0.04	
SWZ01	Sediment	Barium	mg/dry kg	99.6	106	0.05	0.15	0.06	
SWZ01	Sediment	Beryllium	mg/dry kg	0.23	0.27	0.05	0.15	0.16	
SWZ01	Sediment	Cadmium	mg/dry kg	0.57	0.32	0.05	0.15	0.56	x
SWZ01	Sediment	Chromium	mg/dry kg	49.5	50.4	0.05	0.15	0.02	
SWZ01	Sediment	Cobalt	mg/dry kg	5.88	5.87	0.05	0.15	0.00	
SWZ01	Sediment	Copper	mg/dry kg	121	115	0.05	0.15	0.05	
SWZ01	Sediment	Iron	mg/dry kg	32100	31700	1	3	0.01	
SWZ01	Sediment	Lead	mg/dry kg	89.2	89.7	0.05	0.15	0.01	
SWZ01	Sediment	Manganese	mg/dry kg	219	216	0.05	0.15	0.01	
SWZ01	Sediment	Mercury	mg/dry kg	0.54	0.5	0.01	0.03	0.08	
SWZ01	Sediment	Molybdenum	mg/dry kg	2.43	2.47	0.05	0.15	0.02	
SWZ01	Sediment	Nickel	mg/dry kg	15.7	15	0.05	0.15	0.05	
SWZ01	Sediment	Selenium	mg/dry kg	0.46	0.41	0.05	0.15	0.11	
SWZ01	Sediment	Silver	mg/dry kg	0.1	0.13	0.01	0.03	0.26	x
SWZ01	Sediment	Strontium	mg/dry kg	57.6	50.4	0.05	0.15	0.13	
SWZ01	Sediment	Thallium	mg/dry kg	0.25	0.23	0.05	0.15	0.08	
SWZ01	Sediment	Tin	mg/dry kg	7.17	6.56	0.05	0.15	0.09	
SWZ01	Sediment	Titanium	mg/dry kg	1670	1640	0.05	0.15	0.02	
SWZ01	Sediment	Vanadium	mg/dry kg	69.5	67	0.05	0.15	0.04	
SWZ01	Sediment	Zinc	mg/dry kg	313	332	0.05	0.15	0.06	
DAC04	Sediment	Aluminum	mg/dry kg	28730	27900	1	3	0.03	
DAC04	Sediment	Antimony	mg/dry kg	0.29	0.25	0.05	0.15	0.15	
DAC04	Sediment	Arsenic	mg/dry kg	6.17	6.17	0.05	0.15	0.00	

Sediment and tissue chemical analyses (definitive)—Relative Percent DIfference (RPD) for replicate values.
Off-scale Al values were replaced with maximum detected value for purposes of calculating RPD.
RPD was not calculated for replicate pairs where both values were < 3x RL.

Station	Medium	Analyte	Units	Replicate 1 value	Replicate 2 value	Reporting Limit (RL)	3x RL	Relative Percent Difference (RPD)	RPD > 0.25	notes
DAC04	Sediment	Barium	mg/dry kg	70.8	78.2	0.05	0.15	0.10		
DAC04	Sediment	Beryllium	mg/dry kg	0.12	0.2	0.05	0.15	0.50	x	
DAC04	Sediment	Cadmium	mg/dry kg	0.36	0.33	0.05	0.15	0.09		
DAC04	Sediment	Chromium	mg/dry kg	57.8	56.9	0.05	0.15	0.02		
DAC04	Sediment	Cobalt	mg/dry kg	4.18	4.48	0.05	0.15	0.07		
DAC04	Sediment	Copper	mg/dry kg	84.5	92.7	0.05	0.15	0.09		
DAC04	Sediment	Iron	mg/dry kg	27100	26900	1	3	0.01		
DAC04	Sediment	Lead	mg/dry kg	61.4	63.5	0.05	0.15	0.03		
DAC04	Sediment	Manganese	mg/dry kg	211	209	0.05	0.15	0.01		
DAC04	Sediment	Mercury	mg/dry kg	0.53	0.49	0.01	0.03	0.08		
DAC04	Sediment	Molybdenum	mg/dry kg	1.06	0.97	0.05	0.15	0.09		
DAC04	Sediment	Nickel	mg/dry kg	15	14.3	0.05	0.15	0.05		
DAC04	Sediment	Selenium	mg/dry kg	0.25	0.37	0.05	0.15	0.39	x	
DAC04	Sediment	Silver	mg/dry kg	0.95	0.61	0.01	0.03	0.44	x	
DAC04	Sediment	Strontium	mg/dry kg	39.9	37.9	0.05	0.15	0.05		
DAC04	Sediment	Thallium	mg/dry kg	0.24	0.25	0.05	0.15	0.04		
DAC04	Sediment	Tin	mg/dry kg	5.16	5.03	0.05	0.15	0.03		
DAC04	Sediment	Titanium	mg/dry kg	1649	1590	0.05	0.15	0.04		
DAC04	Sediment	Vanadium	mg/dry kg	54.2	52.5	0.05	0.15	0.03		
DAC04	Sediment	Zinc	mg/dry kg	191	199	0.05	0.15	0.04		
BST05	Sediment	Aluminum	mg/dry kg	*> 53200*	37500	1	3	0.35	x	R1 off scale
BST05	Sediment	Antimony	mg/dry kg	0.15	0.18	0.05	0.15	0.18		
BST05	Sediment	Arsenic	mg/dry kg	7.34	7.3	0.05	0.15	0.01		
BST05	Sediment	Barium	mg/dry kg	102	99.8	0.05	0.15	0.02		
BST05	Sediment	Beryllium	mg/dry kg	0.24	0.23	0.05	0.15	0.04		
BST05	Sediment	Cadmium	mg/dry kg	0.17	0.18	0.05	0.15	0.06		
BST05	Sediment	Chromium	mg/dry kg	49.7	50.3	0.05	0.15	0.01		
BST05	Sediment	Cobalt	mg/dry kg	5.56	5.43	0.05	0.15	0.02		
BST05	Sediment	Copper	mg/dry kg	90.7	91.5	0.05	0.15	0.01		
BST05	Sediment	Iron	mg/dry kg	35800	35900	1	3	0.00		
BST05	Sediment	Lead	mg/dry kg	35.5	36.1	0.05	0.15	0.02		
BST05	Sediment	Manganese	mg/dry kg	268	271	0.05	0.15	0.01		
BST05	Sediment	Mercury	mg/dry kg	1.01	0.82	0.01	0.03	0.21		
BST05	Sediment	Molybdenum	mg/dry kg	0.73	0.67	0.05	0.15	0.09		
BST05	Sediment	Nickel	mg/dry kg	12.5	12.5	0.05	0.15	0.00		
BST05	Sediment	Selenium	mg/dry kg	0.44	0.41	0.05	0.15	0.07		
BST05	Sediment	Silver	mg/dry kg	0.49	0.51	0.01	0.03	0.04		
BST05	Sediment	Strontium	mg/dry kg	0.47	47.3	0.05	0.15	1.96	x	
BST05	Sediment	Thallium	mg/dry kg	0.29	0.28	0.05	0.15	0.04		
BST05	Sediment	Tin	mg/dry kg	5.63	5.72	0.05	0.15	0.02		
BST05	Sediment	Titanium	mg/dry kg	1670	1710	0.05	0.15	0.02		
BST05	Sediment	Vanadium	mg/dry kg	63.3	64.1	0.05	0.15	0.01		
BST05	Sediment	Zinc	mg/dry kg	165	167	0.05	0.15	0.01		
BST10	Sediment	Aluminum	mg/dry kg	*> 53200*	34100	1	3	0.44	x	R1 off scale
BST10	Sediment	Antimony	mg/dry kg	0.12	0.2	0.05	0.15	0.50	x	
BST10	Sediment	Arsenic	mg/dry kg	6.49	6.44	0.05	0.15	0.01		
BST10	Sediment	Barium	mg/dry kg	94.6	95.4	0.05	0.15	0.01		
BST10	Sediment	Beryllium	mg/dry kg	0.23	0.17	0.05	0.15	0.30	x	
BST10	Sediment	Cadmium	mg/dry kg	0.18	0.17	0.05	0.15	0.06		
BST10	Sediment	Chromium	mg/dry kg	44.4	44.6	0.05	0.15	0.00		
BST10	Sediment	Cobalt	mg/dry kg	5.2	4.97	0.05	0.15	0.05		
BST10	Sediment	Copper	mg/dry kg	73.7	73.1	0.05	0.15	0.01		
BST10	Sediment	Iron	mg/dry kg	32700	33100	1	3	0.01		
BST10	Sediment	Lead	mg/dry kg	30.7	31.9	0.05	0.15	0.04		
BST10	Sediment	Manganese	mg/dry kg	256	262	0.05	0.15	0.02		
BST10	Sediment	Mercury	mg/dry kg	0.57	0.69	0.01	0.03	0.19		

Sediment and tissue chemical analyses (definitive)—Relative Percent DIfference (RPD) for replicate values.
Off-scale Al values were replaced with maximum detected value for purposes of calculating RPD.
RPD was not calculated for replicate pairs where both values were < 3x RL.

Station	Medium	Analyte	Units	Replicate 1 value	Replicate 2 value	Reporting Limit (RL)	3x RL	Relative Percent Difference (RPD)	RPD > 0.25	notes
BST10	Sediment	Molybdenum	mg/dry kg	0.6	0.68	0.05	0.15	0.13		
BST10	Sediment	Nickel	mg/dry kg	11	11.2	0.05	0.15	0.02		
BST10	Sediment	Selenium	mg/dry kg	0.35	0.43	0.05	0.15	0.21		
BST10	Sediment	Silver	mg/dry kg	0.4	0.46	0.01	0.03	0.14		
BST10	Sediment	Strontium	mg/dry kg	43.6	42.5	0.05	0.15	0.03		
BST10	Sediment	Thallium	mg/dry kg	0.27	0.27	0.05	0.15	0.00		
BST10	Sediment	Tin	mg/dry kg	4.65	4.73	0.05	0.15	0.02		
BST10	Sediment	Titanium	mg/dry kg	1960	1750	0.05	0.15	0.11		
BST10	Sediment	Vanadium	mg/dry kg	57.8	58.2	0.05	0.15	0.01		
BST10	Sediment	Zinc	mg/dry kg	146	148	0.05	0.15	0.01		
DAC06	Sediment	PCB066	ng/dry g	6.1	7	2	6	0.14		
DAC06	Sediment	PCB101	ng/dry g	10.4	7.9	2	6	0.27	x	
DAC06	Sediment	PCB110	ng/dry g	5.8	7.5	2	6	0.26	x	
DAC06	Sediment	PCB118	ng/dry g	10.2	11.6	2	6	0.13		
DAC06	Sediment	1-Methylnaphthalene	ng/dry g	7.2	6.8	2	6	0.06		
DAC06	Sediment	1-Methylphenanthrene	ng/dry g	8.9	8.9	2	6	0.00		
DAC06	Sediment	2,6-Dimethylnaphthalene	ng/dry g	6.9	6.1	2	6	0.12		
DAC06	Sediment	2-Methylnaphthalene	ng/dry g	12.7	11.9	2	6	0.07		
DAC06	Sediment	Acenaphthylene	ng/dry g	24.2	24.6	2	6	0.02		
DAC06	Sediment	Anthracene	ng/dry g	67.9	62.2	2	6	0.09		
DAC06	Sediment	Benz[a]anthracene	ng/dry g	189	199	2	6	0.05		
DAC06	Sediment	Benzo[a]pyrene	ng/dry g	377	518	2	6	0.32	x	
DAC06	Sediment	Benzo[b]fluoranthene	ng/dry g	361	462	2	6	0.25		
DAC06	Sediment	Benzo[e]pyrene	ng/dry g	285	325	2	6	0.13		
DAC06	Sediment	Benzo[g,h,i]perylene	ng/dry g	382	404	2	6	0.06		
DAC06	Sediment	Benzo[k]fluoranthene	ng/dry g	437	467	2	6	0.07		
DAC06	Sediment	Chrysene	ng/dry g	323	411	2	6	0.24		
DAC06	Sediment	Dibenz[a,h]anthracene	ng/dry g	273	242	2	6	0.12		
DAC06	Sediment	Fluoranthene	ng/dry g	248	300	2	6	0.19		
DAC06	Sediment	Fluorene	ng/dry g	8.5	10.9	2	6	0.25		
DAC06	Sediment	Indeno[1,2,3-c,d]pyrene	ng/dry g	517	531	2	6	0.03		
DAC06	Sediment	Naphthalene	ng/dry g	12.3	14	2	6	0.13		
DAC06	Sediment	Perylene	ng/dry g	118	133	2	6	0.12		
DAC06	Sediment	Phenanthrene	ng/dry g	63.6	83.4	2	6	0.27	x	
DAC06	Sediment	Pyrene	ng/dry g	242	294	2	6	0.19		
2229	Sediment	1-Methylphenanthrene	ng/dry g	10.1	2.6	2	6	1.18	x	
2229	Sediment	Acenaphthylene	ng/dry g	7.9	9	2	6	0.13		
2229	Sediment	Anthracene	ng/dry g	14.4	13.2	2	6	0.09		
2229	Sediment	Benz[a]anthracene	ng/dry g	108	48.8	2	6	0.76	x	
2229	Sediment	Benzo[a]pyrene	ng/dry g	177	135	2	6	0.27	x	
2229	Sediment	Benzo[b]fluoranthene	ng/dry g	93.2	72.2	2	6	0.25	x	
2229	Sediment	Benzo[e]pyrene	ng/dry g	103	65	2	6	0.45	x	
2229	Sediment	Benzo[g,h,i]perylene	ng/dry g	140	96.8	2	6	0.36	x	
2229	Sediment	Benzo[k]fluoranthene	ng/dry g	115	80.6	2	6	0.35	x	
2229	Sediment	Chrysene	ng/dry g	128	83.6	2	6	0.42	x	
2229	Sediment	Fluoranthene	ng/dry g	104	65.7	2	6	0.45	x	
2229	Sediment	Indeno[1,2,3-c,d]pyrene	ng/dry g	160	117	2	6	0.31	x	
2229	Sediment	Perylene	ng/dry g	33.8	33.1	2	6	0.02		
2229	Sediment	Phenanthrene	ng/dry g	22.8	13.2	2	6	0.53	x	
2229	Sediment	Pyrene	ng/dry g	144	120	2	6	0.18		
BST12	Sediment	1-Methylphenanthrene	ng/dry g	10.6	20.8	2	6	0.65	x	
BST12	Sediment	2-Methylnaphthalene	ng/dry g	12.9	10.4	2	6	0.21		
BST12	Sediment	Acenaphthene	ng/dry g	8.3	9.9	2	6	0.18		
BST12	Sediment	Acenaphthylene	ng/dry g	32.6	34.7	2	6	0.06		
BST12	Sediment	Anthracene	ng/dry g	113	138	2	6	0.20		
BST12	Sediment	Benz[a]anthracene	ng/dry g	267	301	2	6	0.12		

Sediment and tissue chemical analyses (definitive)—Relative Percent DIfference (RPD) for replicate values.
Off-scale Al values were replaced with maximum detected value for purposes of calculating RPD.
RPD was not calculated for replicate pairs where both values were < 3x RL.

Station	Medium	Analyte	Units	Replicate 1 value	Replicate 2 value	Reporting Limit (RL)	3x RL	Relative Percent Difference (RPD)	RPD > 0.25	notes
BST12	Sediment	Benzo[a]pyrene	ng/dry g	523	709	2	6	0.30	x	
BST12	Sediment	Benzo[b]fluoranthene	ng/dry g	370	468	2	6	0.23		
BST12	Sediment	Benzo[e]pyrene	ng/dry g	374	357	2	6	0.05		
BST12	Sediment	Benzo[g,h,i]perylene	ng/dry g	326	456	2	6	0.33	x	
BST12	Sediment	Benzo[k]fluoranthene	ng/dry g	308	379	2	6	0.21		
BST12	Sediment	Chrysene	ng/dry g	579	523	2	6	0.10		
BST12	Sediment	Dibenz[a,h]anthracene	ng/dry g	165	265	2	6	0.47	x	
BST12	Sediment	Fluoranthene	ng/dry g	280	375	2	6	0.29	x	
BST12	Sediment	Fluorene	ng/dry g	17	17	2	6	0.00		
BST12	Sediment	Indeno[1,2,3-c,d]pyrene	ng/dry g	591	646	2	6	0.09		
BST12	Sediment	Naphthalene	ng/dry g	8.7	9	2	6	0.03		
BST12	Sediment	Perylene	ng/dry g	118	192	2	6	0.48	x	
BST12	Sediment	Phenanthrene	ng/dry g	111	125	2	6	0.12		
BST12	Sediment	Pyrene	ng/dry g	273	288	2	6	0.05		
T03	Tissue	Aluminum	mg/dry kg	73.6	82.5	0.05	0.15	0.11		
T03	Tissue	Antimony	mg/dry kg	1.25	0.92	0.05	0.15	0.30	x	
T03	Tissue	Arsenic	mg/dry kg	17.8	18.1	0.05	0.15	0.02		
T03	Tissue	Barium	mg/dry kg	0.25	0.65	0.05	0.15	0.89	x	
T03	Tissue	Chromium	mg/dry kg	8.34	7.22	0.05	0.15	0.14		
T03	Tissue	Cobalt	mg/dry kg	0.46	0.52	0.05	0.15	0.12		
T03	Tissue	Copper	mg/dry kg	16.6	16.5	0.05	0.15	0.01		
T03	Tissue	Iron	mg/dry kg	444	456	1	3	0.03		
T03	Tissue	Lead	mg/dry kg	1.24	1.01	0.05	0.15	0.20		
T03	Tissue	Manganese	mg/dry kg	2.25	2.56	0.05	0.15	0.13		
T03	Tissue	Molybdenum	mg/dry kg	9.58	9.94	0.05	0.15	0.04		
T03	Tissue	Nickel	mg/dry kg	2.28	2.24	0.05	0.15	0.02		
T03	Tissue	Selenium	mg/dry kg	1.9	1.57	0.05	0.15	0.19		
T03	Tissue	Silver	mg/dry kg	0.13	0.1	0.01	0.03	0.26	x	
T03	Tissue	Strontium	mg/dry kg	90.9	92.7	0.05	0.15	0.02		
T03	Tissue	Tin	mg/dry kg	0.19	0.17	0.05	0.15	0.11		
T03	Tissue	Titanium	mg/dry kg	14.5	17.6	0.05	0.15	0.19		
T03	Tissue	Vanadium	mg/dry kg	1.45	1.33	0.05	0.15	0.09		
T03	Tissue	Zinc	mg/dry kg	72.1	70.8	0.05	0.15	0.02		
2229	Tissue	Aluminum	mg/dry kg	685	632	0.05	0.15	0.08		
2229	Tissue	Antimony	mg/dry kg	1.17	1.04	0.05	0.15	0.12		
2229	Tissue	Arsenic	mg/dry kg	18.7	19.7	0.05	0.15	0.05		
2229	Tissue	Barium	mg/dry kg	4.1	6.38	0.05	0.15	0.44	x	
2229	Tissue	Cadmium	mg/dry kg	0.15	0.15	0.05	0.15	0.00		
2229	Tissue	Chromium	mg/dry kg	7.57	6.06	0.05	0.15	0.22		
2229	Tissue	Cobalt	mg/dry kg	0.89	0.92	0.05	0.15	0.03		
2229	Tissue	Copper	mg/dry kg	14.9	15.5	0.05	0.15	0.04		
2229	Tissue	Iron	mg/dry kg	1250	1290	1	3	0.03		
2229	Tissue	Lead	mg/dry kg	3.35	3.24	0.05	0.15	0.03		
2229	Tissue	Manganese	mg/dry kg	11.4	11.6	0.05	0.15	0.02		
2229	Tissue	Mercury	mg/dry kg	0.08	0.04	0.01	0.03	0.67	x	
2229	Tissue	Molybdenum	mg/dry kg	6.72	6.99	0.05	0.15	0.04		
2229	Tissue	Nickel	mg/dry kg	2.02	1.96	0.05	0.15	0.03		
2229	Tissue	Selenium	mg/dry kg	1.59	1.78	0.05	0.15	0.11		
2229	Tissue	Silver	mg/dry kg	0.11	0.09	0.01	0.03	0.20		
2229	Tissue	Strontium	mg/dry kg	67.1	66.8	0.05	0.15	0.00		
2229	Tissue	Tin	mg/dry kg	0.64	0.6	0.05	0.15	0.06		
2229	Tissue	Titanium	mg/dry kg	41.8	44.6	0.05	0.15	0.06		
2229	Tissue	Vanadium	mg/dry kg	2.81	2.92	0.05	0.15	0.04		
2229	Tissue	Zinc	mg/dry kg	61.5	61.4	0.05	0.15	0.00		
BST06	Tissue	Aluminum	mg/dry kg	494	499	0.05	0.15	0.01		
BST06	Tissue	Antimony	mg/dry kg	1.35	1.17	0.05	0.15	0.14		

Sediment and tissue chemical analyses (definitive)—Relative Percent DIfference (RPD) for replicate values.
Off-scale Al values were replaced with maximum detected value for purposes of calculating RPD.
RPD was not calculated for replicate pairs where both values were < 3x RL.

Station	Medium	Analyte	Units	Replicate 1 value	Replicate 2 value	Reporting Limit (RL)	3x RL	Relative Percent Difference (RPD)	RPD > 0.25	notes
BST06	Tissue	Arsenic	mg/dry kg	18.7	19.1	0.05	0.15	0.02		
BST06	Tissue	Barium	mg/dry kg	3.39	3.29	0.05	0.15	0.03		
BST06	Tissue	Chromium	mg/dry kg	8.39	7.66	0.05	0.15	0.09		
BST06	Tissue	Cobalt	mg/dry kg	0.79	0.85	0.05	0.15	0.07		
BST06	Tissue	Copper	mg/dry kg	16	15.2	0.05	0.15	0.05		
BST06	Tissue	Iron	mg/dry kg	1100	1130	1	3	0.03		
BST06	Tissue	Lead	mg/dry kg	3.04	2.7	0.05	0.15	0.12		
BST06	Tissue	Manganese	mg/dry kg	7.96	8.23	0.05	0.15	0.03		
BST06	Tissue	Molybdenum	mg/dry kg	7.41	7.67	0.05	0.15	0.03		
BST06	Tissue	Nickel	mg/dry kg	1.95	2.02	0.05	0.15	0.04		
BST06	Tissue	Selenium	mg/dry kg	1.81	1.68	0.05	0.15	0.07		
BST06	Tissue	Silver	mg/dry kg	0.13	0.11	0.01	0.03	0.17		
BST06	Tissue	Strontium	mg/dry kg	67.7	70.5	0.05	0.15	0.04		
BST06	Tissue	Tin	mg/dry kg	0.49	0.49	0.05	0.15	0.00		
BST06	Tissue	Titanium	mg/dry kg	36	38	0.05	0.15	0.05		
BST06	Tissue	Vanadium	mg/dry kg	2.74	2.81	0.05	0.15	0.03		
BST06	Tissue	Zinc	mg/dry kg	59.4	59.4	0.05	0.15	0.00		
2435	Tissue	2-Methylnaphthalene	ng/dry g	111	77.3	2	6	0.36	x	
2435	Tissue	Naphthalene	ng/dry g	78.3	59.3	2	6	0.28	x	
BST04-C	Tissue	Anthracene	ng/dry g	78.6	62.8	2	6	0.22		
BST04-C	Tissue	Benz[a]anthracene	ng/dry g	289	266	2	6	0.08		
BST04-C	Tissue	Benzo[a]pyrene	ng/dry g	492	415	2	6	0.17		
BST04-C	Tissue	Benzo[b]fluoranthene	ng/dry g	501	599	2	6	0.18		
BST04-C	Tissue	Benzo[e]pyrene	ng/dry g	384	318	2	6	0.19		
BST04-C	Tissue	Benzo[k]fluoranthene	ng/dry g	567	515	2	6	0.10		
BST04-C	Tissue	Chrysene	ng/dry g	480	421	2	6	0.13		
BST04-C	Tissue	Fluoranthene	ng/dry g	723	648	2	6	0.11		
BST04-C	Tissue	Pyrene	ng/dry g	788	731	2	6	0.08		
BST04-C	Tissue	Lipids	percent	0.15	0.09	0.05	0.15	0.50	x	

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
QAQC	23103	B1	(d10-Acenaphthene)	85	23103-8002	DI Water	75-103	47-119%
QAQC	23103	B2	(d10-Acenaphthene)	103	23103-8004	DI Water		
QAQC	23103	B3	(d10-Acenaphthene)	75	23103-8006	DI Water		
QAQC	23103	B1	(d10-Phenanthrene)	87	23103-8002	DI Water	87-98	45-125%
QAQC	23103	B2	(d10-Phenanthrene)	98	23103-8004	DI Water		
QAQC	23103	B3	(d10-Phenanthrene)	92	23103-8006	DI Water		
QAQC	23103	B1	(d12-Chrysene)	103	23103-8002	DI Water	90-103	44-128%
QAQC	23103	B2	(d12-Chrysene)	90	23103-8004	DI Water		
QAQC	23103	B3	(d12-Chrysene)	102	23103-8006	DI Water		
QAQC	23103	B1	(d12-Perylene)	113	23103-8002	DI Water	101-113	46-135%
QAQC	23103	B2	(d12-Perylene)	101	23103-8004	DI Water		
QAQC	23103	B3	(d12-Perylene)	103	23103-8006	DI Water		
QAQC	23103	B1	(d8-Naphthalene)	55	23103-8002	DI Water	55-100	20-97%
QAQC	23103	B2	(d8-Naphthalene)	100	23103-8004	DI Water		
QAQC	23103	B3	(d8-Naphthalene)	60	23103-8006	DI Water		
QAQC	23103	B1	(PCB030)	82	23103-8002	DI Water	60-111	50-130%
QAQC	23103	B2	(PCB030)	111	23103-8004	DI Water		
QAQC	23103	B3	(PCB030)	60	23103-8006	DI Water		
QAQC	23103	B1	(PCB112)	81	23103-8002	DI Water	71-103	50-130%
QAQC	23103	B2	(PCB112)	103	23103-8004	DI Water		
QAQC	23103	B3	(PCB112)	71	23103-8006	DI Water		
QAQC	23103	B1	(PCB198)	84	23103-8002	DI Water	84-101	47-125%
QAQC	23103	B2	(PCB198)	99	23103-8004	DI Water		

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
QAQC	23103	B3	(PCB198)	101	23103-8006	DI Water		
QAQC	23103	B1	(TCMX)	100	23103-8002	DI Water	66-117	43-125%
QAQC	23103	B2	(TCMX)	117	23103-8004	DI Water		
QAQC	23103	B3	(TCMX)	66	23103-8006	DI Water		
2229	23103	R1	(d10-Acenaphthene)	64	23103-8004	Sediment	58-100	47-119%
2229	23103	R2	(d10-Acenaphthene)	87	23103-8004	Sediment		
2229	23103	R1	(d10-Phenanthrene)	76	23103-8004	Sediment	73-100	45-125%
2229	23103	R2	(d10-Phenanthrene)	98	23103-8004	Sediment		
2229	23103	R1	(d12-Chrysene)	104	23103-8004	Sediment	75-112	44-128%
2229	23103	R2	(d12-Chrysene)	101	23103-8004	Sediment		
2229	23103	R1	(d12-Perylene)	101	23103-8004	Sediment	89-114	46-135%
2229	23103	R2	(d12-Perylene)	102	23103-8004	Sediment		
2229	23103	R1	(d8-Naphthalene)	62	23103-8004	Sediment	34-81	20-97%
2229	23103	R2	(d8-Naphthalene)	51	23103-8004	Sediment		
2229	23103	R1	(PCB030)	71	23103-8004	Sediment	59-98	50-130%
2229	23103	R2	(PCB030)	89	23103-8004	Sediment		
2229	23103	R1	(PCB112)	50	23103-8004	Sediment	48-106	50-130%
2229	23103	R2	(PCB112)	77	23103-8004	Sediment		
2229	23103	R1	(PCB198)	84	23103-8004	Sediment	30-105	47-125%
2229	23103	R2	(PCB198)	72	23103-8004	Sediment		
2229	23103	R1	(TCMX)	68	23103-8004	Sediment	58-108	43-125%
2229	23103	R2	(TCMX)	106	23103-8004	Sediment		
2238	23103	R1	(d10-Acenaphthene)	77	23103-8004	Sediment		
2238	23103	R1	(d10-Phenanthrene)	76	23103-8004	Sediment		
2238	23103	R1	(d12-Chrysene)	89	23103-8004	Sediment		
2238	23103	R1	(d12-Perylene)	101	23103-8004	Sediment		
2238	23103	R1	(d8-Naphthalene)	46	23103-8004	Sediment		
2238	23103	R1	(PCB030)	70	23103-8004	Sediment		
2238	23103	R1	(PCB112)	68	23103-8004	Sediment		
2238	23103	R1	(PCB198)	50	23103-8004	Sediment		
2238	23103	R1	(TCMX)	66	23103-8004	Sediment		
2243	23103	R1	(d10-Acenaphthene)	78	23103-8004	Sediment		
2243	23103	R1	(d10-Phenanthrene)	89	23103-8004	Sediment		
2243	23103	R1	(d12-Chrysene)	104	23103-8004	Sediment		
2243	23103	R1	(d12-Perylene)	101	23103-8004	Sediment		
2243	23103	R1	(d8-Naphthalene)	59	23103-8004	Sediment		
2243	23103	R1	(PCB030)	66	23103-8004	Sediment		
2243	23103	R1	(PCB112)	64	23103-8004	Sediment		
2243	23103	R1	(PCB198)	77	23103-8004	Sediment		
2243	23103	R1	(TCMX)	71	23103-8004	Sediment		
2433	23103	R1	(d10-Acenaphthene)	91	23103-8004	Sediment		
2433	23103	R1	(d10-Phenanthrene)	91	23103-8004	Sediment		
2433	23103	R1	(d12-Chrysene)	101	23103-8004	Sediment		
2433	23103	R1	(d12-Perylene)	102	23103-8004	Sediment		
2433	23103	R1	(d8-Naphthalene)	58	23103-8004	Sediment		
2433	23103	R1	(PCB030)	67	23103-8004	Sediment		
2433	23103	R1	(PCB112)	81	23103-8004	Sediment		
2433	23103	R1	(PCB198)	66	23103-8004	Sediment		
2433	23103	R1	(TCMX)	80	23103-8004	Sediment		
2435	23103	R1	(d10-Acenaphthene)	79	23103-8004	Sediment		
2435	23103	R1	(d10-Phenanthrene)	89	23103-8004	Sediment		
2435	23103	R1	(d12-Chrysene)	102	23103-8004	Sediment		
2435	23103	R1	(d12-Perylene)	100	23103-8004	Sediment		
2435	23103	R1	(d8-Naphthalene)	64	23103-8004	Sediment		
2435	23103	R1	(PCB030)	74	23103-8004	Sediment		
2435	23103	R1	(PCB112)	74	23103-8004	Sediment		
2435	23103	R1	(PCB198)	61	23103-8004	Sediment		
2435	23103	R1	(TCMX)	88	23103-8004	Sediment		
2441	23103	R1	(d10-Acenaphthene)	85	23103-8004	Sediment		

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
2441	23103	R1	(d10-Phenanthrene)	87	23103-8004	Sediment		
2441	23103	R1	(d12-Chrysene)	75	23103-8004	Sediment		
2441	23103	R1	(d12-Perylene)	102	23103-8004	Sediment		
2441	23103	R1	(d8-Naphthalene)	66	23103-8004	Sediment		
2441	23103	R1	(PCB030)	88	23103-8004	Sediment		
2441	23103	R1	(PCB112)	71	23103-8004	Sediment		
2441	23103	R1	(PCB198)	66	23103-8004	Sediment		
2441	23103	R1	(TCMX)	102	23103-8004	Sediment		
BST01	23103	R1	(d10-Acenaphthene)	93	23103-8004	Sediment		
BST01	23103	R1	(d10-Phenanthrene)	83	23103-8004	Sediment		
BST01	23103	R1	(d12-Chrysene)	101	23103-8004	Sediment		
BST01	23103	R1	(d12-Perylene)	100	23103-8004	Sediment		
BST01	23103	R1	(d8-Naphthalene)	53	23103-8004	Sediment		
BST01	23103	R1	(PCB030)	70	23103-8004	Sediment		
BST01	23103	R1	(PCB112)	74	23103-8004	Sediment		
BST01	23103	R1	(PCB198)	101	23103-8004	Sediment		
BST01	23103	R1	(TCMX)	72	23103-8004	Sediment		
BST02	23103	R1	(d10-Acenaphthene)	78	23103-8004	Sediment		
BST02	23103	R1	(d10-Phenanthrene)	85	23103-8004	Sediment		
BST02	23103	R1	(d12-Chrysene)	102	23103-8004	Sediment		
BST02	23103	R1	(d12-Perylene)	104	23103-8004	Sediment		
BST02	23103	R1	(d8-Naphthalene)	56	23103-8004	Sediment		
BST02	23103	R1	(PCB030)	63	23103-8004	Sediment		
BST02	23103	R1	(PCB112)	80	23103-8004	Sediment		
BST02	23103	R1	(PCB198)	82	23103-8004	Sediment		
BST02	23103	R1	(TCMX)	82	23103-8004	Sediment		
BST03	23103	R1	(d10-Acenaphthene)	63	23103-8004	Sediment		
BST03	23103	R1	(d10-Phenanthrene)	87	23103-8004	Sediment		
BST03	23103	R1	(d12-Chrysene)	105	23103-8004	Sediment		
BST03	23103	R1	(d12-Perylene)	106	23103-8004	Sediment		
BST03	23103	R1	(d8-Naphthalene)	46	23103-8004	Sediment		
BST03	23103	R1	(PCB030)	60	23103-8004	Sediment		
BST03	23103	R1	(PCB112)	67	23103-8004	Sediment		
BST03	23103	R1	(PCB198)	92	23103-8004	Sediment		
BST03	23103	R1	(TCMX)	70	23103-8004	Sediment		
BST04	23103	R1	(d10-Acenaphthene)	97	23103-8006	Sediment		
BST04	23103	R1	(d10-Phenanthrene)	100	23103-8006	Sediment		
BST04	23103	R1	(d12-Chrysene)	100	23103-8006	Sediment		
BST04	23103	R1	(d12-Perylene)	105	23103-8006	Sediment		
BST04	23103	R1	(d8-Naphthalene)	55	23103-8006	Sediment		
BST04	23103	R1	(PCB030)	77	23103-8006	Sediment		
BST04	23103	R1	(PCB112)	72	23103-8006	Sediment		
BST04	23103	R1	(PCB198)	68	23103-8006	Sediment		
BST04	23103	R1	(TCMX)	103	23103-8006	Sediment		
BST05	23103	R1	(d10-Acenaphthene)	90	23103-8006	Sediment		
BST05	23103	R1	(d10-Phenanthrene)	100	23103-8006	Sediment		
BST05	23103	R1	(d12-Chrysene)	104	23103-8006	Sediment		
BST05	23103	R1	(d12-Perylene)	100	23103-8006	Sediment		
BST05	23103	R1	(d8-Naphthalene)	53	23103-8006	Sediment		
BST05	23103	R1	(PCB030)	86	23103-8006	Sediment		
BST05	23103	R1	(PCB112)	78	23103-8006	Sediment		
BST05	23103	R1	(PCB198)	68	23103-8006	Sediment		
BST05	23103	R1	(TCMX)	101	23103-8006	Sediment		
BST06	23103	R1	(d10-Acenaphthene)	84	23103-8006	Sediment		
BST06	23103	R1	(d10-Phenanthrene)	97	23103-8006	Sediment		
BST06	23103	R1	(d12-Chrysene)	102	23103-8006	Sediment		
BST06	23103	R1	(d12-Perylene)	100	23103-8006	Sediment		
BST06	23103	R1	(d8-Naphthalene)	53	23103-8006	Sediment		
BST06	23103	R1	(PCB030)	81	23103-8006	Sediment		

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
BST06	23103	R1	(PCB112)	63	23103-8006	Sediment		
BST06	23103	R1	(PCB198)	69	23103-8006	Sediment		
BST06	23103	R1	(TCMX)	88	23103-8006	Sediment		
BST07	23103	R1	(d10-Acenaphthene)	58	23103-8006	Sediment		
BST07	23103	R1	(d10-Phenanthrene)	88	23103-8006	Sediment		
BST07	23103	R1	(d12-Chrysene)	111	23103-8006	Sediment		
BST07	23103	R1	(d12-Perylene)	113	23103-8006	Sediment		
BST07	23103	R1	(d8-Naphthalene)	41	23103-8006	Sediment		
BST07	23103	R1	(PCB030)	69	23103-8006	Sediment		
BST07	23103	R1	(PCB112)	84	23103-8006	Sediment		
BST07	23103	R1	(PCB198)	88	23103-8006	Sediment		
BST07	23103	R1	(TCMX)	99	23103-8006	Sediment		
BST08	23103	R1	(d10-Acenaphthene)	63	23103-8006	Sediment		
BST08	23103	R1	(d10-Phenanthrene)	85	23103-8006	Sediment		
BST08	23103	R1	(d12-Chrysene)	97	23103-8006	Sediment		
BST08	23103	R1	(d12-Perylene)	109	23103-8006	Sediment		
BST08	23103	R1	(d8-Naphthalene)	43	23103-8006	Sediment		
BST08	23103	R1	(PCB030)	74	23103-8006	Sediment		
BST08	23103	R1	(PCB112)	48	23103-8006	Sediment		
BST08	23103	R1	(PCB198)	73	23103-8006	Sediment		
BST08	23103	R1	(TCMX)	82	23103-8006	Sediment		
BST09	23103	R1	(d10-Acenaphthene)	61	23103-8006	Sediment		
BST09	23103	R1	(d10-Phenanthrene)	88	23103-8006	Sediment		
BST09	23103	R1	(d12-Chrysene)	106	23103-8006	Sediment		
BST09	23103	R1	(d12-Perylene)	103	23103-8006	Sediment		
BST09	23103	R1	(d8-Naphthalene)	34	23103-8006	Sediment		
BST09	23103	R1	(PCB030)	67	23103-8006	Sediment		
BST09	23103	R1	(PCB112)	73	23103-8006	Sediment		
BST09	23103	R1	(PCB198)	92	23103-8006	Sediment		
BST09	23103	R1	(TCMX)	77	23103-8006	Sediment		
BST10	23103	R1	(d10-Acenaphthene)	65	23103-8006	Sediment		
BST10	23103	R1	(d10-Phenanthrene)	90	23103-8006	Sediment		
BST10	23103	R1	(d12-Chrysene)	103	23103-8006	Sediment		
BST10	23103	R1	(d12-Perylene)	114	23103-8006	Sediment		
BST10	23103	R1	(d8-Naphthalene)	43	23103-8006	Sediment		
BST10	23103	R1	(PCB030)	69	23103-8006	Sediment		
BST10	23103	R1	(PCB112)	67	23103-8006	Sediment		
BST10	23103	R1	(PCB198)	81	23103-8006	Sediment		
BST10	23103	R1	(TCMX)	79	23103-8006	Sediment		
BST11	23103	R1	(d10-Acenaphthene)	73	23103-8006	Sediment		
BST11	23103	R1	(d10-Phenanthrene)	85	23103-8006	Sediment		
BST11	23103	R1	(d12-Chrysene)	104	23103-8006	Sediment		
BST11	23103	R1	(d12-Perylene)	102	23103-8006	Sediment		
BST11	23103	R1	(d8-Naphthalene)	56	23103-8006	Sediment		
BST11	23103	R1	(PCB030)	76	23103-8006	Sediment		
BST11	23103	R1	(PCB112)	54	23103-8006	Sediment		
BST11	23103	R1	(PCB198)	49	23103-8006	Sediment		
BST11	23103	R1	(TCMX)	75	23103-8006	Sediment		
BST12	23103	R1	(d10-Acenaphthene)	75	23103-8006	Sediment		
BST12	23103	R2	(d10-Acenaphthene)	64	23103-8006	Sediment		
BST12	23103	R1	(d10-Phenanthrene)	75	23103-8006	Sediment		
BST12	23103	R2	(d10-Phenanthrene)	89	23103-8006	Sediment		
BST12	23103	R1	(d12-Chrysene)	95	23103-8006	Sediment		
BST12	23103	R2	(d12-Chrysene)	98	23103-8006	Sediment		
BST12	23103	R1	(d12-Perylene)	110	23103-8006	Sediment		
BST12	23103	R2	(d12-Perylene)	111	23103-8006	Sediment		
BST12	23103	R1	(d8-Naphthalene)	45	23103-8006	Sediment		
BST12	23103	R2	(d8-Naphthalene)	40	23103-8006	Sediment		
BST12	23103	R1	(PCB030)	59	23103-8006	Sediment		

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
BST12	23103	R2	(PCB030)	66	23103-8006	Sediment		
BST12	23103	R1	(PCB112)	58	23103-8006	Sediment		
BST12	23103	R2	(PCB112)	70	23103-8006	Sediment		
BST12	23103	R1	(PCB198)	30	23103-8006	Sediment		
BST12	23103	R2	(PCB198)	73	23103-8006	Sediment		
BST12	23103	R1	(TCMX)	73	23103-8006	Sediment		
BST12	23103	R2	(TCMX)	58	23103-8006	Sediment		
DAC01	23103	R1	(d10-Acenaphthene)	88	23103-8002	Sediment		
DAC01	23103	R1	(d10-Phenanthrene)	89	23103-8002	Sediment		
DAC01	23103	R1	(d12-Chrysene)	106	23103-8002	Sediment		
DAC01	23103	R1	(d12-Perylene)	103	23103-8002	Sediment		
DAC01	23103	R1	(d8-Naphthalene)	42	23103-8002	Sediment		
DAC01	23103	R1	(PCB030)	75	23103-8002	Sediment		
DAC01	23103	R1	(PCB112)	82	23103-8002	Sediment		
DAC01	23103	R1	(PCB198)	101	23103-8002	Sediment		
DAC01	23103	R1	(TCMX)	73	23103-8002	Sediment		
DAC02	23103	R1	(d10-Acenaphthene)	88	23103-8002	Sediment		
DAC02	23103	R1	(d10-Phenanthrene)	90	23103-8002	Sediment		
DAC02	23103	R1	(d12-Chrysene)	88	23103-8002	Sediment		
DAC02	23103	R1	(d12-Perylene)	102	23103-8002	Sediment		
DAC02	23103	R1	(d8-Naphthalene)	43	23103-8002	Sediment		
DAC02	23103	R1	(PCB030)	81	23103-8002	Sediment		
DAC02	23103	R1	(PCB112)	92	23103-8002	Sediment		
DAC02	23103	R1	(PCB198)	94	23103-8002	Sediment		
DAC02	23103	R1	(TCMX)	94	23103-8002	Sediment		
DAC03	23103	R1	(d10-Acenaphthene)	81	23103-8002	Sediment		
DAC03	23103	R1	(d10-Phenanthrene)	87	23103-8002	Sediment		
DAC03	23103	R1	(d12-Chrysene)	103	23103-8002	Sediment		
DAC03	23103	R1	(d12-Perylene)	107	23103-8002	Sediment		
DAC03	23103	R1	(d8-Naphthalene)	36	23103-8002	Sediment		
DAC03	23103	R1	(PCB030)	71	23103-8002	Sediment		
DAC03	23103	R1	(PCB112)	87	23103-8002	Sediment		
DAC03	23103	R1	(PCB198)	92	23103-8002	Sediment		
DAC03	23103	R1	(TCMX)	74	23103-8002	Sediment		
DAC04	23103	R1	(d10-Acenaphthene)	91	23103-8002	Sediment		
DAC04	23103	R1	(d10-Phenanthrene)	85	23103-8002	Sediment		
DAC04	23103	R1	(d12-Chrysene)	90	23103-8002	Sediment		
DAC04	23103	R1	(d12-Perylene)	89	23103-8002	Sediment		
DAC04	23103	R1	(d8-Naphthalene)	44	23103-8002	Sediment		
DAC04	23103	R1	(PCB030)	98	23103-8002	Sediment		
DAC04	23103	R1	(PCB112)	90	23103-8002	Sediment		
DAC04	23103	R1	(PCB198)	93	23103-8002	Sediment		
DAC04	23103	R1	(TCMX)	98	23103-8002	Sediment		
DAC05	23103	R1	(d10-Acenaphthene)	100	23103-8002	Sediment		
DAC05	23103	R1	(d10-Phenanthrene)	87	23103-8002	Sediment		
DAC05	23103	R1	(d12-Chrysene)	103	23103-8002	Sediment		
DAC05	23103	R1	(d12-Perylene)	106	23103-8002	Sediment		
DAC05	23103	R1	(d8-Naphthalene)	49	23103-8002	Sediment		
DAC05	23103	R1	(PCB030)	83	23103-8002	Sediment		
DAC05	23103	R1	(PCB112)	106	23103-8002	Sediment		
DAC05	23103	R1	(PCB198)	105	23103-8002	Sediment		
DAC05	23103	R1	(TCMX)	77	23103-8002	Sediment		
DAC06	23103	R1	(d10-Acenaphthene)	77	23103-8002	Sediment		
DAC06	23103	R2	(d10-Acenaphthene)	98	23103-8002	Sediment		
DAC06	23103	R1	(d10-Phenanthrene)	89	23103-8002	Sediment		
DAC06	23103	R2	(d10-Phenanthrene)	87	23103-8002	Sediment		
DAC06	23103	R1	(d12-Chrysene)	103	23103-8002	Sediment		
DAC06	23103	R2	(d12-Chrysene)	107	23103-8002	Sediment		
DAC06	23103	R1	(d12-Perylene)	102	23103-8002	Sediment		

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
DAC06	23103	R2	(d12-Perylene)	103	23103-8002	Sediment		
DAC06	23103	R1	(d8-Naphthalene)	47	23103-8002	Sediment		
DAC06	23103	R2	(d8-Naphthalene)	56	23103-8002	Sediment		
DAC06	23103	R1	(PCB030)	72	23103-8002	Sediment		
DAC06	23103	R2	(PCB030)	74	23103-8002	Sediment		
DAC06	23103	R1	(PCB112)	78	23103-8002	Sediment		
DAC06	23103	R2	(PCB112)	73	23103-8002	Sediment		
DAC06	23103	R1	(PCB198)	97	23103-8002	Sediment		
DAC06	23103	R2	(PCB198)	87	23103-8002	Sediment		
DAC06	23103	R1	(TCMX)	75	23103-8002	Sediment		
DAC06	23103	R2	(TCMX)	80	23103-8002	Sediment		
DAC07	23103	R1	(d10-Acenaphthene)	88	23103-8004	Sediment		
DAC07	23103	R1	(d10-Phenanthrene)	89	23103-8004	Sediment		
DAC07	23103	R1	(d12-Chrysene)	104	23103-8004	Sediment		
DAC07	23103	R1	(d12-Perylene)	106	23103-8004	Sediment		
DAC07	23103	R1	(d8-Naphthalene)	50	23103-8004	Sediment		
DAC07	23103	R1	(PCB030)	72	23103-8004	Sediment		
DAC07	23103	R1	(PCB112)	91	23103-8004	Sediment		
DAC07	23103	R1	(PCB198)	80	23103-8004	Sediment		
DAC07	23103	R1	(TCMX)	84	23103-8004	Sediment		
DAC08	23103	R1	(d10-Acenaphthene)	92	23103-8004	Sediment		
DAC08	23103	R1	(d10-Phenanthrene)	76	23103-8004	Sediment		
DAC08	23103	R1	(d12-Chrysene)	105	23103-8004	Sediment		
DAC08	23103	R1	(d12-Perylene)	102	23103-8004	Sediment		
DAC08	23103	R1	(d8-Naphthalene)	81	23103-8004	Sediment		
DAC08	23103	R1	(PCB030)	64	23103-8004	Sediment		
DAC08	23103	R1	(PCB112)	49	23103-8004	Sediment		
DAC08	23103	R1	(PCB198)	97	23103-8004	Sediment		
DAC08	23103	R1	(TCMX)	83	23103-8004	Sediment		
DAC09	23103	R1	(d10-Acenaphthene)	89	23103-8004	Sediment		
DAC09	23103	R1	(d10-Phenanthrene)	98	23103-8004	Sediment		
DAC09	23103	R1	(d12-Chrysene)	100	23103-8004	Sediment		
DAC09	23103	R1	(d12-Perylene)	104	23103-8004	Sediment		
DAC09	23103	R1	(d8-Naphthalene)	43	23103-8004	Sediment		
DAC09	23103	R1	(PCB030)	85	23103-8004	Sediment		
DAC09	23103	R1	(PCB112)	98	23103-8004	Sediment		
DAC09	23103	R1	(PCB198)	84	23103-8004	Sediment		
DAC09	23103	R1	(TCMX)	108	23103-8004	Sediment		
SWZ01	23103	R1	(d10-Acenaphthene)	78	23103-8002	Sediment		
SWZ01	23103	R1	(d10-Phenanthrene)	87	23103-8002	Sediment		
SWZ01	23103	R1	(d12-Chrysene)	112	23103-8002	Sediment		
SWZ01	23103	R1	(d12-Perylene)	114	23103-8002	Sediment		
SWZ01	23103	R1	(d8-Naphthalene)	43	23103-8002	Sediment		
SWZ01	23103	R1	(PCB030)	76	23103-8002	Sediment		
SWZ01	23103	R1	(PCB112)	89	23103-8002	Sediment		
SWZ01	23103	R1	(PCB198)	102	23103-8002	Sediment		
SWZ01	23103	R1	(TCMX)	94	23103-8002	Sediment		
SWZ02	23103	R1	(d10-Acenaphthene)	75	23103-8002	Sediment		
SWZ02	23103	R1	(d10-Phenanthrene)	73	23103-8002	Sediment		
SWZ02	23103	R1	(d12-Chrysene)	98	23103-8002	Sediment		
SWZ02	23103	R1	(d12-Perylene)	107	23103-8002	Sediment		
SWZ02	23103	R1	(d8-Naphthalene)	53	23103-8002	Sediment		
SWZ02	23103	R1	(PCB030)	84	23103-8002	Sediment		
SWZ02	23103	R1	(PCB112)	75	23103-8002	Sediment		
SWZ02	23103	R1	(PCB198)	100	23103-8002	Sediment		
SWZ02	23103	R1	(TCMX)	97	23103-8002	Sediment		
SWZ03	23103	R1	(d10-Acenaphthene)	98	23103-8002	Sediment		
SWZ03	23103	R1	(d10-Phenanthrene)	96	23103-8002	Sediment		
SWZ03	23103	R1	(d12-Chrysene)	102	23103-8002	Sediment		

Sediment chemical analyses (definitive)—organics (% recovery of surrogates)—CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
SWZ03	23103	R1	(d12-Perylene)	103	23103-8002	Sediment		
SWZ03	23103	R1	(d8-Naphthalene)	62	23103-8002	Sediment		
SWZ03	23103	R1	(PCB030)	91	23103-8002	Sediment		
SWZ03	23103	R1	(PCB112)	90	23103-8002	Sediment		
SWZ03	23103	R1	(PCB198)	100	23103-8002	Sediment		
SWZ03	23103	R1	(TCMX)	95	23103-8002	Sediment		
SWZ04	23103	R1	(d10-Acenaphthene)	80	23103-8002	Sediment		
SWZ04	23103	R1	(d10-Phenanthrene)	78	23103-8002	Sediment		
SWZ04	23103	R1	(d12-Chrysene)	111	23103-8002	Sediment		
SWZ04	23103	R1	(d12-Perylene)	109	23103-8002	Sediment		
SWZ04	23103	R1	(d8-Naphthalene)	40	23103-8002	Sediment		
SWZ04	23103	R1	(PCB030)	68	23103-8002	Sediment		
SWZ04	23103	R1	(PCB112)	59	23103-8002	Sediment		
SWZ04	23103	R1	(PCB198)	103	23103-8002	Sediment		
SWZ04	23103	R1	(TCMX)	80	23103-8002	Sediment		
SWZ05	23103	R1	(d10-Acenaphthene)	81	23103-8002	Sediment		
SWZ05	23103	R1	(d10-Phenanthrene)	87	23103-8002	Sediment		
SWZ05	23103	R1	(d12-Chrysene)	95	23103-8002	Sediment		
SWZ05	23103	R1	(d12-Perylene)	99	23103-8002	Sediment		
SWZ05	23103	R1	(d8-Naphthalene)	55	23103-8002	Sediment		
SWZ05	23103	R1	(PCB030)	94	23103-8002	Sediment		
SWZ05	23103	R1	(PCB112)	75	23103-8002	Sediment		
SWZ05	23103	R1	(PCB198)	90	23103-8002	Sediment		
SWZ05	23103	R1	(TCMX)	90	23103-8002	Sediment		
SWZ06	23103	R1	(d10-Acenaphthene)	98	23103-8002	Sediment		
SWZ06	23103	R1	(d10-Phenanthrene)	92	23103-8002	Sediment		
SWZ06	23103	R1	(d12-Chrysene)	103	23103-8002	Sediment		
SWZ06	23103	R1	(d12-Perylene)	107	23103-8002	Sediment		
SWZ06	23103	R1	(d8-Naphthalene)	45	23103-8002	Sediment		
SWZ06	23103	R1	(PCB030)	78	23103-8002	Sediment		
SWZ06	23103	R1	(PCB112)	87	23103-8002	Sediment		
SWZ06	23103	R1	(PCB198)	91	23103-8002	Sediment		
SWZ06	23103	R1	(TCMX)	92	23103-8002	Sediment		

Tissue chemical analyses (definitive)--% recovery of surrogates--CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
QAQC	23103b	B1	(d10-Acenaphthene)	91	23103-8042	DI Water	71-91%	47-119%
QAQC	23103b	B2	(d10-Acenaphthene)	71	23103-8044	DI Water		
QAQC	23103b	B1	(d10-Phenanthrene)	88	23103-8042	DI Water	85-88%	45-125%
QAQC	23103b	B2	(d10-Phenanthrene)	85	23103-8044	DI Water		
QAQC	23103b	B1	(d12-Chrysene)	89	23103-8042	DI Water	89-99%	44-128%
QAQC	23103b	B2	(d12-Chrysene)	99	23103-8044	DI Water		
QAQC	23103b	B1	(d12-Perylene)	86	23103-8042	DI Water	86-91%	46-135%
QAQC	23103b	B2	(d12-Perylene)	91	23103-8044	DI Water		
QAQC	23103b	B1	(d8-Naphthalene)	100	23103-8042	DI Water	42-100%	20-97%
QAQC	23103b	B2	(d8-Naphthalene)	42	23103-8044	DI Water		
QAQC	23103b	B1	(PCB030)	106	23103-8042	DI Water	106%	50-130%
QAQC	23103b	B2	(PCB030)	106	23103-8044	DI Water		
QAQC	23103b	B1	(PCB112)	106	23103-8042	DI Water	106%	50-130%
QAQC	23103b	B2	(PCB112)	106	23103-8044	DI Water		
QAQC	23103b	B1	(PCB198)	100	23103-8042	DI Water	100-112%	47-125%
QAQC	23103b	B2	(PCB198)	112	23103-8044	DI Water		
QAQC	23103b	B1	(TCMX)	111	23103-8042	DI Water	111%	43-125%
QAQC	23103b	B2	(TCMX)	111	23103-8044	DI Water		
2229	23103b	R1	(d10-Acenaphthene)	73	23103-8044	Clam Tissue	67-96%	47-119%
2229	23103b	R1	(d10-Phenanthrene)	70	23103-8044	Clam Tissue	67-100%	45-125%
2229	23103b	R1	(d12-Chrysene)	76	23103-8044	Clam Tissue	58-94%	44-128%
2229	23103b	R1	(d12-Perylene)	71	23103-8044	Clam Tissue	54-91%	46-135%

Tissue chemical analyses (definitive)--% recovery of surrogates--CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
2229	23103b	R1	(d8-Naphthalene)	64	23103-8044	Clam Tissue	55-100%	20-97%
2238	23103b	R1	(d10-Acenaphthene)	83	23103-8044	Clam Tissue		
2238	23103b	R1	(d10-Phenanthrene)	84	23103-8044	Clam Tissue		
2238	23103b	R1	(d12-Chrysene)	87	23103-8044	Clam Tissue		
2238	23103b	R1	(d12-Perylene)	78	23103-8044	Clam Tissue		
2238	23103b	R1	(d8-Naphthalene)	85	23103-8044	Clam Tissue		
2243	23103b	R1	(d10-Acenaphthene)	74	23103-8044	Clam Tissue		
2243	23103b	R1	(d10-Phenanthrene)	70	23103-8044	Clam Tissue		
2243	23103b	R1	(d12-Chrysene)	78	23103-8044	Clam Tissue		
2243	23103b	R1	(d12-Perylene)	72	23103-8044	Clam Tissue		
2243	23103b	R1	(d8-Naphthalene)	64	23103-8044	Clam Tissue		
2433	23103b	R1	(d10-Acenaphthene)	91	23103-8042	Clam Tissue		
2433	23103b	R1	(d10-Phenanthrene)	88	23103-8042	Clam Tissue		
2433	23103b	R1	(d12-Chrysene)	89	23103-8042	Clam Tissue		
2433	23103b	R1	(d12-Perylene)	86	23103-8042	Clam Tissue		
2433	23103b	R1	(d8-Naphthalene)	100	23103-8042	Clam Tissue		
2433	23103b	R1	(PCB030)	84	23103-8042	Clam Tissue	78-110%	50-130%
2433	23103b	R1	(PCB112)	83	23103-8042	Clam Tissue	71-107%	50-130%
2433	23103b	R1	(PCB198)	85	23103-8042	Clam Tissue	70-105%	47-125%
2433	23103b	R1	(TCMX)	92	23103-8042	Clam Tissue	84-123%	43-125%
2435	23103b	R1	(d10-Acenaphthene)	93	23103-8042	Clam Tissue		
2435	23103b	R2	(d10-Acenaphthene)	74	23103-8042	Clam Tissue		
2435	23103b	R1	(d10-Phenanthrene)	97	23103-8042	Clam Tissue		
2435	23103b	R2	(d10-Phenanthrene)	76	23103-8042	Clam Tissue		
2435	23103b	R1	(d12-Chrysene)	94	23103-8042	Clam Tissue		
2435	23103b	R2	(d12-Chrysene)	74	23103-8042	Clam Tissue		
2435	23103b	R1	(d12-Perylene)	89	23103-8042	Clam Tissue		
2435	23103b	R2	(d12-Perylene)	70	23103-8042	Clam Tissue		
2435	23103b	R1	(d8-Naphthalene)	73	23103-8042	Clam Tissue		
2435	23103b	R2	(d8-Naphthalene)	66	23103-8042	Clam Tissue		
2435	23103b	R1	(PCB030)	109	23103-8042	Clam Tissue		
2435	23103b	R2	(PCB030)	100	23103-8042	Clam Tissue		
2435	23103b	R1	(PCB112)	100	23103-8042	Clam Tissue		
2435	23103b	R2	(PCB112)	98	23103-8042	Clam Tissue		
2435	23103b	R1	(PCB198)	101	23103-8042	Clam Tissue		
2435	23103b	R2	(PCB198)	98	23103-8042	Clam Tissue		
2435	23103b	R1	(TCMX)	99	23103-8042	Clam Tissue		
2435	23103b	R2	(TCMX)	109	23103-8042	Clam Tissue		
2441	23103b	R1	(d10-Acenaphthene)	91	23103-8042	Clam Tissue		
2441	23103b	R1	(d10-Phenanthrene)	88	23103-8042	Clam Tissue		
2441	23103b	R1	(d12-Chrysene)	89	23103-8042	Clam Tissue		
2441	23103b	R1	(d12-Perylene)	86	23103-8042	Clam Tissue		
2441	23103b	R1	(d8-Naphthalene)	100	23103-8042	Clam Tissue		
2441	23103b	R1	(PCB030)	87	23103-8042	Clam Tissue		
2441	23103b	R1	(PCB112)	88	23103-8042	Clam Tissue		
2441	23103b	R1	(PCB198)	90	23103-8042	Clam Tissue		
2441	23103b	R1	(TCMX)	94	23103-8042	Clam Tissue		
BST 04-B	23103b	R1	(d10-Acenaphthene)	81	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(d10-Phenanthrene)	84	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(d12-Chrysene)	74	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(d12-Perylene)	69	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(d8-Naphthalene)	69	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(PCB030)	86	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(PCB112)	82	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(PCB198)	81	23103-8044	Clam Tissue		
BST 04-B	23103b	R1	(TCMX)	99	23103-8044	Clam Tissue		
BST 04-C	23103b	R1	(d10-Acenaphthene)	67	23103-8044	Clam Tissue		
BST 04-C	23103b	R2	(d10-Acenaphthene)	77	23103-8044	Clam Tissue		
BST 04-C	23103b	R1	(d10-Phenanthrene)	71	23103-8044	Clam Tissue		
BST 04-C	23103b	R2	(d10-Phenanthrene)	77	23103-8044	Clam Tissue		

Tissue chemical analyses (definitive)--% recovery of surrogates--CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
BST 04-C	23103b	R1	(d12-Chrysene)	77	23103-8044	Clam Tissue		
BST 04-C	23103b	R2	(d12-Chrysene)	89	23103-8044	Clam Tissue		
BST 04-C	23103b	R1	(d12-Perylene)	72	23103-8044	Clam Tissue		
BST 04-C	23103b	R2	(d12-Perylene)	83	23103-8044	Clam Tissue		
BST 04-C	23103b	R1	(d8-Naphthalene)	59	23103-8044	Clam Tissue		
BST 04-C	23103b	R2	(d8-Naphthalene)	67	23103-8044	Clam Tissue		
BST01	23103b	R1	(d10-Acenaphthene)	79	23103-8042	Clam Tissue		
BST01	23103b	R1	(d10-Phenanthrene)	82	23103-8042	Clam Tissue		
BST01	23103b	R1	(d12-Chrysene)	80	23103-8042	Clam Tissue		
BST01	23103b	R1	(d12-Perylene)	82	23103-8042	Clam Tissue		
BST01	23103b	R1	(d8-Naphthalene)	71	23103-8042	Clam Tissue		
BST01	23103b	R1	(PCB030)	85	23103-8042	Clam Tissue		
BST01	23103b	R1	(PCB112)	82	23103-8042	Clam Tissue		
BST01	23103b	R1	(PCB198)	85	23103-8042	Clam Tissue		
BST01	23103b	R1	(TCMX)	91	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(d10-Acenaphthene)	69	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(d10-Phenanthrene)	73	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(d12-Chrysene)	70	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(d12-Perylene)	70	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(d8-Naphthalene)	58	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(PCB030)	93	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(PCB112)	92	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(PCB198)	91	23103-8042	Clam Tissue		
BST04-A	23103b	R1	(TCMX)	97	23103-8042	Clam Tissue		
BST05	23103b	R1	(d10-Acenaphthene)	74	23103-8042	Clam Tissue		
BST05	23103b	R1	(d10-Phenanthrene)	78	23103-8042	Clam Tissue		
BST05	23103b	R1	(d12-Chrysene)	74	23103-8042	Clam Tissue		
BST05	23103b	R1	(d12-Perylene)	74	23103-8042	Clam Tissue		
BST05	23103b	R1	(d8-Naphthalene)	55	23103-8042	Clam Tissue		
BST05	23103b	R1	(PCB030)	89	23103-8042	Clam Tissue		
BST05	23103b	R1	(PCB112)	87	23103-8042	Clam Tissue		
BST05	23103b	R1	(PCB198)	85	23103-8042	Clam Tissue		
BST05	23103b	R1	(TCMX)	96	23103-8042	Clam Tissue		
BST06	23103b	R1	(d10-Acenaphthene)	79	23103-8042	Clam Tissue		
BST06	23103b	R1	(d10-Phenanthrene)	82	23103-8042	Clam Tissue		
BST06	23103b	R1	(d12-Chrysene)	79	23103-8042	Clam Tissue		
BST06	23103b	R1	(d12-Perylene)	74	23103-8042	Clam Tissue		
BST06	23103b	R1	(d8-Naphthalene)	62	23103-8042	Clam Tissue		
BST06	23103b	R1	(PCB030)	78	23103-8042	Clam Tissue		
BST06	23103b	R1	(PCB112)	76	23103-8042	Clam Tissue		
BST06	23103b	R1	(PCB198)	75	23103-8042	Clam Tissue		
BST06	23103b	R1	(TCMX)	84	23103-8042	Clam Tissue		
BST07	23103b	R1	(d10-Acenaphthene)	76	23103-8042	Clam Tissue		
BST07	23103b	R1	(d10-Phenanthrene)	77	23103-8042	Clam Tissue		
BST07	23103b	R1	(d12-Chrysene)	74	23103-8042	Clam Tissue		
BST07	23103b	R1	(d12-Perylene)	71	23103-8042	Clam Tissue		
BST07	23103b	R1	(d8-Naphthalene)	58	23103-8042	Clam Tissue		
BST07	23103b	R1	(PCB030)	86	23103-8042	Clam Tissue		
BST07	23103b	R1	(PCB112)	83	23103-8042	Clam Tissue		
BST07	23103b	R1	(PCB198)	86	23103-8042	Clam Tissue		
BST07	23103b	R1	(TCMX)	92	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(d10-Acenaphthene)	88	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(d10-Phenanthrene)	90	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(d12-Chrysene)	81	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(d12-Perylene)	76	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(d8-Naphthalene)	82	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(PCB030)	88	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(PCB112)	83	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(PCB198)	79	23103-8042	Clam Tissue		
DAC 01	23103b	R1	(TCMX)	97	23103-8042	Clam Tissue		

Tissue chemical analyses (definitive)--% recovery of surrogates--CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
DAC 03	23103b	R1	(d10-Acenaphthene)	80	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(d10-Phenanthrene)	84	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(d12-Chrysene)	75	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(d12-Perylene)	70	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(d8-Naphthalene)	74	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(PCB030)	83	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(PCB112)	80	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(PCB198)	78	23103-8042	Clam Tissue		
DAC 03	23103b	R1	(TCMX)	92	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(d10-Acenaphthene)	78	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(d10-Phenanthrene)	77	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(d12-Chrysene)	70	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(d12-Perylene)	68	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(d8-Naphthalene)	70	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(PCB030)	90	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(PCB112)	107	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(PCB198)	104	23103-8042	Clam Tissue		
DAC 05-A	23103b	R1	(TCMX)	109	23103-8042	Clam Tissue		
DAC 05-B	23103b	R1	(d10-Acenaphthene)	72	23103-8044	Clam Tissue		
DAC 05-B	23103b	R1	(d10-Phenanthrene)	71	23103-8044	Clam Tissue		
DAC 05-B	23103b	R1	(d12-Chrysene)	76	23103-8044	Clam Tissue		
DAC 05-B	23103b	R1	(d12-Perylene)	70	23103-8044	Clam Tissue		
DAC 05-B	23103b	R1	(d8-Naphthalene)	70	23103-8044	Clam Tissue		
DAC 05-C	23103b	R1	(d10-Acenaphthene)	68	23103-8044	Clam Tissue		
DAC 05-C	23103b	R1	(d10-Phenanthrene)	70	23103-8044	Clam Tissue		
DAC 05-C	23103b	R1	(d12-Chrysene)	80	23103-8044	Clam Tissue		
DAC 05-C	23103b	R1	(d12-Perylene)	74	23103-8044	Clam Tissue		
DAC 05-C	23103b	R1	(d8-Naphthalene)	65	23103-8044	Clam Tissue		
DAC 07	23103b	R1	(d10-Acenaphthene)	80	23103-8044	Clam Tissue		
DAC 07	23103b	R1	(d10-Phenanthrene)	76	23103-8044	Clam Tissue		
DAC 07	23103b	R1	(d12-Chrysene)	76	23103-8044	Clam Tissue		
DAC 07	23103b	R1	(d12-Perylene)	70	23103-8044	Clam Tissue		
DAC 07	23103b	R1	(d8-Naphthalene)	69	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(d10-Acenaphthene)	84	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(d10-Phenanthrene)	79	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(d12-Chrysene)	65	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(d12-Perylene)	54	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(d8-Naphthalene)	75	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(PCB030)	84	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(PCB112)	76	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(PCB198)	70	23103-8044	Clam Tissue		
DAC 09	23103b	R1	(TCMX)	94	23103-8044	Clam Tissue		
SWZ 01-A	23103b	R1	(d10-Acenaphthene)	87	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(d10-Phenanthrene)	88	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(d12-Chrysene)	82	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(d12-Perylene)	74	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(d8-Naphthalene)	83	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(PCB030)	110	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(PCB112)	104	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(PCB198)	105	23103-8042	Clam Tissue		
SWZ 01-A	23103b	R1	(TCMX)	123	23103-8042	Clam Tissue		
SWZ 01-B	23103b	R1	(d10-Acenaphthene)	88	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(d10-Phenanthrene)	86	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(d12-Chrysene)	78	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(d12-Perylene)	73	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(d8-Naphthalene)	78	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(PCB030)	92	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(PCB112)	89	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(PCB198)	88	23103-8044	Clam Tissue		
SWZ 01-B	23103b	R1	(TCMX)	101	23103-8044	Clam Tissue		

Tissue chemical analyses (definitive)--% recovery of surrogates--CRG Marine Laboratories, Inc.

Station	Project ID	Replicate	Parameter	Result	Batch ID	Matrix	Range for all samples	Acceptance range
SWZ 01-C	23103b	R1	(d10-Acenaphthene)	81	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(d10-Phenanthrene)	78	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(d12-Chrysene)	69	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(d12-Perylene)	64	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(d8-Naphthalene)	75	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(PCB030)	85	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(PCB112)	77	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(PCB198)	80	23103-8044	Clam Tissue		
SWZ 01-C	23103b	R1	(TCMX)	94	23103-8044	Clam Tissue		
SWZ 02	23103b	R1	(d10-Acenaphthene)	71	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(d10-Phenanthrene)	67	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(d12-Chrysene)	58	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(d12-Perylene)	54	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(d8-Naphthalene)	63	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(PCB030)	80	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(PCB112)	71	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(PCB198)	71	23103-8042	Clam Tissue		
SWZ 02	23103b	R1	(TCMX)	87	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(d10-Acenaphthene)	77	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(d10-Phenanthrene)	77	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(d12-Chrysene)	70	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(d12-Perylene)	64	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(d8-Naphthalene)	65	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(PCB030)	89	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(PCB112)	83	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(PCB198)	86	23103-8042	Clam Tissue		
SWZ 04	23103b	R1	(TCMX)	96	23103-8042	Clam Tissue		
TO-1	23103b	R1	(d10-Acenaphthene)	96	23103-8042	Clam Tissue		
TO-1	23103b	R1	(d10-Phenanthrene)	98	23103-8042	Clam Tissue		
TO-1	23103b	R1	(d12-Chrysene)	89	23103-8042	Clam Tissue		
TO-1	23103b	R1	(d12-Perylene)	91	23103-8042	Clam Tissue		
TO-1	23103b	R1	(d8-Naphthalene)	81	23103-8042	Clam Tissue		
TO-1	23103b	R1	(PCB030)	104	23103-8042	Clam Tissue		
TO-1	23103b	R1	(PCB112)	94	23103-8042	Clam Tissue		
TO-1	23103b	R1	(PCB198)	104	23103-8042	Clam Tissue		
TO-1	23103b	R1	(TCMX)	98	23103-8042	Clam Tissue		
TO-2	23103b	R1	(d10-Acenaphthene)	81	23103-8044	Clam Tissue		
TO-2	23103b	R1	(d10-Phenanthrene)	77	23103-8044	Clam Tissue		
TO-2	23103b	R1	(d12-Chrysene)	68	23103-8044	Clam Tissue		
TO-2	23103b	R1	(d12-Perylene)	61	23103-8044	Clam Tissue		
TO-2	23103b	R1	(d8-Naphthalene)	76	23103-8044	Clam Tissue		
TO-2	23103b	R1	(PCB030)	86	23103-8044	Clam Tissue		
TO-2	23103b	R1	(PCB112)	78	23103-8044	Clam Tissue		
TO-2	23103b	R1	(PCB198)	76	23103-8044	Clam Tissue		
TO-2	23103b	R1	(TCMX)	98	23103-8044	Clam Tissue		
TO-3	23103b	R1	(d10-Acenaphthene)	96	23103-8044	Clam Tissue		
TO-3	23103b	R1	(d10-Phenanthrene)	100	23103-8044	Clam Tissue		
TO-3	23103b	R1	(d12-Chrysene)	86	23103-8044	Clam Tissue		
TO-3	23103b	R1	(d12-Perylene)	79	23103-8044	Clam Tissue		
TO-3	23103b	R1	(d8-Naphthalene)	85	23103-8044	Clam Tissue		
TO-3	23103b	R1	(PCB030)	99	23103-8044	Clam Tissue		
TO-3	23103b	R1	(PCB112)	94	23103-8044	Clam Tissue		
TO-3	23103b	R1	(PCB198)	93	23103-8044	Clam Tissue		
TO-3	23103b	R1	(TCMX)	109	23103-8044	Clam Tissue		

Sediment chemistry data (definitive)—TOC QC data (all results in mg/kg)—TestAmerica Analytical Testing Corporation

Laboratory controls

known value	analyzed value	% recovery	target range	Q.C. batch
6430	5800	90	65-135	4955

Sediment chemistry data (definitive)—TOC QC data (all results in mg/kg)—TestAmerica Analytical Testing Corporation

6430	6610	103	65-135	4727
6430	5710	89	65-135	4725
6430	5880	91	65-135	4726

Laboratory blank data

blank	qc batch
< 1000	4955
< 1000	4725
< 1000	4726
< 1000	4724

Laboratory duplicates (corrected for dry weight)

original value	duplicate	RPD	limit	Q.C. batch	sample dup'd
48400	50900	5.04	25	4955	03-A133833
20600	23700	14	25	4724	03-A134332
3140	3290	4.67	25	4725	03-A134351
< 1000	< 1000	n/a	25	4726	03-A135429

Analytical batches (definitive)

Station Code	Replicate	Sediment Metals	Sediment PAHs, PCBs, Pesticides	Sediment TOC	Tissue Metals	Tissue Pesticides, PAHs (1)	Tissue PCBs (1)	Tissue Aroclors	Tissue Lipids
2229	1	23103-8130	23103-8004	4725	23103-9003	23103-8044	23103-8044	23103-8042	23103-9096
2229	2		23103-8004		23103-9003				
2238	1	23103-8130	23103-8004	4725	23103-9003	23103-8044	23103-8044	23103-8042	23103-9096
2243	1	23103-8130	23103-8004	4725	23103-9003	23103-8044	23103-8044	23103-8042	23103-9096
2433	1	23103-8131	23103-8004	4725	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
2435	1	23103-8131	23103-8004	4725	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
2435	2			4725					23103-9096
2441	1	23103-8131	23103-8004	4726	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
SWZ01	1	23103-8130	23103-8002	4724	23103-9003	23103-8042/8044	23103-8042/8044	23103-8042	23103-9096
SWZ01	2	23103-8130		4724					
SWZ02	1	23103-8130	23103-8002	4724	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
SWZ03	1	23103-8130	23103-8002	4724					
SWZ04	1	23103-8130	23103-8002	4724	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
SWZ05	1	23103-8130	23103-8002	4724					
SWZ06	1	23103-8130	23103-8002	4724					
BST01	1	23103-8131	23103-8004	4726	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
BST02	1	23103-8131	23103-8004	4726					
BST03	1	23103-8131	23103-8004	4726					
BST04	1	23103-8131	23103-8006	4726	23103-9003	23103-8042/8044	23103-8042/8044	23103-8042	23103-9096
BST04	2							23103-8042	23103-9096
BST05	1	23103-8131	23103-8006	4726	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
BST05	2	23103-8131							
BST06	1	23103-8131	23103-8006	4726	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
BST06	2				23103-9003				
BST07	1	23103-8131	23103-8006	4726	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
BST08	1	23103-8131	23103-8006	4955					
BST09	1	23103-8131	23103-8006	4955					
BST10	1	23103-8131	23103-8006	4955					
BST10	2	23103-8131							
BST11	1	23103-8131	23103-8006	4955					
BST12	1	23103-8131	23103-8006	4955					
BST12	2		23103-8006						
DAC01	1	23103-8130	23103-8002	4724	23103-9003	23103-8042	23103-8042	23103-8042	23103-9096
DAC02	1	23103-8130	23103-8002	4724					
DAC03	1	23103-8130	23103-8002	4724	23103-9003	23103-8042		23103-8042	23103-9096
DAC04	1	23103-8131	23103-8002	4724					
DAC04	2	23103-8130							
DAC05	1	23103-8130	23103-8002	4725	23103-9003	23103-	23103-	23103-8042	23103-9096

Analytical batches (definitive)

Station Code	Replicate	Sediment Metals	Sediment PAHs, PCBs, Pesticides	Sediment TOC	Tissue Metals	Tissue Pesticides, PAHs (1)	Tissue PCBs (1)	Tissue Aroclors	Tissue Lipids
						8042/8044	8042/8044		
DAC06	1	23103-8130	23103-8002	4725					
DAC06	2		23103-8002						
DAC07	1	23103-8130	23103-8004	4725	23103-9003	23103-8044	23103-8044	23103-8042	23103-9096
DAC08	1	23103-8130	23103-8004	4725					
DAC09	1	23103-8130	23103-8004	4725	23103-9003	23103-8044	23103-8044	23103-8042	23103-9096
TO-1	1				23103-9003	23103-8042	23103-8042		23103-9096
TO-2	1				23103-9003	23103-8044	23103-8044		23103-9096
TO-3	1				23103-9003	23103-8044	23103-8044	23103-8042	23103-9096
TO-3	2				23103-9003				

(1) Where two batch numbers are shown, field replicate A was analyzed in batch 8042–replicates B and C were analyzed in batch 8044.

10-day *Eohaustorius* survival toxicity test in sediment (definitive)—Water quality data—Marine Pollution Studies Laboratory

		Overlying					Interstitial						
Station	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	pH	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Total S2- (mg/L)	H2S (mg/L)
BST01	0	7.75	5.79	22.3	0.8	0.011	7.4	30.5	4.8	0.029	0.029	NA	NA
BST02	0	7.66	8.56	22.1	1.9	0.021	7.3	30.6	8.4	0.043	0.043	NA	NA
BST03	0	7.97	8.34	21.2	1.4	0.031	7.5	29.5	7.5	0.057	0.057	NA	NA
BST04	0	7.72	8.55	23.9	1.3	0.016	7.5	31	5.6	0.043	0.043	NA	NA
BST05	0	7.91	7.90	21.9	0.9	0.017	7.4	30	5.2	0.030	0.030	NA	NA
BST06	0	7.95	8.21	21.8	0.6	0.013	7.4	29.6	3.8	0.024	0.024	NA	NA
BST07	0	7.72	8.53	22.6	2.1	0.026	7.4	29.9	6.5	0.041	0.041	NA	NA
BST08	0	7.97	8.03	22.4	1.6	0.035	7.4	29.4	8.5	0.053	0.053	NA	NA
BST09	0	7.94	7.91	22.4	0.9	0.018	7.4	30	5.4	0.032	0.032	NA	NA
BST10	0	7.89	7.64	22.2	0.7	0.013	7.2	30.8	4.8	0.018	0.018	NA	NA
BST11	0	7.82	7.28	22.0	1.2	0.019	7.3	30.9	4.7	0.020	0.020	NA	NA
BST12	0	7.65	5.56	22.9	1.2	0.013	7.3	31.1	6.2	0.031	0.031	NA	NA
DAC01	0	7.91	8.00	22.2	1.2	0.023	7.4	31.1	9.3	0.052	0.052	NA	NA
DAC02	0	7.52	8.48	23.5	1.7	0.013	7.3	31.4	8.8	0.043	0.043	NA	NA
DAC03	0	7.71	6.28	23.3	1.1	0.013	7.3	31.2	4.8	0.022	0.022	NA	NA
DAC04	0	7.82	7.63	21.9	1.6	0.025	7.4	29.9	8.3	0.052	0.052	NA	NA
DAC05	0	7.71	5.74	23.1	1.5	0.018	7.4	30.9	7.5	0.041	0.041	NA	NA
DAC06	0	7.71	7.91	22.4	0.6	0.007	7.3	31.7	3.8	0.019	0.019	NA	NA
DAC07	0	7.64	8.46	24.1	1.9	0.020	7.4	31.2	4.6	0.025	0.025	0.0323	0.0085
DAC08	0	7.56	8.52	23.3	2.6	0.023	7.4	30.7	10.6	0.064	0.064	NA	NA
DAC09	0	7.72	8.47	23.2	1.3	0.016	7.4	30.5	4.5	0.024	0.024	0.0070	0.0019
SWZ01	0	7.62	8.29	23.9	3.5	0.035	7.5	31.5	12.3	0.083	0.083	0.4454	0.0997
SWZ02	0	7.64	8.33	23.4	2.4	0.025	7.8	30	9.2	0.137	0.137	0.1210	0.0138
SWZ03	0	7.79	8.27	23.7	2.7	0.039	7.7	30	8.1	0.096	0.096	NA	NA
SWZ04	0	7.73	8.21	23.8	4.1	0.052	7.5	32	13.3	0.100	0.100	NA	NA
SWZ05	0	7.76	5.48	23.2	2.7	0.037	7.6	30	8.9	0.081	0.081	NA	NA
SWZ06	0	7.75	5.42	23.1	3.3	0.044	7.7	30	10.9	0.121	0.121	NA	NA
2229	0	7.69	8.36	23.0	2.6	0.030	7.4	30	10.9	0.070	0.070	NA	NA
2238	0	7.74	5.96	23.7	1	0.013	7.4	32.4	4.3	0.028	0.028	NA	NA
2243	0	7.69	8.31	23.2	2.6	0.030	7.5	31.1	7.9	0.054	0.054	NA	NA
2433	0	7.70	8.20	22.8	2.3	0.027	7.4	30.8	10.3	0.066	0.066	NA	NA
2435	0	7.64	8.46	21.6	3.5	0.036	7.8	30	16	0.234	0.234	0.0450	0.0052
2441	0	7.80	6.81	22.8	2.6	0.039	7.4	31.9	12.9	0.083	0.083	0.6557	0.1521
HOME	0	7.90	8.11	21.6	1	0.019	NA	NA	NA	NA	NA	NA	NA
BST01	10	7.83	7.44	24.3	0.1	0.002	7.3	24.6	3.7	0.018	0.018	NA	NA
BST02	10	8.04	7.55	23.5	1.3	0.033	7.3	24.1	5.5	0.023	0.023	NA	NA
BST03	10	7.96	7.37	24.4	0.8	0.017	7.4	24.8	6.3	0.039	0.039	NA	NA
BST04	10	8.07	7.57	25.0	0.4	0.011	7.4	25	4.6	0.028	0.028	NA	NA
BST05	10	7.93	7.34	25.0	1.1	0.022	7.3	26	5.9	0.026	0.026	NA	NA
BST06	10	7.95	7.47	23.9	1	0.021	7.3	24.8	4	0.017	0.017	NA	NA
BST07	10	8.15	7.46	24.4	7.8	0.256	7.4	24.9	30.6	0.197	0.197	NA	NA
BST08	10	7.97	7.4	24.7	1.4	0.031	7.4	25.3	6.3	0.039	0.039	NA	NA

10-day *Eohaustorius* survival toxicity test in sediment (definitive)—Water quality data—Marine Pollution Studies Laboratory

		Overlying					Interstitial						
Station	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	pH	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Total S2- (mg/L)	H2S (mg/L)
BST09	10	8.04	7.49	25.1	1.2	0.031	7.3	25.8	4.9	0.023	0.023	NA	NA
BST10	10	7.92	7.31	24.3	0.5	0.010	7.2	24.7	4.6	0.018	0.018	NA	NA
BST11	10	7.98	7.53	23.9	0.7	0.016	7.2	24.6	3.9	0.014	0.014	NA	NA
BST12	10	7.97	7.47	25.0	1.1	0.024	7.3	25.6	6.6	0.031	0.031	NA	NA
DAC01	10	8.13	7.37	24.9	11.7	0.368	7.4	25.3	31	0.182	0.182	NA	NA
DAC02	10	8.12	7.42	24.5	5	0.154	7.3	25.1	16.6	0.074	0.074	NA	NA
DAC03	10	7.95	7.48	24.4	0.6	0.013	7.2	24.8	3.1	0.012	0.012	NA	NA
DAC04	10	8.02	7.36	25.1	1.2	0.029	7.3	26	6.1	0.029	0.029	NA	NA
DAC05	10	8.06	7.49	23.4	6.1	0.164	7.3	23.6	15.9	0.078	0.078	NA	NA
DAC06	10	8	7.54	24.1	1.1	0.026	7.3	24.4	4.1	0.018	0.018	NA	NA
DAC07	10	8.1	7.5	25.2	5.9	0.173	7.3	25.7	25.3	0.121	0.121	NA	NA
DAC08	10	8.08	7.44	24.7	4.3	0.121	7.3	25	15.4	0.077	0.077	NA	NA
DAC09	10	7.93	7.23	24.3	1.9	0.038	7.3	24.8	7.5	0.034	0.034	NA	NA
SWZ01	10	8.56	6.98	23.9	4.4	0.353	6.9	24.3	7.1	0.012	0.012	NA	NA
SWZ02	10	8.61	6.95	24.1	2.7	0.241	6.8	24.7	5.8	0.010	0.010	NA	NA
SWZ03	10	8.25	7.09	25.0	1.2	0.049	7.4	24.7	6.8	0.037	0.037	0.0323	0.0085
SWZ04	10	8.29	7.12	24.3	6.2	0.278	7.4	25	13.4	0.072	0.072	NA	NA
SWZ05	10	8.57	7.01	24.5	2.7	0.221	7.1	25.3	7	0.019	0.019	NA	NA
SWZ06	10	8.11	6.92	25.1	5.7	0.171	7.4	25.4	11.2	0.066	0.066	NA	NA
2229	10	8.1	6.92	24.6	1.6	0.047	7.3	25.9	8.7	0.037	0.037	NA	NA
2238	10	8.02	7.22	24.6	0.6	0.015	7.4	25.3	3.4	0.019	0.019	0.0298	0.0075
2243	10	8.19	7.2	24.6	5.6	0.201	7.4	24.9	18.1	0.106	0.106	0.0171	0.0043
2433	10	8.1	7.27	23.3	1.4	0.041	7.4	23.8	6.1	0.037	0.037	0.0323	0.0079
2435	10	8.14	7.3	22.4	3	0.096	7.6	22	11.9	0.118	0.118	NA	NA
2441	10	8.15	7.24	23.2	7.4	0.243	7.4	23.2	14.9	0.089	0.089	NA	NA
HOME	10	7.97	7.27	23.3	0.2	0.004	NA	NA	NA	NA	NA	NA	NA

2-day *Mytilus galloprovincialis* larval development toxicity test at the sediment-water interface (definitive)—Water quality data—Marine Pollution Studies Laboratory

Station	Test	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
SWZ01	1	0	7.78	7.23	34.1	NA	NA	2	8.17	7.87	34.8	1.77	0.053
SWZ02	1	0	7.78	7.49	33.8	NA	NA	2	8.07	7.59	35.2	1.47	0.035
SWZ03	1	0	7.76	7.49	34.9	NA	NA	2	8.10	7.94	35.6	0.68	0.018
SWZ04	1	0	7.80	7.58	34.9	NA	NA	2	8.02	7.67	35.6	1.49	0.032
SWZ05	1	0	7.90	7.72	34.9	NA	NA	2	8.12	7.78	35.2	1.66	0.045
SWZ06	1	0	7.83	7.65	34.5	NA	NA	2	8.07	7.78	35.4	2.27	0.055
DAC01	1	0	7.90	7.84	34.0	NA	NA	2	8.03	7.95	35.6	0.39	0.009
DAC02	1	0	7.86	7.81	34.9	NA	NA	2	8.06	7.92	35.6	0.9	0.021
DAC06	1	0	7.74	7.59	35.0	NA	NA	2	8.06	7.97	35.2	0.04	0.001
DAC08	1	0	7.72	7.28	34.8	NA	NA	2	8.06	7.90	35.3	3.04	0.072
2229	1	0	7.87	7.71	34.8	NA	NA	2	7.72	6	35.2	0.57	0.006
HOME	1	0	7.92	7.84	34.7	NA	NA	2	8.07	8	35.1	ND	ND
DAC03	2	0	7.79	7.78	34.4	NA	NA	2	7.95	7.67	34.5	0.8	0.015
DAC04	2	0	7.76	7.05	34.7	NA	NA	2	7.93	7.36	34.6	3.5	0.062
DAC05	2	0	7.82	7.17	34.6	NA	NA	2	7.98	7.39	34.7	2	0.039
DAC07	2	0	7.93	7.38	34.5	NA	NA	2	8.03	7.81	34.8	1.1	0.024
DAC09	2	0	7.94	7.45	34.7	NA	NA	2	8.04	7.95	35.3	2.3	0.052
BST01	2	0	7.84	7.2	34.8	NA	NA	2	8.09	7.99	34.5	1.6	0.040
BST02	2	0	7.90	7.39	34.7	NA	NA	2	8.02	7.92	34.7	1.6	0.034
BST03	2	0	7.86	7.28	34.9	NA	NA	2	8.06	7.9	34.3	2.6	0.061
BST04	2	0	7.97	7.39	35.0	NA	NA	2	8	7.73	34.4	1.9	0.042
BST05	2	0	8.00	7.44	34.8	NA	NA	2	8.1	7.99	34.6	2.2	0.056
BST06	2	0	7.95	7.2	34.2	NA	NA	2	8	8.02	31.7	0.4	0.008
BST07	2	0	7.96	7.25	34.5	NA	NA	2	8	7.93	34.2	4.5	0.095
BST08	2	0	7.91	6.86	34.6	NA	NA	2	8	7.84	34.6	3.6	0.076
BST09	2	0	7.96	7.16	34.5	NA	NA	2	8.1	7.98	34.4	1.6	0.037
BST10	2	0	7.97	7.24	34.4	NA	NA	2	8.1	8	34.4	1.7	0.040
BST11	2	0	7.92	7.17	34.5	NA	NA	2	8	8.03	33	0.4	0.009

2-day *Mytilus galloprovincialis* larval development toxicity test at the sediment-water interface (definitive)—Water quality data—Marine Pollution Studies Laboratory

Station	Test	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
BST12	2	0	7.99	7.14	34.5	NA	NA	2	8	7.66	33.5	8.3	0.167
2238	2	0	7.95	7.22	34.3	NA	NA	2	8	7.89	34.6	0.6	0.014
2243	2	0	7.97	7.17	34.0	NA	NA	2	8.1	7.98	34	2.9	0.068
2433	2	0	7.89	6.65	34.4	NA	NA	2	8.1	7.9	33.2	4.1	0.097
2435	2	0	7.98	6.98	32.6	NA	NA	2	8	7.75	33.1	1.1	0.022
2441	2	0	7.86	6.77	34.2	NA	NA	2	8.1	7.84	34.3	8.6	**0.222**
HOME	2	0	7.86	7.31	34.5	NA	NA	2	8	7.91	33.9	0.5	0.011

***Strongylocentrotus purpuratus* fertilization toxicity test in porewater (definitive)—Water quality data—Marine Pollution Studies Laboratory**

Station	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)	Station	Day	pH	DO (mg/L)	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
BST01	0	7.35	6.02	34.4	3.5	0.016	DAC06	0	7.42	6.49	34.3	2.1	0.012
BST02	0	7.25	3.59	34.1	4.1	0.015	DAC07	0	7.37	6.99	34.4	3	0.015
BST03	0	7.45	4.33	34.1	4.2	0.025	DAC08	0	7.32	5.52	34.3	3.9	0.017
BST04	0	7.50	4.82	34.3	3.1	0.020	DAC09	0	7.34	6.12	34.4	3.4	0.016
BST05	0	7.30	5.20	34.0	4.3	0.018	SWZ01	0	7.62	5.4	34.1	9.3	0.081
BST06	0	7.46	5.80	34.1	2.5	0.015	SWZ02	0	7.60	5.74	34.2	7.8	0.065
BST07	0	7.35	4.37	34.4	3.8	0.018	SWZ03	0	7.52	5.27	34.1	5.4	0.037
BST08	0	7.34	3.21	34	4.8	0.022	SWZ04	0	7.63	4.94	34.3	9	0.080
BST09	0	7.41	4.96	34.3	4.1	0.022	SWZ05	0	7.66	6.21	33.9	6.7	0.064
BST10	0	7.43	6.34	33.8	2.9	0.016	SWZ06	0	7.61	1.41	34.1	7.9	0.067
BST11	0	7.37	5.36	34.2	3.1	0.015	2229	0	7.40	4.15	34.2	5.8	0.030
BST12	0	7.19	4.89	34.0	3.3	0.011	2238	0	7.42	5.45	35.3	2.8	0.015
DAC01	0	7.25	4.99	34.3	4.3	0.016	2243	0	7.43	4.31	34.7	5.1	0.029
DAC02	0	7.24	5.48	34.2	3.8	0.014	2433	0	7.32	4.25	34.3	6.2	0.027
DAC03	0	7.22	5.45	34.2	2.7	0.009	2435	0	7.44	1.51	34.2	9.3	0.054
DAC04	0	7.33	5.81	34.3	4.3	0.019	2441	0	7.47	4.83	34.2	7.4	0.046
DAC05	0	7.41	5.69	34.5	3.8	0.020	HOME	0	7.73	7.65	34.5	ND	ND

4-day *Eohaustorius estuarius* reference toxicant test with ammonia (definitive)—Test and water quality data—Marine Pollution Studies Laboratory

Nominal Ammonia Concentration (mg/L)	Beaker	Replicate	Initial # alive	Final # Alive	Final Proportion Alive	Mean Final Proportion Alive	SD Final Proportion Alive	Day	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
0	5	1	22	22	1.00	0.98	0.03	0	8.45	7.91	21.0	0.3	0.006
0	10	2	20	19	0.95								
0	15	3	20	20	1.00								
18	1	1	20	19	0.95	0.93	0.03	0	8.45	7.84	20.8	15.9	0.260
18	4	2	20	18	0.90								
18	11	3	20	19	0.95								
32	3	1	20	18	0.90	0.92	0.03	0	8.49	7.76	20.6	28.7	0.392
32	16	2	20	19	0.95								
32	17	3	20	18	0.90								
56	8	1	20	19	0.95	0.98	0.03	0	8.47	7.7	20.5	51.2	0.610
56	9	2	20	20	1.00								
56	12	3	20	20	1.00								
100	2	1	20	20	1.00	0.97	0.03	0	8.52	7.59	20.2	89.4	0.829
100	7	2	21	20	0.95								
100	14	3	20	19	0.95								
180	6	1	20	19	0.95	0.95	0.05	0	8.39	7.43	19.2	158	1.016
180	13	2	20	18	0.90								
180	18	3	20	20	1.00								

4-day *Eohaustorius estuarius* reference toxicant test with cadmium (definitive)—Test and water quality data—Marine Pollution Studies Laboratory

Nominal cadmium concentration (mg/L)	Beaker	Replicate	Initial # alive	Final # Alive	Final Proportion Alive	Mean Final Proportion Alive	SD Final Proportion Alive	Day	Dissolved oxygen (mg/L)	pH	Salinity (ppt)
0	5	1	5	5	1.00	1.00	0.00	0	7.98	7.02	20.4
0	9	2	5	5	1.00						
0	14	3	5	5	1.00						
1	4	1	5	4	0.80	0.93	0.12	0	7.98	7.92	20.4
1	7	2	5	5	1.00						
1	18	3	5	5	1.00						
1.8	10	1	5	5	1.00	0.73	0.31	0	7.96	7.94	20.3
1.8	13	2	5	2	0.40						
1.8	17	3	5	4	0.80						
3.2	2	1	5	5	1.00	0.94	0.10	0	8.02	7.96	20.0
3.2	3	2	5	5	1.00						
3.2	11	3	6	5	0.83						
5.6	1	1	5	5	1.00	0.87	0.23	0	8.01	7.96	19.6
5.6	6	2	5	5	1.00						
5.6	16	3	5	3	0.60						
10	8	1	4	2	0.50	0.43	0.06	0	8.01	7.97	18.6
10	12	2	5	2	0.40						
10	15	3	5	2	0.40						

2-day *Mytilus galloprovincialis* (mussel) reference toxicant test with ammonia (definitive)—Test and water quality data—Marine Pollution Studies Laboratory

Nominal Ammonia Concentration (mg/L)	Vial	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	Day	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
0	1	1	181	146	0.81	0.88	0.06	0	6.86	7.68	34.3	0.01	0.000
0	3	2	181	174	0.96								
0	11	3	181	164	0.91								
0	12	4	181	149	0.82								
0	21	5	181	160	0.88								
1.8	16	1	181	168	0.93	0.89	0.05	0	6.95	7.67	34.3	1.79	0.017
1.8	25	2	181	164	0.91								
1.8	26	3	181	172	0.95								
1.8	29	4	181	149	0.82								
1.8	30	5	181	156	0.86								
3.2	2	1	181	176	0.97	0.88	0.08	0	6.95	7.65	34.3	3.1	0.029
3.2	15	2	181	168	0.93								
3.2	22	3	181	161	0.89								
3.2	23	4	181	153	0.85								
3.2	24	5	181	140	0.77								
5.6	4	1	181	166	0.92	0.88	0.04	0	6.95	7.66	34.3	5.76	0.055
5.6	6	2	181	150	0.83								
5.6	9	3	181	150	0.83								
5.6	13	4	181	164	0.91								
5.6	14	5	181	164	0.91								
10	8	1	181	20	0.11	0.11	0.04	0	7.15	7.71	34.2	10.8	0.115
10	17	2	181	24	0.13								
10	18	3	181	30	0.17								
10	19	4	181	19	0.10								
10	27	5	181	11	0.06								
18	5	1	181	0	0.00	0.00	0.00	0	7.23	7.72	34.1	18.4	0.201
18	7	2	181	0	0.00								
18	10	3	181	0	0.00								
18	20	4	181	0	0.00								
18	28	5	181	0	0.00								

2-day *Mytilus galloprovincialis* (mussel) reference toxicant test with cadmium (definitive)—Test and water quality data—Marine Pollution Studies Laboratory

Nominal cadmium concentration (mg/L)	Vial	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	Day	Dissolved oxygen (mg/L)	pH	Salinity (ppt)
0	2	1	158	149	0.94	1.00	0.09	0	7.71	7.87	34.0
0	10	2	158	154	0.97						
0	11	3	158	181	1.15						
0	18	4	158	145	0.92						
0	23	5	158	160	1.01						
1	14	1	158	149	0.94	0.91	0.03	0	7.70	7.89	33.8
1	24	2	158	140	0.89						
1	27	3	158	144	0.91						
1	28	4	158	138	0.87						
1	30	5	158	146	0.92						
1.8	6	1	158	161	1.02	0.98	0.08	0	7.67	7.89	33.5
1.8	13	2	158	161	1.02						
1.8	16	3	158	132	0.84						
1.8	20	4	158	162	1.03						
1.8	22	5	158	160	1.01						
3.2	5	1	158	146	0.92	0.94	0.06	0	7.66	7.89	33.1
3.2	7	2	158	153	0.97						
3.2	9	3	158	136	0.86						
3.2	15	4	158	146	0.92						
3.2	26	5	158	162	1.03						
5.6	3	1	158	44	0.28	0.34	0.06	0	7.68	7.90	32.4
5.6	8	2	158	64	0.41						
5.6	12	3	158	45	0.28						
5.6	17	4	158	65	0.41						
5.6	29	5	158	52	0.33						
10	1	1	158	0	0.00	0.00	0.00	0	7.71	7.94	30.9
10	4	2	158	0	0.00						
10	19	3	158	0	0.00						
10	21	4	158	0	0.00						
10	25	5	158	0	0.00						

***Strongylocentrotus purpuratus* (urchin) reference toxicant test with ammonia (definitive)—Test and water quality data—Marine Pollution Studies Laboratory**

Nominal Ammonia Concentration (mg/L)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	Day	Dissolved oxygen (mg/L)	pH	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
0	1	1	82	18	0.82	0.81	0.06	0	7.65	7.73	34.5	0	0.000
0	3	2	70	30	0.70								
0	11	3	85	15	0.85								
0	12	4	84	16	0.84								
0	21	5	85	18	0.83								
18	16	1	78	22	0.78	0.79	0.05	0	7.89	7.71	34.3	16.8	0.179
18	25	2	74	29	0.72								
18	26	3	84	16	0.84								
18	29	4	85	15	0.85								
18	30	5	77	23	0.77								
32	2	1	66	34	0.66	0.67	0.07	0	7.84	7.69	34.1	33.3	0.340
32	15	2	66	36	0.65								
32	22	3	78	22	0.78								
32	23	4	64	43	0.60								
32	24	5	65	36	0.64								
56	4	1	64	47	0.58	0.49	0.07	0	7.80	7.65	33.7	55.2	0.514

***Strongylocentrotus purpuratus* (urchin) reference toxicant test with ammonia (definitive)—Test and water quality data—Marine Pollution Studies Laboratory**

Nominal Ammonia Concentration (mg/L)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	Day	Dissolved oxygen (mg/L)	pH	Salinity (ppt)	Total Ammonia (mg/L NH3)	Unionized Ammonia (mg/L NH3)
56	6	2											
56	9	3	53	57	0.48								
56	13	4	42	59	0.42								
56	14	5	50	50	0.50								
100	8	1	2	98	0.02	0.03	0.02	0	7.85	7.59	33.1	98	0.796
100	17	2	4	99	0.04								
100	18	3	5	95	0.05								
100	19	4	4	99	0.04								
100	27	5	0	100	0.00								
180	5	1	0	100	0.00	0.00	0.00	0	7.92	7.49	31.8	175.2	1.132
180	7	2	0	100	0.00								
180	10	3	0	100	0.00								
180	20	4	0	100	0.00								
180	28	5	0	100	0.00								

28-day bioaccumulation exposure with *Macoma* (definitive)—Survival data—AMEC Earth and Environmental

Station	Field Replicate	# Clams	% Survival	Mean % Survival
Control	A	27	77	**84**
	B	32	91	
	C	29	83	
SWZ01	A	32	91	**89**
	B	30	86	
	C	31	89	
SWZ02	NA	28	80	
SWZ04	NA	33	94	
BST01	NA	30	86	
BST04	A	31	89	**86**
	B	30	86	
	C	29	83	
BST05	NA	32	91	
BST06	NA	30	86	
BST07	NA	35	100	
DAC01	NA	32	91	
DAC03	NA	31	89	
DAC05	A	31	89	**90**
	B	34	97	
	C	30	86	
DAC07	NA	33	94	
DAC09	NA	33	94	
Site 2229	NA	29	83	
Site 2238	NA	27	77	
Site 2243	NA	31	89	
Site 2433	NA	31	89	
Site 2435	NA	34	97	
Site 2441	NA	31	89	

28-day bioaccumulation exposure with *Macoma* (definitive)—Dissolved oxygen (mg/L)—AMEC Earth and Environmental

Day	Control A	Control B	Control C	SWZ01 A	SWZ01 B	SWZ01 C	SWZ02	SWZ04	BST01	BST04 A	BST04 B	BST04 C	BST05	BST06

28-day bioaccumulation exposure with *Macoma* (definitive)—Dissolved oxygen (mg/L)—AMEC Earth and Environmental

0	9.3	8.7	9.0	8.3	8.7	8.6	8.6	8.7	8.8	9.1	8.7	9.3	8.4	8.6
1	2.7	3.2	3.2	4.2	5.7	5.6	4.2	6.5	6.1	3.8	1.7	3.2	4.4	3.2
2	4.8	8.4	5.9	4.6	4.9	6.1	4.0	6.2	6.4	6.3	6.3	4.8	5.9	7.3
3	1.7	6.2	4.3	3.2	3.4	4.4	4.1	4.6	3.4	4.5	4.7	3.7	4.7	6.3
4	6.6	6.3	6.8	6.6	6.4	6.1	6.5	6.5	6.1	6.4	6.6	5.8	6.6	6.8
5	7.5	7.5	7.3	7.2	7.0	7.2	7.3	7.2	7.5	7.0	7.4	7.3	7.7	7.8
6	9.4	9.1	9.1	9.1	9.1	9.1	9.1	9.2	9.5	8.7	9.4	9.1	9.6	9.7
7	8.8	8.6	8.7	8.7	8.5	8.7	8.6	8.6	9.2	8.0	8.8	8.9	9.4	9.3
8	7.4	7.2	8.2	7.5	7.1	7.2	7.3	7.0	7.6	7.0	7.6	7.1	7.8	7.7
9	7.7	8.1	8.3	7.3	7.5	7.1	7.3	7.0	7.5	7.4	7.5	7.2	7.7	7.7
10	7.9	7.9	8.0	7.5	7.5	7.3	7.4	7.2	7.8	7.6	7.9	7.4	7.7	7.8
11	5.5	8.4	7.8	7.4	8.1	7.0	7.9	7.6	8.2	7.4	8.2	7.2	8.5	8.3
12	7.9	7.8	7.4	7.3	7.9	7.2	7.4	7.2	7.6	6.4	7.8	7.1	8.0	7.8
13	7.5	7.4	7.3	7.1	7.0	7.0	7.0	6.6	7.2	6.9	7.0	6.9	7.5	7.2
14	8.4	8.4	8.5	8.1	8.2	7.9	8.0	7.7	8.5	7.8	8.1	8.0	8.6	8.6
15	7.8	7.7	7.9	7.1	7.9	8.0	7.5	7.1	7.7	8.0	8.0	7.8	7.8	8.2
16	8.4	8.2	8.2	8.2	8.2	8.1	8.0	7.5	7.9	8.2	8.1	8.1	8.1	8.4
17	7.9	8.0	7.9	7.6	7.9	7.8	7.7	7.1	7.3	8.0	7.9	8.0	7.4	8.0
18	7.9	7.5	7.9	7.4	7.4	7.2	7.3	6.4	7.5	7.2	7.2	7.3	7.1	7.4
19	7.7	7.5	7.8	7.4	7.6	7.4	7.2	7.4	7.7	7.3	7.5	7.1	7.9	7.4
20	7.8	7.5	7.8	7.4	7.2	7.3	7.3	7.5	7.7	7.3	7.1	7.3	7.9	7.8
21	7.9	7.7	8.1	7.5	8.2	8.1	7.1	7.2	7.7	7.1	7.1	7.4	7.9	7.7
22	8.1	8.4	8.6	8.0	7.8	8.0	7.8	8.1	8.2	7.5	8.1	8.1	8.2	8.2
23	8.5	8.2	8.4	7.9	8.1	7.8	8.1	7.6	8.1	7.9	8.3	8.3	7.9	8.1
24	8.2	8.0	8.2	7.6	7.8	7.6	7.7	7.5	7.8	7.4	7.6	7.9	7.2	7.7
25	8.3	8.4	8.0	7.9	7.9	8.2	8.0	7.8	8.2	7.8	7.8	8.0	8.4	7.9
26	7.6	7.4	7.5	7.1	6.7	7.4	7.5	7.1	7.2	7.5	7.1	7.4	7.6	7.5
27	8.0	8.1	8.2	7.8	7.6	8.3	7.8	7.7	7.9	7.9	7.6	7.9	8.4	8.0
28	8.3	8.2	8.4	8.1	8.2	8.5	8.1	7.9	8.0	8.1	7.8	7.9	8.5	8.3
Mean	7.4	7.7	7.7	7.3	7.4	7.5	7.3	7.3	7.6	7.3	7.4	7.3	7.7	7.7
SD	1.7	1.1	1.3	1.3	1.2	1.0	1.2	0.9	1.1	1.1	1.4	1.4	1.1	1.1

Day	BST07	DAC01	DAC03	DAC05 A	DAC05 B	DAC05 C	DAC07	DAC09	2229	2238	2243	2433	2435	2441
0	8.0	8.5	8.6	9.3	9.3	8.5	9.0	8.8	9.3	8.9	8.7	8.9	8.7	8.6
1	3.9	4.2	6.0	7.0	5.1	3.4	5.0	5.2	5.4	5.1	4.5	4.5	6.1	4.2
2	7.0	7.9	6.1	7.1	4.8	5.1	4.0	6.1	5.7	5.0	7.8	7.4	6.4	7.1
3	6.5	7.0	4.4	6.5	4.2	3.4	3.9	4.9	5.8	3.7	5.9	6.4	4.7	6.3
4	6.7	7.0	6.5	6.9	6.9	7.1	6.9	6.9	7.2	6.7	7.0	7.1	7.1	7.1
5	7.5	7.6	7.0	7.8	7.4	7.5	7.6	7.7	7.5	7.9	7.5	7.8	7.7	7.7
6	9.5	9.5	9.5	9.5	9.6	9.2	9.6	9.5	9.7	9.2	9.4	9.7	9.3	9.4
7	9.3	9.2	8.9	9.1	9.3	8.7	9.3	9.0	9.1	8.6	8.8	9.1	8.8	8.4
8	7.5	7.5	7.6	7.7	7.4	6.9	7.5	7.4	7.7	7.6	7.0	7.2	7.9	7.5
9	7.6	7.6	7.6	7.7	7.3	7.5	7.6	7.3	7.6	7.7	7.6	7.3	7.7	7.6
10	7.6	7.5	7.7	7.9	7.9	7.8	7.7	7.3	7.7	7.5	7.8	7.6	7.7	7.8
11	8.2	8.2	7.9	8.3	8.0	6.3	8.0	7.9	8.1	7.5	8.2	8.1	8.4	8.3
12	7.7	7.7	7.4	7.8	7.6	6.0	7.8	7.7	7.6	7.1	7.7	7.7	7.9	7.8
13	7.1	7.2	7.0	7.5	7.4	7.1	7.4	7.2	7.1	7.0	6.9	7.3	7.3	7.1
14	8.3	8.4	8.2	8.2	8.2	7.9	8.4	8.3	8.1	7.8	8.1	8.3	8.3	7.8
15	8.1	8.6	8.5	8.1	7.8	8.4	8.1	8.5	8.4	8.7	8.3	8.2	8.1	8.0
16	8.4	8.8	8.5	8.4	8.1	8.4	8.3	8.5	8.6	8.9	8.3	8.3	8.2	8.0
17	8.1	8.3	8.3	8.4	7.9	8.3	8.0	8.4	8.4	8.6	8.2	8.0	7.7	7.7
18	7.6	7.5	7.7	7.5	7.3	7.8	8.0	7.3	7.4	7.9	7.3	7.5	7.3	7.4
19	7.4	7.2	7.5	7.7	7.7	7.7	7.9	7.6	7.4	7.7	7.6	7.4	7.5	7.4
20	7.6	7.3	7.6	7.8	7.8	7.3	8.0	7.6	7.6	7.8	7.6	7.5	7.7	7.5
21	7.4	7.2	7.6	7.5	7.4	7.4	7.9	7.6	7.1	7.4	7.8	7.5	7.5	7.5
22	8.1	7.9	7.9	7.9	7.8	8.0	8.1	8.0	7.8	7.7	7.8	8.1	8.1	8.0

28-day bioaccumulation exposure with *Macoma* (definitive)—Dissolved oxygen (mg/L)—AMEC Earth and Environmental

23	8.0	7.6	8.1	8.2	8.0	8.2	8.2	8.2	8.2	7.9	8.1	7.8	8.2	7.8
24	7.7	8.1	7.7	7.8	6.6	7.9	8.0	7.7	7.6	7.9	7.8	7.5	7.9	7.6
25	8.5	8.7	8.2	8.2	7.6	8.6	8.4	7.8	8.0	8.4	8.2	8.1	8.2	8.2
26	7.5	8.1	7.8	7.7	7.1	7.4	7.4	7.6	7.7	7.1	7.8	7.4	7.7	7.5
27	7.9	8.2	8.1	8.3	7.6	7.9	7.8	8.0	7.9	8.2	8.1	8.1	8.3	7.9
28	8.0	8.3	8.3	8.3	8.0	8.0	7.9	8.1	8.3	8.3	8.4	8.3	8.4	7.9
Mean	7.7	7.8	7.7	7.9	7.5	7.4	7.6	7.7	7.7	7.6	7.7	7.7	7.8	7.6
SD	1.0	0.9	1.0	0.7	1.2	1.4	1.3	1.0	1.0	1.2	0.9	0.9	0.9	0.9

28-day bioaccumulation exposure with *Macoma* (definitive)—pH—AMEC Earth and Environmental

Day	Control A	Control B	Control C	SWZ01 A	SWZ01 B	SWZ01 C	SWZ02	SWZ04	BST01	BST04 A	BST04 B	BST04 C	BST05	BST06
0	7.89	7.88	7.91	7.87	7.91	7.88	7.90	7.94	7.97	7.98	7.96	7.99	8.00	8.00
1	7.43	7.52	7.52	7.63	7.74	7.69	7.66	7.78	7.80	7.66	7.57	7.68	7.72	7.63
2	7.50	7.89	7.71	7.61	7.62	7.72	7.56	7.72	7.75	7.76	7.80	7.70	7.72	7.87
3	7.37	7.84	7.69	7.59	7.63	7.70	7.70	7.71	7.64	7.71	7.78	7.72	7.72	7.91
4	8.21	7.98	8.04	8.03	7.98	7.92	7.87	7.88	7.77	7.84	7.90	7.76	7.80	7.90
5	8.11	8.03	8.01	8.02	8.08	8.08	8.00	7.99	7.99	7.93	7.98	7.98	8.02	8.03
6	7.88	7.85	7.88	7.98	8.09	8.06	7.95	7.96	7.97	7.91	7.97	7.95	7.98	8.00
7	7.80	7.81	7.89	7.99	8.10	8.09	7.99	7.98	7.99	7.87	7.94	7.96	7.98	7.99
8	8.05	7.99	8.15	8.13	8.21	8.10	8.03	8.02	7.99	7.87	7.96	7.91	7.98	7.95
9	8.07	8.09	8.12	8.15	8.19	8.06	8.08	8.02	7.98	7.91	7.94	7.90	7.94	7.93
10	7.89	7.87	7.92	8.03	8.19	8	8.03	8	7.95	7.93	7.96	7.91	7.93	7.94
11	7.99	7.98	7.93	8.08	8.19	7.99	8.09	8.04	8.04	7.95	8.01	7.95	8.06	8.03
12	7.76	7.74	7.72	7.92	7.98	7.92	7.91	7.88	7.88	7.75	7.83	7.77	7.89	7.85
13	8.17	8.12	8.10	8.22	8.26	8.23	8.25	8.17	8.17	8.10	8.12	8.10	8.21	8.15
14	8.03	8.01	8.03	8.12	8.12	8.09	8.11	8.02	8.05	7.98	8.00	7.99	8.12	8.09
15	7.93	7.86	7.95	8.00	8.05	8.03	7.98	7.92	7.92	7.93	8.01	7.98	8.01	7.98
16	7.97	7.91	7.98	8.02	8.07	8.07	8.03	8.01	7.96	7.98	7.97	7.97	7.97	8.01
17	7.98	7.91	7.95	8.09	8.04	8.04	7.98	8.00	7.89	7.96	7.98	7.96	7.92	7.98
18	7.96	7.90	8.01	8.02	8.02	8.00	7.97	7.96	7.96	7.91	7.92	7.92	7.90	7.92
19	7.95	7.91	7.99	8.04	8.01	7.97	7.97	8.03	7.98	7.92	7.94	7.90	8.03	7.92
20	8.03	7.96	8.05	8.06	8.03	8.00	8.00	8.07	8.02	7.93	7.89	7.93	8.04	7.99
21	7.96	7.96	8.03	8.06	8.07	8.03	8.01	8.1	8.06	8	7.98	8	8.09	8.04
22	7.93	7.93	7.99	7.97	7.97	7.96	8.00	8.03	7.95	7.85	7.96	7.97	7.97	7.98
23	8.04	7.97	8.04	8.03	8.11	8.03	8.07	8.08	8.04	7.98	8.07	8.06	8.01	8.03
24	8.23	8.15	8.18	8.14	8.16	8.10	8.10	8.12	8.08	8.00	8.09	8.08	8.01	8.05
25	8.04	8.02	8.00	8.01	8.10	8.09	8.18	8.20	8.11	7.94	7.97	8.00	8.12	8.08
26	7.97	7.91	7.93	7.94	7.91	7.95	7.97	8.01	7.94	8.01	7.94	8.00	7.99	7.98
27	7.98	7.93	7.99	7.96	8.04	8.05	7.98	8.05	7.97	7.94	7.91	7.97	8.02	7.97
28	7.97	7.92	7.97	7.94	8.04	8.01	7.98	8.04	7.96	7.94	7.88	7.96	8.00	7.94
Mean	7.9	7.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.9	7.9	7.9	8.0	8.0
SD	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Day	BST07	DAC01	DAC03	DAC05 A	DAC05 B	DAC05 C	DAC07	DAC09	2229	2238	2243	2433	2435	2441
0	7.95	7.97	7.98	7.99	8.00	7.97	7.99	7.99	8.00	7.99	7.99	8.00	8.00	7.96
1	7.66	7.61	7.73	7.88	7.71	7.55	7.70	7.72	7.70	7.72	7.69	7.70	7.80	7.64
2	7.83	7.89	7.67	7.84	7.60	7.62	7.54	7.72	7.66	7.63	7.87	7.86	7.79	7.83
3	7.90	7.91	7.64	7.89	7.68	7.38	7.54	7.68	7.74	7.63	7.83	7.89	7.77	7.89
4	7.83	7.84	7.74	7.91	7.86	7.92	7.93	7.93	7.98	7.93	7.90	7.91	7.90	7.94
5	7.99	7.99	7.82	8.08	7.98	7.98	8.00	7.99	7.98	8.05	7.97	7.99	8.02	8.00
6	7.97	7.94	7.94	7.98	7.97	7.94	7.97	7.97	8.02	7.96	7.98	8.01	7.97	7.97
7	7.96	7.96	7.94	7.96	7.99	7.97	8.02	7.98	7.98	7.99	7.96	7.98	7.96	7.93
8	7.99	7.98	7.93	7.96	7.91	7.85	7.95	7.93	7.96	7.96	7.86	7.89	7.95	7.96
9	7.92	7.89	7.88	7.92	7.87	7.93	7.93	7.89	7.91	7.95	7.91	7.84	7.97	7.97
10	7.92	7.9	7.89	7.93	7.93	7.96	7.96	7.91	7.95	7.97	7.95	7.91	7.95	7.97

28-day bioaccumulation exposure with *Macoma* (definitive)—pH—AMEC Earth and Environmental

11	8.02	8.00	7.97	8.01	8.00	7.92	8.05	8.04	8.05	7.96	8.02	7.99	8.03	8.05
12	7.85	7.84	7.78	7.82	7.84	7.70	7.85	7.86	7.85	7.79	7.84	7.84	7.87	7.89
13	8.14	8.14	8.05	8.15	8.13	8.16	8.19	8.16	8.17	8.13	8.12	8.14	8.16	8.17
14	8.00	8.02	7.99	7.99	7.98	7.98	8.04	8.01	8.02	8.00	7.99	8.01	8.01	8.04
15	7.96	8.09	8.00	7.96	7.95	8.02	7.98	8.02	8.00	8.05	7.98	8.00	7.97	8.03
16	8.01	8.06	7.99	7.97	7.98	8.06	8.02	8.05	8.05	8.09	8.01	8.03	8.01	8.06
17	7.97	8.02	7.98	7.98	7.97	8.00	7.98	8.00	8.00	8.03	7.96	7.99	7.96	7.99
18	7.93	7.94	7.98	7.93	7.92	7.99	8.01	7.92	7.98	8.00	7.89	7.97	7.92	8.00
19	7.94	7.89	8.03	8.00	7.99	7.99	8.00	8.01	7.99	8.00	7.94	7.96	7.97	8.00
20	7.97	7.93	7.96	7.96	7.99	7.94	8.04	8.00	8.00	8.02	7.96	7.96	8.00	8.02
21	8.03	7.99	8.01	8.01	8.01	7.99	8.07	8.05	8.01	8.03	8.06	8.04	8.04	8.06
22	7.96	7.93	7.96	7.96	7.92	7.96	7.96	7.93	7.94	7.94	7.90	7.95	7.95	7.96
23	8.00	7.95	8.06	8.07	8.01	8.07	8.06	8.08	8.06	8.05	8.03	7.99	8.08	8.01
24	8.02	8.07	8.05	8.09	7.96	8.08	8.09	8.05	8.08	8.06	8.09	8.01	8.09	8.07
25	8.09	8.10	8.00	7.99	7.95	8.07	8.06	7.98	8.04	8.04	8.09	8.00	8.07	8.06
26	7.96	8.05	7.98	7.99	7.94	7.98	7.97	7.96	8.02	7.92	8.00	7.96	8.01	7.99
27	7.95	8.02	7.99	8.00	7.94	8.00	7.98	7.95	8.08	8.07	8.05	8.04	8.06	7.98
28	7.93	8.01	7.98	8.02	7.94	8.00	7.95	7.96	8.00	7.97	7.99	7.99	7.99	7.95
Mean	8.0	8.0	7.9	8.0	7.9	7.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
SD	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

28-day bioaccumulation exposure with *Macoma* (definitive)—Salinity (ppt)—AMEC Earth and Environmental

Day	Control A	Control B	Control C	SWZ01 A	SWZ01 B	SWZ01 C	SWZ02	SWZ04	BST01	BST04 A	BST04 B	BST04 C	BST05	BST06
0	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
1	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.1	33.2	33.2
2	33.0	33.2	33.3	33.2	33.2	33.2	33.2	33.2	33.3	33.2	33.2	33.3	33.2	33.2
3	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
4	33.8	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.4	33.2	33.2	33.2	33.2	33.2
5	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
6	33.1	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
7	33.2	33.2	33.3	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
8	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.3
9	33.2	33.1	33.2	33.3	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
10	33.2	33.2	33.2	33.2	33.1	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.2	33.2
11	35.5	33.5	35.6	35.5	35.5	35.5	35.6	35.6	35.6	35.6	35.6	35.5	35.5	35.5
12	34.5	34.5	34.8	34.6	34.5	34.6	34.5	34.6	34.6	34.6	34.6	34.6	34.5	34.6
13	34.6	34.8	35.0	34.9	34.9	34.8	34.8	34.7	34.8	34.7	34.7	34.8	34.7	34.7
14	34.8	34.8	34.9	34.9	34.9	34.9	34.8	34.9	34.9	34.9	34.9	34.8	34.8	34.9
15	34.7	34.6	34.9	35.0	34.8	34.8	35.0	34.8	35.0	34.8	34.9	34.8	34.9	34.9
16	35.0	35.0	35.0	35.0	35.0	35.0	35.1	35.1	35.1	35.0	35.0	35.0	35.0	34.9
17	35.0	35.1	35.1	35.0	35.0	35.0	35.0	35.1	35.3	35.0	35.0	35.1	35.0	35.0
18	34.1	34.2	34.1	34.1	34.1	34.1	34.2	34.2	34.1	33.4	34.1	34.2	34.2	34.2
19	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6
20	33.1	33.2	33.2	33.2	33.2	33.1	33.1	33.2	33.2	33.1	33.1	33.2	33.2	33.2
21	34.2	34.2	34.2	34.2	34.1	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.1	34.2
22	34.1	34.0	34.2	34.3	34.2	34.2	34.2	34.1	34.2	34.3	34.1	34.2	34.2	34.1
23	34.0	34.1	34.1	34.2	34.2	34.3	34.2	34.2	34.2	34.2	34.0	34.2	34.3	34.1
24	34.1	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.1	34.2	34.2	34.2
25	34.1	34.2	34.2	34.2	34.2	34.2	34.1	34.2	34.2	34.2	34.2	34.2	34.2	34.2
26	33.4	33.4	33.5	33.5	33.6	33.4	33.4	33.5	33.6	33.5	33.5	33.4	33.5	33.4
27	33.4	33.3	33.4	33.5	33.4	33.4	33.5	33.5	33.5	33.5	33.5	33.5	33.4	33.5
28	34.0	34.0	34.1	34.1	34.1	33.9	34.1	34.1	34.2	34.2	34.2	34.1	34.0	34.1
Mean	33.9	33.8	33.9	33.9	33.9	33.9	33.9	33.9	34.0	33.9	33.9	33.9	33.9	33.9
SD	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7

28-day bioaccumulation exposure with *Macoma* (definitive)—Salinity (ppt)—AMEC Earth and Environmental

Day	BST07	DAC01	DAC03	DAC05 A	DAC05 B	DAC05 C	DAC07	DAC09	2229	2238	2243	2433	2435	2441
0	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
1	33.2	33.2	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.2	332.0	33.2	33.2	33.3
2	33.2	33.2	33.3	33.2	33.3	33.2	33.3	33.2	33.1	33.2	33.1	33.2	33.2	33.2
3	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
4	33.2	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.2
5	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.1	33.2	33.2	33.2	33.2	33.2	33.2
6	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.1	33.2	33.2	33.2	33.2	33.2	33.2
7	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
8	33.3	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.2	33.3	33.2	33.2	33.2	33.3
9	33.3	33.3	33.2	33.2	33.3	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.3
10	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
11	35.6	35.6	35.3	35.5	35.6	35.5	35.5	35.5	35.5	35.6	35.5	35.6	35.5	35.6
12	34.6	34.7	34.6	34.6	34.7	34.5	34.5	34.5	34.6	34.7	34.6	34.6	34.6	34.7
13	34.8	34.8	34.8	34.8	34.9	34.8	34.8	34.7	34.7	34.9	34.7	34.5	34.5	34.8
14	35.0	34.9	34.9	34.9	35.0	34.8	34.8	34.9	35.0	34.9	34.8	34.9	34.8	35.0
15	34.9	34.8	35.0	35.0	35.1	34.8	35.0	34.8	34.8	34.8	35.0	35.0	35.0	35.0
16	35.0	34.9	35.1	35.1	35.1	35.0	35.0	34.9	35.0	35.0	35.1	35.1	35.1	35.1
17	35.0	35.0	35.0	35.0	35.0	34.6	34.7	34.7	34.6	34.6	35.0	34.7	34.7	34.8
18	34.0	34.2	34.1	34.2	34.3	34.2	34.1	34.2	34.2	34.0	34.3	34.2	34.3	34.2
19	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6
20	33.2	33.2	33.1	33.2	33.1	33.2	33.2	33.2	33.1	33.1	33.1	33.2	33.2	33.2
21	34.2	34.3	34.1	34.2	34.2	34.2	34.2	34.2	34.3	34.1	34.2	34.2	34.3	34.2
22	34.2	34.3	34.2	34.1	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.1	34.2	34.2
23	34.2	34.3	34.1	34.1	34.2	34.2	34.1	34.2	34.2	34.3	34.2	34.2	34.1	34.3
24	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.1	34.2	34.2	34.2	34.2
25	34.2	34.2	34.1	34.2	34.2	34.2	34.2	34.3	34.2	34.0	34.2	34.1	34.2	34.2
26	33.5	33.4	33.5	33.4	33.5	33.6	33.4	33.4	33.5	33.6	33.4	33.6	33.4	33.6
27	33.5	33.4	33.5	33.5	33.5	33.5	33.5	33.4	33.4	33.4	33.5	33.5	33.4	33.5
28	34.2	34.0	34.1	34.1	34.1	34.1	34.1	34.0	34.0	34.0	34.1	34.1	34.0	34.3
Mean	33.9	33.9	33.9	33.9	34.0	33.9	33.9	33.9	33.9	33.9	44.2	33.9	33.9	34.0
SD	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.7	55.4	0.7	0.7	0.8

28-day bioaccumulation exposure with *Macoma* (definitive)—Temperature (°C)—AMEC Earth and Environmental

Day	Control A	Control B	Control C	SWZ01 A	SWZ01 B	SWZ01 C	SWZ0 2	SWZ0 4	BST01	BST04 A	BST04 B	BST04 C	BST05	BST06
0	15.2	15.5	15.4	15.6	15.0	15.9	15.6	15.4	15.5	15.2	15.6	15.2	17.0	16.7
1	17.1	16.5	16.2	16.0	15.6	15.7	16.0	15.5	15.4	16.8	17.1	16.4	16.0	16.3
2	14.8	11.7	13.9	14.8	14.6	15.0	14.8	14.5	14.6	14.2	13.3	14.6	14.7	12.9
3	17.0	14.7	16.0	16.9	16.7	17.0	16.8	16.4	16.5	16.1	15.9	16.5	17.1	16.2
4	18.8	18.5	18.0	17.7	17.4	19.7	18.1	18.1	19.0	17.8	17.2	18.6	18.3	16.7
5	15.3	14.7	16.2	15.7	15.7	15.6	15.1	15.0	14.9	16.0	15.1	15.3	13.9	14.2
6	15.9	15.5	16.7	16.3	16.0	15.9	15.5	15.4	15.3	16.5	15.4	15.5	14.2	14.5
7	16.0	15.8	17.0	16.5	16.1	16.0	15.5	15.4	15.4	16.6	15.5	15.5	14.2	14.6
8	16.3	16.5	13.6	16.3	16.1	16.2	15.6	15.5	15.4	16.7	15.1	15.7	14.2	14.7
9	15.4	13.4	13.1	15.9	15.2	16.0	15.5	15.5	15.2	15.5	15.0	15.6	14.2	14.6
10	15.4	14.5	14.6	16.2	15.9	16.1	15.3	15.5	15.1	15.4	15.1	15.6	14.2	14.6
11	15.5	14.8	17.3	16.4	14.7	15.9	15.4	15.6	15.2	15.1	14.9	15.4	14.2	14.6
12	15.5	14.9	17.4	16.3	13.6	15.9	15.4	15.8	15.3	15.1	15.0	15.5	14.3	14.7
13	17.3	16.5	18.2	17.7	18.2	17.8	16.9	17.2	17.0	17.4	17.3	17.4	16.1	16.2
14	16.0	14.6	15.6	15.9	15.4	15.9	15.3	15.3	15.1	16.1	15.8	15.4	14.4	14.3
15	17.6	16.2	16.4	18.2	15.9	15.8	17.2	16.2	16.4	15.7	15.8	15.8	16.1	15.1
16	15.5	16.1	16.5	16.0	15.5	15.5	15.8	16.4	16.5	15.6	15.7	15.6	16.3	15.0
17	15.4	15.9	16.1	15.7	15.5	15.5	15.7	16.4	17.4	15.4	15.6	15.5	16.1	15.0
18	16.5	16.8	16.4	17.0	16.6	16.6	16.8	17.7	16.2	16.7	16.7	16.6	17.3	16.1

28-day bioaccumulation exposure with *Macoma* (definitive)—Temperature (°C)—AMEC Earth and Environmental

19	16.1	16.3	15.9	16.5	16.2	16.3	16.2	15.1	15.6	16.2	16.1	16.1	13.5	15.1
20	16.3	16.2	16.1	16.6	17.3	16.6	16.3	15.5	15.7	16.3	16.1	16.3	14.7	15.3
21	16.4	16.0	16.3	16.6	15.5	16.8	16.7	15.8	16.0	16.8	16.7	16.7	14.8	15.8
22	14.1	15.1	14.3	14.1	14.3	14.4	14.1	14.7	14.3	14.8	14.3	14.3	14.2	15.1
23	14.6	15.3	14.6	15.4	14.7	16.0	14.8	15.4	15.2	15.2	14.0	14.6	16.0	14.9
24	15.3	15.4	15.0	15.9	15.4	15.8	15.2	15.2	15.4	15.9	14.8	15.3	16.3	15.3
25	15.0	13.9	14.6	15.0	15.1	14.5	14.5	14.6	14.8	15.4	14.5	14.9	13.9	13.6
26	16.8	15.6	16.7	17.2	18.9	17.0	15.8	15.7	17.2	15.9	15.9	15.7	16.1	15.4
27	15.6	15.0	15.1	16.0	15.4	14.1	15.2	15.1	15.4	15.2	15.4	15.2	14.2	14.6
28	15.8	15.2	15.2	16.1	15.9	14.4	15.6	15.4	15.7	15.6	15.9	15.3	14.2	14.8
Mean	15.9	15.4	15.8	16.2	15.8	16.0	15.7	15.7	15.7	15.9	15.5	15.7	15.2	15.1
SD	1.0	1.2	1.3	0.9	1.1	1.1	0.9	0.8	1.0	0.8	0.9	0.9	1.3	0.9

Day	BST07	DAC01	DAC03	DAC05 A	DAC05 B	DAC05 C	DAC07	DAC09	2229	2238	2243	2433	2435	2441
0	16.8	16.5	16.1	14.8	15.1	16.8	15.8	16.0	15.1	15.7	15.8	15.6	14.7	15.8
1	16.0	16.2	15.2	14.0	15.6	17.4	16.2	15.8	16.4	16.9	16.4	15.8	15.0	16.9
2	13.2	12.4	14.4	13.4	15.2	15.1	15.8	15.2	16.2	17.0	13.7	13.0	13.9	14.2
3	16.1	16.2	16.4	16.0	16.9	17.1	17.3	16.9	17.2	18.5	16.4	15.7	16.1	16.9
4	17.9	17.4	17.2	16.3	17.2	17.8	17.5	17.7	17.5	19.2	17.2	17.0	17.0	17.6
5	14.5	14.6	15.3	13.8	15.4	15.2	14.8	14.8	15.3	14.8	15.4	15.3	14.3	15.1
6	15.0	15.7	15.4	14.9	15.4	17.4	15.8	15.9	15.7	17.3	16.2	15.6	15.6	16.0
7	15.1	15.9	15.8	15.5	15.7	17.6	15.9	16.5	16.1	18.2	16.4	15.9	16.6	16.6
8	15.1	16.0	15.8	15.0	15.7	18.2	16.2	16.7	16.0	16.6	16.5	15.8	15.4	16.3
9	14.9	15.7	15.6	15.0	15.6	16.7	15.8	16.6	16.2	15.7	15.6	15.6	15.2	15.6
10	15.9	16.0	15.7	15.0	15.7	16.6	15.6	16.6	16.0	16.0	15.4	15.6	15.1	15.6
11	14.9	15.7	15.4	14.7	15.5	15.9	15.3	15.2	15.8	17.7	15.4	15.5	14.9	15.8
12	15.0	15.7	15.5	14.8	15.6	16.0	15.5	15.6	16.1	17.9	15.5	15.6	15.0	15.7
13	16.3	16.9	16.7	16.1	16.8	17.7	16.9	17.3	17.5	18.4	17.1	16.9	16.7	17.4
14	15.4	15.4	15.0	15.1	16.1	16.9	15.5	16.1	16.5	17.4	16.1	16.1	15.8	16.8
15	14.8	14.2	14.6	15.0	16.4	15.4	16.1	14.8	14.5	14.1	15.6	15.7	16.0	16.2
16	14.9	13.7	14.7	15.0	16.3	15.5	16.3	14.8	14.6	14.0	15.5	16.0	16.2	16.6
17	14.8	13.7	14.7	14.8	15.9	15.3	16.3	14.7	14.5	14.0	15.9	16.1	16.1	16.5
18	16.1	17.0	15.9	16.1	17.5	16.7	15.4	18.1	16.7	16.1	17.5	17.7	18.0	17.2
19	15.5	16.5	15.1	15.3	15.5	16.2	14.9	16.4	16.5	15.5	15.0	15.3	15.8	15.9
20	15.7	16.4	15.3	15.3	15.5	16.3	15.4	16.3	16.7	16.0	15.4	15.4	15.9	16.3
21	16.1	16.9	15.9	15.9	15.9	16.9	15.6	16.8	17.3	16.1	15.4	15.8	16.1	16.2
22	14.0	14.5	14.1	14.7	14.6	14.4	14.2	14.5	14.4	15.0	14.2	14.3	14.1	14.3
23	15.4	16.6	14.5	13.9	14.4	15.6	15.3	15.3	15.3	16.6	14.9	15.6	14.7	15.9
24	15.4	14.7	14.9	14.8	14.7	15.6	15.2	16.0	15.5	15.3	15.3	15.7	15.4	16.5
25	13.2	12.6	13.8	14.0	14.2	14.0	14.2	15.4	14.8	14.0	14.5	14.1	14.5	14.5
26	15.7	14.5	14.8	14.7	15.0	17.7	16.8	16.0	15.8	17.3	15.7	17.3	15.4	16.9
27	15.1	14.1	14.4	14.2	14.4	16.1	16.0	15.8	15.4	14.4	15.0	15.1	14.2	16.0
28	15.3	14.1	14.6	14.3	14.8	16.4	16.5	16.0	15.7	14.8	15.3	15.3	14.8	16.3
Mean	15.3	15.4	15.3	14.9	15.6	16.4	15.8	16.0	15.9	16.2	15.7	15.7	15.5	16.1
SD	1.0	1.3	0.8	0.7	0.8	1.1	0.8	0.9	0.9	1.5	0.8	0.9	0.9	0.8

28-day bioaccumulation exposure with *Macoma* (definitive)—Total ammonia (mg/L)—AMEC Earth and Environmental

Day	Control A	Control B	Control C	SWZ01 A	SWZ01 B	SWZ01 C	SWZ02	SWZ04	BST01	BST04 A	BST04 B	BST04 C	BST05	BST06
0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12
21	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.4
28	0.9	0.9	0.9	0.7	1.1	0.6	0.5	0.9	0.7	0.5	0.9	1.1	0.7	0.9

Day	BST07	DAC01	DAC03	DAC05 A	DAC05 B	DAC05 C	DAC07	DAC09	2229	2238	2243	2433	2435	2441

28-day bioaccumulation exposure with *Macoma* (definitive)—Total ammonia (mg/L)—AMEC Earth and Environmental

0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
14	0.61	<0.1	0.4	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	<0.1
21	1.0	0.7	0.7	0.7	1.1	1.2	0.7	0.5	1.0	0.5	0.6	0.9	1.0	0.5
28	1.2	0.7	0.7	0.5	0.6	1.4	0.9	0.7	1.3	1.1	0.7	0.7	0.6	1.0

Appendix F. Sediment chemistry, grain size, and total organic carbon data for definitive sampling.

Sediment chemistry data (definitive)—Metals results summary (all results in mg/kg dry)—CRG Marine Laboratories, Inc.

Analyte	MDL	SWZ01	SWZ01 (R2)	SWZ02	SWZ03	SWZ04	SWZ05	SWZ06
Aluminum	1	32000	33300	23700	off scale	40600	29900	32400
Antimony	0.05	0.54	0.63	0.5	0.35	0.77	0.66	53.7
Arsenic	0.05	6.95	7.22	5.14	6.17	8.73	6.13	6.77
Barium	0.05	99.6	106	83.1	83.7	107	93.7	85.4
Beryllium	0.01	0.23	0.27	0.16	0.31	0.24	0.19	0.21
Cadmium	0.01	0.57	0.32	0.5	0.56	1.07	0.54	0.46
Chromium	0.05	49.5	50.4	35.2	49.5	61.7	43.7	47.7
Cobalt	0.01	5.88	5.87	4.54	5.77	6.17	4.98	5.31
Copper	0.01	121	115	86.7	106	144	102	103
Iron	1	32100	31700	24200	30500	38000	30300	32200
Lead	0.01	89.2	89.7	79.7	92	94.6	79.2	78.7
Manganese	0.05	219	216	175	222	271	220	209
Mercury	0.005	0.54	0.5	0.4	0.63	0.72	0.46	0.45
Molybdenum	0.05	2.43	2.47	2.19	1.35	2.36	2.45	1.66
Nickel	0.01	15.7	15	11.7	13.1	16.7	14.3	12.9
Selenium	0.05	0.46	0.41	35	0.33	0.53	0.39	0.35
Silver	0.01	0.1	0.13	0.14	0.15	0.41	0.32	0.28
Strontium	0.05	57.6	50.4	40.4	48	60.6	48.4	49.1
Thallium	0.01	0.25	0.23	0.17	0.22	0.29	0.22	0.24
Tin	0.05	7.17	6.56	5.04	6.37	8.42	6.37	6.19
Titanium	0.05	1670	1640	1260	1450	2000	1610	1550
Vanadium	0.05	69.5	67	52.1	64.1	79.6	63.2	63.7
Zinc	0.05	313	332	290	228	346	295	257

Analyte	MDL	DAC01	DAC02	DAC03	DAC04	DAC04 (R2)	DAC05	DAC06	DAC07	DAC08	DAC09
Aluminum	1	53200	off scale	45700	28730	27900	25400	off scale	off scale	off scale	off scale
Antimony	0.05	0.41	0.38	0.38	0.29	0.25	0.23	0.24	0.14	0.19	0.21
Arsenic	0.05	12.2	11.9	10.6	6.17	6.17	5.92	9.42	7.28	5.85	7.15
Barium	0.05	121	130	111	70.8	78.2	67.4	108	93.1	75.5	89.4
Beryllium	0.01	0.38	0.45	0.35	0.12	0.2	0.18	0.3	0.34	0.21	0.25
Cadmium	0.01	0.47	0.55	0.57	0.36	0.33	0.49	0.32	0.32	0.31	0.31
Chromium	0.05	116	119	142	57.8	56.9	58.9	88	73.7	52.7	69.9
Cobalt	0.01	7.9	8.17	8.53	4.18	4.48	3.93	6.39	5.64	4.45	5.25
Copper	0.01	181	177	146	84.5	92.7	84.6	117	97.2	74.7	93.3
Iron	1	50600	49300	43100	27100	26900	24600	40800	33800	27800	34400
Lead	0.01	93.5	93.1	94.3	61.4	63.5	57.3	65.9	66.6	56.9	58
Manganese	0.05	333	329	301	211	209	193	299	248	217	251
Mercury	0.005	1.02	1.24	1.12	0.53	0.49	0.46	0.88	0.73	0.53	0.69
Molybdenum	0.05	1.3	1.22	1.62	1.06	0.97	1.01	0.93	0.76	0.91	0.86
Nickel	0.01	23.2	23.7	36.8	15	14.3	13	17.6	14.7	11.9	14
Selenium	0.05	0.58	0.53	0.52	0.25	0.37	0.31	0.49	0.33	0.31	0.38
Silver	0.01	0.57	1.83	1.54	0.95	0.61	0.52	0.71	0.46	0.51	0.56
Strontium	0.05	61.9	59.7	53	39.9	37.9	36.8	50.7	45.1	41.2	44.2
Thallium	0.01	0.38	0.42	0.36	0.24	0.25	0.21	0.3	0.3	0.24	0.29
Tin	0.05	11.5	11.8	9.82	5.16	5.03	5.39	7.51	6.35	4.74	6.05
Titanium	0.05	2560	2330	2230	1649	1590	1370	2230	2070	1830	2210
Vanadium	0.05	96.3	93.8	79.9	54.2	52.5	47.4	75.4	63.5	54.6	64.4
Zinc	0.05	297	302	269	191	199	192	222	188	167	188

Analyte	MDL	2229	2238	2243	2433	2435	2441
Aluminum	1	17500	46900	21200	24200	15100	41200
Antimony	0.05	0.08	0.18	0.05	0.07	ND	0.24
Arsenic	0.05	4.5	6.91	4.11	4.54	2.67	7.63
Barium	0.05	46.8	92.7	0.41	76.3	46.4	144

Sediment chemistry data (definitive)—Metals results summary (all results in mg/kg dry)—CRG Marine Laboratories, Inc.

Beryllium	0.01	0.05	0.35	0.08	0.17	ND	0.26	
Cadmium	0.01	0.11	0.23	0.09	0.21	0.09	0.31	
Chromium	0.05	22.7	48	26.5	30.4	16.4	48.7	
Cobalt	0.01	2.61	7.27	2.62	3.78	1.98	5.56	
Copper	0.01	42	74	50.7	46.5	19.8	80.9	
Iron	1	18500	42900	18700	24200	15000	42100	
Lead	0.01	23.9	22.9	19.2	17.1	7.93	22	
Manganese	0.05	162	317	156	209	141	362	
Mercury	0.005	0.32	0.35	0.28	0.26	0.16	0.31	
Molybdenum	0.05	0.33	0.43	0.32	0.43	0.36	1.39	
Nickel	0.01	5.9	14.6	6.18	8.5	4.96	15.9	
Selenium	0.05	0.3	0.43	0.24	0.3	0.18	0.85	
Silver	0.01	0.42	0.49	0.35	0.23	0.25	0.35	
Strontium	0.05	110	52.2	29.1	47.6	39.4	181	
Thallium	0.01	0.13	0.3	0.17	0.23	0.14	0.34	
Tin	0.05	2.79	4	2.68	2.6	1.1	4.13	
Titanium	0.05	1030	2030	1090	1620	1040	2130	
Vanadium	0.05	37.5	77.7	33.1	45.8	30.1	82.3	
Zinc	0.05	103	222	112	111	49.3	149	
Analyte	**MDL**	**BST01**	**BST02**	**BST03**	**BST04**	**BST05**	**BST05 (R2)**	**BST06**
Aluminum	1	47300	off scale	off scale	off scale	off scale	37500	34700
Antimony	0.05	0.47	0.29	0.14	0.61	0.15	0.18	0.39
Arsenic	0.05	9.86	9.67	7.1	9.85	7.34	7.3	6.93
Barium	0.05	131	118	104	131	102	99.8	93.5
Beryllium	0.01	0.36	0.28	0.28	0.33	0.24	0.23	0.19
Cadmium	0.01	0.7	0.24	0.18	1.05	0.17	0.18	0.22
Chromium	0.05	82.6	65.1	51.5	86.6	49.7	50.3	47
Cobalt	0.01	7.33	6.7	5.94	7.49	5.56	5.43	4.98
Copper	0.01	174	129	92	211	90.7	91.5	86.2
Iron	1	47800	45300	37100	45100	35800	35900	33100
Lead	0.01	71.8	48.2	35.6	80.7	35.5	36.1	34.2
Manganese	0.05	328	329	273	302	268	271	256
Mercury	0.005	0.86	0.77	0.56	5.17	1.01	0.82	0.75
Molybdenum	0.05	1.33	1	0.65	1.73	0.73	0.67	0.92
Nickel	0.01	19.8	16.3	13	20.6	12.5	12.5	11.7
Selenium	0.05	0.61	0.56	0.41	0.66	0.44	0.41	0.41
Silver	0.01	0.43	0.53	0.36	0.57	0.49	0.51	0.49
Strontium	0.05	60.6	61.2	52.8	69.8	0.47	47.3	46.9
Thallium	0.01	0.38	0.35	0.31	0.39	0.29	0.28	0.26
Tin	0.05	11.5	7.41	5.73	16	5.63	5.72	5.44
Titanium	0.05	2140	2210	2040	1920	1670	1710	171
Vanadium	0.05	86.3	80.6	67.2	82.6	63.3	64.1	60.1
Zinc	0.05	287	220	167	270	165	167	158
Analyte	**MDL**	**BST07**	**BST08**	**BST09**	**BST10**	**BST10 (R2)**	**BST11**	**BST12**
Aluminum	1	off scale	45200	off scale	off scale	34100	off scale	46200
Antimony	0.05	0.39	0.32	0.21	0.12	0.2	0.08	0.25
Arsenic	0.05	12.3	9.19	6.61	6.49	6.44	6.38	8.54
Barium	0.05	143	117	86.3	94.6	95.4	95.3	116
Beryllium	0.01	0.4	0.27	0.21	0.23	0.17	0.24	0.27
Cadmium	0.01	0.43	0.38	0.22	0.18	0.17	0.16	0.19
Chromium	0.05	89.2	60.8	42.6	44.4	44.6	44.1	59.6
Cobalt	0.01	8.25	6.28	4.82	5.2	4.97	5.56	6.33
Copper	0.01	183	116	80.9	73.7	73.1	73.4	106
Iron	1	54200	42300	30200	32700	33100	33500	43700
Lead	0.01	71.5	45.2	31	30.7	31.9	29.8	41.2
Manganese	0.05	364	311	238	256	262	264	325

Sediment chemistry data (definitive)—Metals results summary (all results in mg/kg dry)—CRG Marine Laboratories, Inc.

Mercury	0.005	1.02	0.75	0.5	0.57	0.69	0.53	0.83
Molybdenum	0.05	1.17	0.85	1.49	0.6	0.68	0.55	0.8
Nickel	0.01	19.6	14.9	10.4	11	11.2	11.2	15.1
Selenium	0.05	0.65	0.57	0.34	0.35	0.43	0.3	0.57
Silver	0.01	0.6	0.59	0.37	0.4	0.46	0.31	0.62
Strontium	0.05	67.4	57.4	59.2	43.6	42.5	44	57.5
Thallium	0.01	0.43	0.33	0.22	0.27	0.27	0.27	0.33
Tin	0.05	11.7	7.42	4.96	4.65	4.73	4.81	6.89
Titanium	0.05	2230	1990	1430	1960	1750	1910	2100
Vanadium	0.05	95.1	76.1	52.7	57.8	58.2	59.9	77.5
Zinc	0.05	297	252	166	146	148	142	194

Sediment chemistry data (definitive)—Pesticides results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	**MDL**	**SWZ01**	**SWZ02**	**SWZ03**	**SWZ04**	**SWZ05**	**SWZ06**
2,4'-DDD	1	2.8	3.4	ND	ND	ND	ND
2,4'-DDE	1	3.1	2	8.8	ND	ND	8.2
2,4'-DDT	1	3.8	4.4	6.2	4.4	ND	4.8
4,4'-DDD	1	4.8	6.9	11.3	7.6	5.4	1.8
4,4'-DDE	1	20.4	15.6	16	20.5	7.2	10.5
4,4'-DDT	1	3.4	10.7	ND	ND	ND	3.5
Aldrin	1	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	3.4	ND	ND	ND	3.2	4.1
Chlordane-gamma	1	3	ND	ND	ND	10.4	8.3
Dieldrin	1	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND

Analyte	**MDL**	**DAC01**	**DAC02**	**DAC03**	**DAC04**	**DAC05**	**DAC06**	**DAC06 (R2)**	**DAC07**	**DAC08**	**DAC09**
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	3.2	ND	2.4	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1	1.2	2.6	ND	1.5	1.9	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	2.5	3.7	7.5	ND	ND	ND	ND	ND
4,4'-DDE	1	10.6	20.3	16.8	18.1	8.9	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	3.7	ND	6.6	2.6	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sediment chemistry data (definitive)—Pesticides results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte	**MDL**	**2229**	**2229 (R2)**	**2238**	**2243**	**2433**	**2435**	**2441**
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND

Analyte	**MDL**	**BST01**	**BST02**	**BST03**	**BST04**	**BST05**	**BST06**	**BST07**
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND

Sediment chemistry data (definitive)—Pesticides results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	BST08	BST09	BST10	BST11	BST12	BST12 (R2)
2,4'-DDD	1	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	ND	ND	ND	ND	ND	ND
2,4'-DDT	1	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND

Sediment chemistry data (definitive)—PCB congeners results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	SWZ01	SWZ02	SWZ03	SWZ04	SWZ05	SWZ06
PCB018	1	ND	ND	ND	ND	ND	ND
PCB028	1	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND
PCB037	1	6.1	ND	ND	5.4	10.1	ND
PCB044	1	ND	2.5	28.3	2.9	8.2	5.5
PCB049	1	3.9	6.1	30.6	6.2	15.2	11.6
PCB052	1	4.9	6	43	19.7	11.3	14.2
PCB066	1	2.4	3	33.4	7.9	4.9	6.5
PCB070	1	4.4	4.9	35.4	8.7	2.4	6.4
PCB074	1	5.5	5.9	21.4	9.7	9.6	10.8
PCB077	1	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	14.6	ND	ND	ND
PCB095	1	1.5	1.5	31.4	6.3	3.9	4
PCB097	1	ND	ND	22.4	ND	ND	ND
PCB099	1	ND	ND	22.6	5.3	1.2	5.7
PCB101	1	6.1	8.3	47.3	15	6.5	12.3
PCB105	1	ND	7	32.7	7.3	1.5	7.3
PCB110	1	8.3	10.6	55.6	17.5	7	12.2
PCB114	1	ND	ND	ND	ND	ND	ND
PCB118	1	10.7	8.8	50.8	25.4	8.1	14
PCB119	1	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND
PCB138	1	ND	8.5	49.3	14.1	8.1	16.3
PCB141	1	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	22.8	7.8	ND	6.4

Sediment chemistry data (definitive)—PCB congeners results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB151	1	ND	ND	ND	ND	ND	ND				
PCB153	1	ND	7	26.7	8.8	ND	9.1				
PCB156	1	ND	ND	ND	ND	ND	ND				
PCB157	1	ND	ND	ND	ND	ND	ND				
PCB158	1	ND	ND	ND	ND	ND	ND				
PCB168+132	1	ND	ND	11	ND	ND	ND				
PCB169	1	ND	ND	ND	ND	ND	ND				
PCB170	1	ND	ND	ND	ND	ND	ND				
PCB177	1	ND	ND	ND	ND	ND	ND				
PCB180	1	ND	ND	ND	ND	ND	ND				
PCB183	1	ND	ND	ND	ND	ND	ND				
PCB187	1	ND	ND	ND	ND	ND	ND				
PCB189	1	ND	ND	ND	ND	ND	ND				
PCB194	1	ND	ND	ND	ND	ND	ND				
PCB200	1	ND	ND	ND	ND	ND	ND				
PCB201	1	ND	ND	ND	ND	ND	ND				
PCB206	1	ND	ND	ND	ND	ND	ND				
Total Detectable PCBs		53.8	80.1	579.3	168	98	142.3				
Analyte	**MDL**	**DAC01**	**DAC02**	**DAC03**	**DAC04**	**DAC05**	**DAC06**	**DAC06 (R2)**	**DAC07**	**DAC08**	**DAC09**
PCB018	1	ND	8.7	34.3	11.7	5.6	ND	ND	ND	ND	ND
PCB028	1	ND	7.4	16.7	6	4	ND	ND	ND	ND	ND
PCB031	1	ND	7.8	23.1	7.3	5	ND	ND	ND	ND	ND
PCB033	1	ND	5.6	9.8	3.8	2	ND	ND	ND	ND	ND
PCB037	1	ND	2.8	8.9	2.5	5	ND	ND	1.3	ND	ND
PCB044	1	10.2	16.5	33.9	13.9	11.2	ND	ND	1.6	ND	ND
PCB049	1	11.2	20	52.7	17.9	16.8	ND	ND	ND	ND	ND
PCB052	1	16.7	23.6	65.4	21.8	22.8	ND	ND	5.5	ND	ND
PCB066	1	20	40.3	81.8	26.9	26.6	6.1	7	9.8	6.7	ND
PCB070	1	7.6	21	65	19.3	23.2	4.9	2.1	8.6	4.8	ND
PCB074	1	22.9	11.5	28.9	9.1	10.7	ND	ND	3.7	ND	ND
PCB077	1	ND	ND	6.8	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	7.7	12	4.6	ND	ND	ND	ND	ND	ND
PCB095	1	6	10.3	25.5	10.2	11.2	ND	ND	ND	ND	ND
PCB097	1	ND	9.2	20.1	4.6	5.5	ND	ND	ND	ND	ND
PCB099	1	4.5	13.6	23.1	7.6	12.1	ND	ND	ND	ND	ND
PCB101	1	11.8	25	44.5	21.5	25.8	10.4	7.9	11.3	ND	ND
PCB105	1	8.1	22.2	22.7	12.3	10.8	ND	ND	7.4	ND	ND
PCB110	1	15.9	25.6	45.7	25.1	24.1	5.8	7.5	15.6	ND	6.7
PCB114	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB118	1	21.7	38.8	46.7	21.6	26.8	10.2	11.6	16.8	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	6.3	ND	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB138	1	21	30	42	13.3	31.3	ND	ND	10.3	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	11.7	19.2	2.8	4.2	ND	ND	6.3	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB153	1	15.3	21.8	31.7	17.5	21.3	ND	ND	15.8	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sediment chemistry data (definitive)—PCB congeners results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB183	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB194	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		192.9	381.1	766.8	281.3	306	37.4	36.1	114	11.5	6.7
Analyte	**MDL**	**2229**	**2229 (R2)**	**2238**	**2243**	**2433**	**2435**	**2441**			
PCB018	1	ND	ND	ND	ND	ND	ND	ND			
PCB028	1	ND	ND	ND	ND	ND	ND	ND			
PCB031	1	ND	ND	ND	ND	ND	ND	ND			
PCB033	1	ND	ND	ND	ND	ND	ND	ND			
PCB037	1	ND	ND	ND	ND	ND	ND	ND			
PCB044	1	ND	ND	ND	ND	ND	ND	ND			
PCB049	1	ND	ND	ND	ND	ND	ND	ND			
PCB052	1	ND	ND	ND	ND	ND	ND	ND			
PCB066	1	ND	ND	ND	ND	ND	ND	ND			
PCB070	1	ND	ND	ND	ND	ND	ND	ND			
PCB074	1	ND	ND	ND	ND	ND	ND	ND			
PCB077	1	ND	ND	ND	ND	ND	ND	ND			
PCB081	1	ND	ND	ND	ND	ND	ND	ND			
PCB087	1	ND	ND	ND	ND	ND	ND	ND			
PCB095	1	ND	ND	ND	ND	ND	ND	ND			
PCB097	1	ND	ND	ND	ND	ND	ND	ND			
PCB099	1	ND	ND	ND	ND	ND	ND	ND			
PCB101	1	ND	ND	ND	ND	ND	ND	ND			
PCB105	1	ND	ND	ND	ND	ND	ND	ND			
PCB110	1	ND	ND	ND	ND	ND	ND	ND			
PCB114	1	ND	ND	ND	ND	ND	ND	ND			
PCB118	1	ND	ND	ND	ND	ND	ND	ND			
PCB119	1	ND	ND	ND	ND	ND	ND	ND			
PCB123	1	ND	ND	ND	ND	ND	ND	ND			
PCB126	1	ND	ND	ND	ND	ND	ND	ND			
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND			
PCB138	1	ND	ND	ND	ND	ND	ND	ND			
PCB141	1	ND	ND	ND	ND	ND	ND	ND			
PCB149	1	ND	ND	ND	ND	ND	ND	ND			
PCB151	1	ND	ND	ND	ND	ND	ND	ND			
PCB153	1	ND	ND	ND	ND	ND	ND	ND			
PCB156	1	ND	ND	ND	ND	ND	ND	ND			
PCB157	1	ND	ND	ND	ND	ND	ND	ND			
PCB158	1	ND	ND	ND	ND	ND	ND	ND			
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND			
PCB169	1	ND	ND	ND	ND	ND	ND	ND			
PCB170	1	ND	ND	ND	ND	ND	ND	ND			
PCB177	1	ND	ND	ND	ND	ND	ND	ND			
PCB180	1	ND	ND	ND	ND	ND	ND	ND			
PCB183	1	ND	ND	ND	ND	ND	ND	ND			
PCB187	1	ND	ND	ND	ND	ND	ND	ND			
PCB189	1	ND	ND	ND	ND	ND	ND	ND			
PCB194	1	ND	ND	ND	ND	ND	ND	ND			
PCB200	1	ND	ND	ND	ND	ND	ND	ND			
PCB201	1	ND	ND	ND	ND	ND	ND	ND			
PCB206	1	ND	ND	ND	ND	ND	ND	ND			
Total Detectable PCBs		ND	ND	ND	ND	ND	ND	ND			
Analyte	**MDL**	**BST01**	**BST02**	**BST03**	**BST04**	**BST05**	**BST06**	**BST07**			
PCB018	1	ND	ND	ND	ND	ND	ND	ND			

Sediment chemistry data (definitive)—PCB congeners results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB028	1	ND	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND	ND
PCB037	1	ND	ND	ND	ND	ND	ND	ND
PCB044	1	ND	ND	ND	ND	ND	ND	ND
PCB049	1	ND	ND	ND	ND	ND	ND	ND
PCB052	1	ND	ND	ND	ND	ND	ND	ND
PCB066	1	ND	ND	ND	ND	ND	ND	ND
PCB070	1	ND	ND	ND	ND	ND	ND	ND
PCB074	1	ND	ND	ND	ND	ND	ND	ND
PCB077	1	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND	ND
PCB105	1	ND	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND
PCB138	1	ND	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND	ND
PCB183	1	ND	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND	ND
PCB194	1	ND	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		ND	ND	ND	ND	ND	ND	ND
Analyte	**MDL**	**BST08**	**BST09**	**BST10**	**BST11**	**BST12**	**BST12 (R2)**	
PCB018	1	ND	ND	ND	ND	ND	ND	
PCB028	1	ND	ND	ND	ND	ND	ND	
PCB031	1	ND	ND	ND	ND	ND	ND	
PCB033	1	ND	ND	ND	ND	ND	ND	
PCB037	1	ND	ND	ND	ND	ND	ND	
PCB044	1	ND	ND	ND	ND	ND	ND	
PCB049	1	ND	ND	ND	ND	ND	ND	
PCB052	1	ND	ND	ND	ND	ND	ND	
PCB066	1	ND	ND	ND	ND	ND	ND	
PCB070	1	ND	ND	ND	ND	ND	ND	
PCB074	1	ND	ND	ND	ND	ND	ND	

Sediment chemistry data (definitive)—PCB congeners results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB077	1	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND
PCB105	1	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND
PCB138	1	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND
PCB183	1	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND
PCB194	1	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		ND	ND	ND	ND	ND	ND

Sediment chemistry data (definitive)—PAH results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	SWZ01	SWZ02	SWZ03	SWZ04	SWZ05	SWZ06
1-Methylnaphthalene	1	8.7	12.1	25.5	12.8	9.9	43.9
1-Methylphenanthrene	1	21.7	17.2	59	28.7	38	31.1
2,3,5-Trimethylnaphthalene	1	8.9	4.4	15	5.4	7.2	7.3
2,6-Dimethylnaphthalene	1	10.8	16.4	37.2	32.5	14.4	31.1
2-Methylnaphthalene	1	16.2	19.2	28.4	29.4	17.5	64.8
Acenaphthene	1	14.8	16.5	28.9	24.6	15	12.4
Acenaphthylene	1	22.8	24.6	89.5	55.5	58.9	61.8
Anthracene	1	106	68.4	211	141	109	117
Benz[a]anthracene	1	445	243	708	611	359	540
Benzo[a]pyrene	1	861	409	1530	2090	605	1090
Benzo[b]fluoranthene	1	698	326	923	1340	424	654
Benzo[e]pyrene	1	539	254	773	1090	377	619
Benzo[g,h,i]perylene	1	580	340	829	1780	381	565
Benzo[k]fluoranthene	1	727	392	1060	1500	417	734
Biphenyl	1	4.7	7	8	9.8	5.1	10
Chrysene	1	647	385	910	971	498	705
Dibenz[a,h]anthracene	1	306	205	539	535	206	306
Fluoranthene	1	747	497	1090	941	701	806
Fluorene	1	25.2	23.8	40.3	33.8	14.9	16.4

Sediment chemistry data (definitive)—PAH results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Indeno[1,2,3-c,d]pyrene	1	826	344	1150	2130	473	762				
Naphthalene	1	16.3	22.3	31.5	52.7	22.1	37.3				
Perylene	1	204	111	282	399	143	198				
Phenanthrene	1	193	198	238	295	197	179				
Pyrene	1	1010	562	1890	1220	1040	1040				
Total Detectable PAHs		8039.1	4497.9	12496.3	15328.2	6133	8631.1				
Analyte	**MDL**	**DAC01**	**DAC02**	**DAC03**	**DAC04**	**DAC05**	**DAC06**	**DAC06 (R2)**	**DAC07**	**DAC08**	**DAC09**
1-Methylnaphthalene	1	6.5	5.2	4.7	3.5	5.9	7.2	6.8	4	5.4	3.9
1-Methylphenanthrene	1	6.8	12.5	8.6	7	11.8	8.9	8.9	4.7	14.3	14.9
2,3,5-Trimethylnaphthalene	1	1.2	2.7	2	1.6		1.5	2.2	N	N	3.9
2,6-Dimethylnaphthalene	1	7.7	7.1	6.2	4.2	6.5	6.9	6.1	5.4	9.4	4.7
2-Methylnaphthalene	1	13.2	11.8	9.1	6.8	11.4	12.7	11.9	9.6	12.1	8.4
Acenaphthene	1	5.9	5.9	5.5	4.4	6.8	3.5	5.1	3.2	2.4	2.7
Acenaphthylene	1	31.9	33.5	45.7	11.1	14.6	24.2	24.6	17.7	14.5	15.3
Anthracene	1	110	132	97.3	47.9	50.5	67.9	62.2	54.3	36.9	38.1
Benz[a]anthracene	1	217	177	247	104	234	189	199	123	157	161
Benzo[a]pyrene	1	671	490	674	302	448	377	518	412	369	363
Benzo[b]fluoranthene	1	517	389	545	218	341	361	462	330	352	317
Benzo[e]pyrene	1	370	331	393	201	262	285	325	221	266	212
Benzo[g,h,i]perylene	1	306	469	499	180	423	382	404	289	398	294
Benzo[k]fluoranthene	1	595	477	621	228	382	437	467	374	338	345
Biphenyl	1	3.2	3.4	2.4	2	3.4	3.9	3.8	2	2.3	1.9
Chrysene	1	516	382	482	177	329	323	411	218	261	237
Dibenz[a,h]anthracene	1	325	356	333	116	227	273	242	159	169	120
Fluoranthene	1	236	287	280	215	376	248	300	194	256	222
Fluorene	1	7	9.1	6.6	7.1	8.2	8.5	10.9	9.2	6.7	5.4
Indeno[1,2,3-c,d]pyrene	1	598	643	690	265	470	517	531	412	460	373
Naphthalene	1	9.8	12.7	7.9	8.6	9.7	12.3	14	9.2	13.2	8.4
Perylene	1	127	159	175	78.7	119	118	133	73	133	111
Phenanthrene	1	64.4	90	78.5	80.6	104	63.6	83.4	54	65.7	60.5
Pyrene	1	271	342	288	195	341	242	294	193	297	214
Total Detectable PAHs		5016.6	4827.9	5501.5	2464.5	4184.8	3973.1	4525.9	3171.3	3638.9	3137.1
Analyte	**MDL**	**2229**	**2229 (R2)**	**2238**	**2243**	**2433**	**2435**	**2441**			
1-Methylnaphthalene	1	1.3	2.1	3.6	2.2	2.4	2.2	4.4			
1-Methylphenanthrene	1	10.1	2.6	ND	ND	4.4	ND	7.1			
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND			
2,6-Dimethylnaphthalene	1	ND	ND	ND	1.9	3.3	ND	8			
2-Methylnaphthalene	1	5	5.6	5.5	3.4	4.4	3.3	8.3			
Acenaphthene	1	ND	ND	ND	ND	4.4	ND	7.9			
Acenaphthylene	1	7.9	9	ND	2.1	5.5	1.6	8.4			
Anthracene	1	14.4	13.2	ND	3.5	17.8	5	52.5			
Benz[a]anthracene	1	108	48.8	5	12.5	73.1	16.9	94			
Benzo[a]pyrene	1	177	135	23.2	41.7	138	43.9	141			
Benzo[b]fluoranthene	1	93.2	72.2	13.9	39.7	87.7	40.5	101			
Benzo[e]pyrene	1	103	65	17.9	28.6	73.1	27.3	73.3			
Benzo[g,h,i]perylene	1	140	96.8	ND	30.8	100	15.9	38.1			
Benzo[k]fluoranthene	1	115	80.6	17.1	39.3	116	48.6	128			
Biphenyl	1	ND	ND	1.2	ND	ND	ND	1.9			
Chrysene	1	128	83.6	8.5	23.1	109	28.6	164			
Dibenz[a,h]anthracene	1	ND	ND	ND	ND	ND	ND	ND			
Fluoranthene	1	104	65.7	22.7	21.8	77.8	22.9	198			
Fluorene	1	ND	ND	ND	ND	3.7	ND	14.3			
Indeno[1,2,3-c,d]pyrene	1	160	117	ND	45	101	29.6	60.1			
Naphthalene	1	5.1	5.1	5.2	3.8	4.7	2.3	7.2			
Perylene	1	33.8	33.1	ND	11.6	30.8	9.3	37.9			
Phenanthrene	1	22.8	13.2	5.7	4.6	30.2	8	76.6			
Pyrene	1	144	120	24.8	21.7	93.6	24	140			
Total Detectable PAHs		1372.6	968.6	154.3	337.3	1080.9	329.9	1372			
Analyte	**MDL**	**BST01**	**BST02**	**BST03**	**BST04**	**BST05**	**BST06**	**BST07**			

Sediment chemistry data (definitive)—PAH results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

1-Methylnaphthalene	1	6.4	6.6	8.1	8.3	5.5	7.1	14.6
1-Methylphenanthrene	1	44.3	52.9	36.1	38.2	33.6	8.1	148
2,3,5-Trimethylnaphthalene	1	10	ND	5	3.8	1.3	ND	ND
2,6-Dimethylnaphthalene	1	10.8	21.3	9.6	14.7	14.3	4.9	44
2-Methylnaphthalene	1	17.1	86.1	15.5	31.8	52.6	11.5	29
Acenaphthene	1	13.5	19.2	60.7	23	13.1	6.2	174
Acenaphthylene	1	93.7	60.2	31.1	86.1	34.6	29.3	404
Anthracene	1	699	3300	243	977	2030	101	1900
Benz[a]anthracene	1	1360	911	646	839	369	252	5710
Benzo[a]pyrene	1	2700	1110	814	2350	697	549	7740
Benzo[b]fluoranthene	1	2430	1130	509	1710	517	422	7100
Benzo[e]pyrene	1	1590	607	440	1300	392	274	4230
Benzo[g,h,i]perylene	1	1580	570	363	1350	284	253	2800
Benzo[k]fluoranthene	1	2780	1250	588	1840	624	474	5770
Biphenyl	1	5.1	16.6	6.8	5.4	10.4	2.9	14.1
Chrysene	1	2690	1670	640	1610	686	476	1010
Dibenz[a,h]anthracene	1	1430	372	231	852	185	27.1	2250
Fluoranthene	1	924	929	1100	828	421	289	7130
Fluorene	1	61.9	272	68.4	94.9	194	13.2	249
Indeno[1,2,3-c,d]pyrene	1	2170	1102	654	2040	508	351	4700
Naphthalene	1	20.9	67.1	13.7	29.1	48.6	10.3	13.5
Perylene	1	566	277	178	550	173	125	1620
Phenanthrene	1	340	740	657	345	404	85	2040
Pyrene	1	1250	879	842	854	358	266	5120
Total Detectable PAHs		22792.7	15449	8160	17780.3	8056	4037.6	60210.2

Analyte	**MDL**	**BST08**	**BST09**	**BST10**	**BST11**	**BST12**	**BST12 (R2)**
1-Methylnaphthalene	1	8.2	9.8	3.5	4.1	5.5	4.4
1-Methylphenanthrene	1	35.8	172	8.4	9.5	10.6	20.8
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	1	9.7	86	ND	ND	ND	ND
2-Methylnaphthalene	1	22.1	365	5.7	8.9	12.9	10.4
Acenaphthene	1	44.9	22.2	ND	1.3	8.3	9.9
Acenaphthylene	1	85.4	64.9	16.6	20.2	32.6	34.7
Anthracene	1	653	1680	56.6	46.2	113	138
Benz[a]anthracene	1	1150	767	156	217	267	301
Benzo[a]pyrene	1	1430	1850	391	524	523	709
Benzo[b]fluoranthene	1	897	1060	269	285	370	468
Benzo[e]pyrene	1	798	671	235	218	374	357
Benzo[g,h,i]perylene	1	587	806	216	348	326	456
Benzo[k]fluoranthene	1	857	902	216	256	308	379
Biphenyl	1	6.6	60.4	ND	ND	ND	ND
Chrysene	1	1630	1820	287	321	579	523
Dibenz[a,h]anthracene	1	495	716	59.7	142	165	265
Fluoranthene	1	1320	919	171	197	280	375
Fluorene	1	87.5	1510	4.7	5.4	17	17
Indeno[1,2,3-c,d]pyrene	1	892	1400	304	390	591	646
Naphthalene	1	11.5	254	6.4	9.3	8.7	9
Perylene	1	371	285	92.2	83.9	118	192
Phenanthrene	1	507	2860	38.8	59.3	111	125
Pyrene	1	774	752	189	244	273	288
Total Detectable PAHs		12672.7	19032.3	2726.6	3390.1	4493.6	5328.2

Sediment chemistry data (definitive)—TOC results summary (all results in mg/kg dry)—CRG Marine Laboratories, Inc.

Analyte	**MDL**	**SWZ01**	**SWZ02**	**SWZ03**	**SWZ04**	**SWZ05**	**SWZ06**
Total Organic Carbon	1000	20600	21600	14000	24200	14500	19000

Analyte	**MDL**	**DAC01**	**DAC02**	**DAC03**	**DAC04**	**DAC05**	**DAC06**	**DAC07**	**DAC08**	**DAC09**
Total Organic Carbon	1000	23100	20200	17900	13800	12000	14000	12900	13300	12400

Analyte	**MDL**	**2229**	**2238**	**2243**	**2433**	**2435**	**2441**
Total Organic Carbon	1000	4630	9250	3910	5640	3140	20000

Analyte	MDL	BST01	BST02	BST03	BST04	BST05	BST06	BST07	BST08	BST09	BST10	BST11	BST12
Total Organic Carbon	1000	17500	12500	9190	19200	10100	7650	20900	11700	7280	6830	7030	10000

Grain size analyses (definitive)—University of San Diego

Size Fraction	Size (mm)	SWZ01	SWZ02	SWZ03	SWZ04	SWZ05	SWZ06
%Sand	63-2000	3.9	0.2	7.4	25.3	53.3	43.0
%Silt	4-63	74.3	74.7	69.2	56.4	34.4	41.2
%Clay	<4	21.8	25.1	23.4	18.3	12.3	15.8
%Total		100.0	100.0	100.0	100.0	100.0	100.0
%Fines (Silt + Clay)	<63	96.1	99.8	92.6	74.7	46.7	57.0

Size Fraction	Size (mm)	DAC01	DAC02	DAC03	DAC04	DAC05	DAC06	DAC07	DAC08	DAC09
%Sand	63-2000	15.7	19.9	26.3	44.0	42.6	28.0	31.0	40.6	31.7
%Silt	4-63	65.0	62.6	58.3	40.9	45.8	58.4	55.5	46.8	55.5
%Clay	<4	19.3	17.5	15.4	15.1	11.6	13.6	13.5	12.6	12.8
%Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
%Fines (Silt + Clay)	<63	84.3	80.1	73.7	56.0	57.4	72.0	69.0	59.4	68.3

Size Fraction	Size (mm)	2229	2238	2243	2433	2435	2441
%Sand	63-2000	64.3	33.5	57.8	50.9	71.9	37.1
%Silt	4-63	24.5	49.2	29.3	36.9	20.55	51.9
%Clay	<4	11.2	17.3	12.9	12.2	7.55	11
%Total		100.0	100.0	100.0	100.0	100.0	100.0
%Fines (Silt + Clay)	<63	35.7	66.5	42.2	49.1	28.1	62.9

Size Fraction	Size (mm)	BST01	BST02	BST03	BST04	BST05	BST06	BST07	BST08	BST09	BST10	BST11	BST12
%Sand	63-2000	30.2	30.9	37.8	32	35.4	38.4	29.1	32.6	45.6	43.7	40.9	33.1
%Silt	4-63	54.1	53.1	46.4	52.7	49.3	47.1	54.4	51.9	40.2	42.5	45.4	50.8
%Clay	<4	15.7	16	15.8	15.3	15.3	14.5	16.5	15.5	14.2	13.8	13.7	16.1
%Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
%Fines (Silt + Clay)	<63	69.8	69.1	62.2	68.0	64.6	61.6	70.9	67.4	54.4	56.3	59.1	66.9

Appendix G. Toxicity test results for definitive sampling.

10-day *Eohaustorius* survival toxicity test in sediment (definitive)—Marine Pollution Studies Laboratory

Station	Jar Number	Replicate	Final # Alive	Initial# Alive	Final Proportion Alive	Mean Final Proportion Alive	SD Final Proportion Alive	P (t-test vs control)
BST01	74	1	19	20	0.95	0.93	0.06	0.065
BST01	91	2	18	20	0.90			
BST01	124	3	19	20	0.95			
BST01	136	4	20	20	1.00			
BST01	170	5	17	20	0.85			
BST02	53	1	17	20	0.85	0.88	0.04	0.002
BST02	88	2	17	20	0.85			
BST02	94	3	18	20	0.90			
BST02	128	4	17	20	0.85			
BST02	158	5	19	20	0.95			
BST03	58	1	18	20	0.90	0.89	0.02	0.000
BST03	90	2	18	20	0.90			
BST03	105	3	17	20	0.85			
BST03	109	4	18	20	0.90			
BST03	150	5	18	20	0.90			
BST04	42	1	20	20	1.00	0.95	0.05	0.141
BST04	46	2	18	20	0.90			
BST04	100	3	20	20	1.00			
BST04	112	4	18	20	0.90			
BST04	164	5	19	20	0.95			
BST05	23	1	17	20	0.85	0.86	0.08	0.014
BST05	29	2	17	20	0.85			
BST05	119	3	16	20	0.80			
BST05	161	4	16	20	0.80			
BST05	162	5	20	20	1.00			
BST06	10	1	20	20	1.00	0.96	0.07	0.277
BST06	14	2	17	20	0.85			
BST06	59	3	20	20	1.00			
BST06	77	4	19	20	0.95			
BST06	163	5	20	20	1.00			
BST07	39	1	16	20	0.80	0.87	0.10	0.032
BST07	72	2	18	20	0.90			
BST07	80	3	18	20	0.90			
BST07	97	4	15	20	0.75			
BST07	122	5	20	20	1.00			
BST08	8	1	19	20	0.95	0.97	0.03	0.290
BST08	41	2	19	20	0.95			
BST08	70	3	19	20	0.95			
BST08	166	4	20	20	1.00			
BST08	169	5	20	20	1.00			
BST09	27	1	19	20	0.95	0.90	0.08	0.043
BST09	33	2	18	20	0.90			
BST09	61	3	17	20	0.85			
BST09	111	4	16	20	0.80			
BST09	118	5	20	20	1.00			
BST10	16	1	20	20	1.00	0.93	0.04	0.036
BST10	17	2	19	20	0.95			
BST10	40	3	18	20	0.90			
BST10	60	4	18	20	0.90			
BST10	138	5	18	20	0.90			

10-day *Eohaustorius* survival toxicity test in sediment (definitive)—Marine Pollution Studies Laboratory

Station	Jar Number	Replicate	Final # Alive	Initial# Alive	Final Proportion Alive	Mean Final Proportion Alive	SD Final Proportion Alive	P (t-test vs control)
BST11	12	1	19	20	0.95	0.97	0.04	0.342
BST11	19	2	18	20	0.90			
BST11	25	3	20	20	1.00			
BST11	84	4	20	20	1.00			
BST11	156	5	20	20	1.00			
BST12	65	1	18	20	0.90	0.95	0.05	0.141
BST12	66	2	20	20	1.00			
BST12	79	3	18	20	0.90			
BST12	126	4	19	20	0.95			
BST12	165	5	20	20	1.00			
DAC01	15	1	16	20	0.80	0.83	0.12	0.021
DAC01	21	2	15	20	0.75			
DAC01	28	3	19	20	0.95			
DAC01	98	4	14	20	0.70			
DAC01	147	5	19	20	0.95			
DAC02	35	1	17	20	0.85	0.91	0.05	0.022
DAC02	48	2	18	20	0.90			
DAC02	76	3	18	20	0.90			
DAC02	78	4	20	20	1.00			
DAC02	129	5	18	20	0.90			
DAC03	9	1	20	20	1.00	0.90	0.12	0.102
DAC03	24	2	16	20	0.80			
DAC03	68	3	19	20	0.95			
DAC03	132	4	20	20	1.00			
DAC03	152	5	15	20	0.75			
DAC04	56	1	16	20	0.80	0.60	0.26	0.016
DAC04	75	2	10	20	0.50			
DAC04	108	3	17	20	0.85			
DAC04	137	4	4	20	0.20			
DAC04	139	5	13	20	0.65			
DAC05	20	1	19	20	0.95	0.90	0.12	0.102
DAC05	52	2	20	20	1.00			
DAC05	96	3	18	20	0.90			
DAC05	144	4	14	20	0.70			
DAC05	154	5	19	20	0.95			
DAC06	62	1	17	20	0.85	0.96	0.07	0.277
DAC06	115	2	20	20	1.00			
DAC06	145	3	20	20	1.00			
DAC06	157	4	19	20	0.95			
DAC06	167	5	20	20	1.00			
DAC07	4	1	16	20	0.80	0.80	0.06	0.001
DAC07	38	2	16	20	0.80			
DAC07	106	3	15	20	0.75			
DAC07	130	4	15	20	0.75			
DAC07	143	5	18	20	0.90			
DAC08	51	1	16	20	0.80	0.74	0.13	0.006
DAC08	83	2	15	20	0.75			
DAC08	99	3	18	20	0.90			
DAC08	142	4	14	20	0.70			
DAC08	149	5	11	20	0.55			
DAC09	5	1	15	20	0.75	0.88	0.10	0.041
DAC09	13	2	17	20	0.85			
DAC09	34	3	19	20	0.95			
DAC09	125	4	17	20	0.85			

10-day *Eohaustorius* survival toxicity test in sediment (definitive)—Marine Pollution Studies Laboratory

Station	Jar Number	Replicate	Final # Alive	Initial# Alive	Final Proportion Alive	Mean Final Proportion Alive	SD Final Proportion Alive	P (t-test vs control)
DAC09	153	5	20	20	1.00			
SWZ01	31	1	14	20	0.70	0.73	0.10	0.002
SWZ01	81	2	14	20	0.70			
SWZ01	92	3	17	20	0.85			
SWZ01	102	4	12	20	0.60			
SWZ01	123	5	16	20	0.80			
SWZ02	11	1	13	20	0.65	0.76	0.10	0.004
SWZ02	45	2	17	20	0.85			
SWZ02	49	3	13	20	0.65			
SWZ02	71	4	17	20	0.85			
SWZ02	140	5	16	20	0.80			
SWZ03	6	1	16	20	0.80	0.84	0.13	0.036
SWZ03	37	2	14	20	0.70			
SWZ03	104	3	19	20	0.95			
SWZ03	110	4	20	20	1.00			
SWZ03	151	5	15	20	0.75			
SWZ04	22	1	13	20	0.65	0.69	0.19	0.012
SWZ04	26	2	17	20	0.85			
SWZ04	73	3	8	20	0.40			
SWZ04	120	4	17	20	0.85			
SWZ04	131	5	14	20	0.70			
SWZ05	43	1	13	20	0.65	0.73	0.12	0.010
SWZ05	67	2	13	20	0.65			
SWZ05	113	3	18	20	0.90			
SWZ05	114	4	14	20	0.70			
SWZ05	127	5	LOST	LOST	LOST			
SWZ06	18	1	17	20	0.85	0.70	0.11	0.002
SWZ06	30	2	11	20	0.55			
SWZ06	36	3	14	20	0.70			
SWZ06	87	4	13	20	0.65			
SWZ06	107	5	15	20	0.75			
2229	85	1	20	20	1.00	0.99	0.02	0.273
2229	86	2	20	20	1.00			
2229	95	3	20	20	1.00			
2229	117	4	19	20	0.95			
2229	121	5	20	20	1.00			
2238	2	1	18	20	0.90	0.87	0.10	0.038
2238	32	2	19	20	0.95			
2238	69	3	17	20	0.85			
2238	82	4	14	20	0.70			
2238	101	5	19	20	0.95			
2243	44	1	18	20	0.90	0.94	0.05	0.098
2243	47	2	20	20	1.00			
2243	55	3	20	20	1.00			
2243	57	4	18	20	0.90			
2243	103	5	18	20	0.90			
2433	1	1	18	20	0.90	0.93	0.04	0.036
2433	7	2	18	20	0.90			
2433	141	3	20	20	1.00			
2433	148	4	19	20	0.95			
2433	159	5	18	20	0.90			
2435	89	1	19	20	0.95	0.95	0.04	0.087
2435	116	2	20	20	1.00			
2435	133	3	18	20	0.90			

10-day *Eohaustorius* survival toxicity test in sediment (definitive)—Marine Pollution Studies Laboratory

Station	Jar Number	Replicate	Final # Alive	Initial# Alive	Final Proportion Alive	Mean Final Proportion Alive	SD Final Proportion Alive	P (t-test vs control)
2435	135	4	19	20	0.95			
2435	160	5	19	20	0.95			
2441	3	1	18	20	0.90	0.96	0.04	0.201
2441	64	2	19	20	0.95			
2441	134	3	19	20	0.95			
2441	146	4	20	20	1.00			
2441	155	5	20	20	1.00			
HOME	50	1	19	20	0.95	0.98	0.03	
HOME	54	2	20	20	1.00			
HOME	63	3	20	20	1.00			
HOME	93	4	20	20	1.00			
HOME	168	5	19	20	0.95			

2-day *Mytilus galloprovincialis* (mussel) larval development toxicity test at the sediment-water interface (definitive, Test 1 of 2)—Marine Pollution Studies Laboratory

Station	Vial #	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	P (t-test vs control)
SWZ01	1	1	164	143	0.87	0.74	0.13	0.163
	2	2	164	116	0.71			
	3	3	164	87	0.53			
	4	4	164	135	0.82			
	5	5	164	126	0.77			
SWZ02	6	1	164	126	0.77	0.66	0.16	0.064
	7	2	164	95	0.58			
	8	3	164	78	0.48			
	9	4	164	99	0.60			
	10	5	164	144	0.88			
SWZ03	11	1	164	148	0.90	0.86	0.09	0.429
	12	2	164	146	0.89			
	13	3	164	157	0.96			
	14	4	164	117	0.71			
	15	5	164	140	0.85			
SWZ04	16	1	164	136	0.83	0.67	0.14	0.066
	17	2	164	103	0.63			
	18	3	164	127	0.77			
	19	4	164	79	0.48			
	20	5	164	108	0.66			
SWZ05	21	1	164	113	0.69	0.82	0.11	0.380
	22	2	164	125	0.76			
	23	3	164	133	0.81			
	24	4	164	163	0.99			
	25	5	164	135	0.82			
SWZ06	26	1	164	97	0.59	0.80	0.17	0.354
	27	2	164	106	0.65			
	28	3	164	141	0.86			
	29	4	164	155	0.95			
	30	5	164	159	0.97			
DAC01	31	1	164	141	0.86	0.89	0.10	0.344
	32	2	164	153	0.93			
	33	3	164	148	0.90			
	34	4	164	163	0.99			
	35	5	164	121	0.74			
DAC02	36	1	164	158	0.96	0.96	0.13	0.138

2-day *Mytilus galloprovincialis* (mussel) larval development toxicity test at the sediment-water interface (definitive, Test 1 of 2)—Marine Pollution Studies Laboratory

Station	Vial #	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	P (t-test vs control)
	37	2	164	190	1.16			
	38	3	164	133	0.81			
	39	4	164	158	0.96			
	40	5	164	151	0.92			
DAC06	41	1	164	153	0.93	1.00	0.12	0.081
	42	2	164	156	0.95			
	43	3	164	187	1.14			
	44	4	164	183	1.12			
	45	5	164	141	0.86			
DAC08	46	1	164	170	1.04	0.90	0.11	0.293
	47	2	164	120	0.73			
	48	3	164	142	0.87			
	49	4	164	154	0.94			
	50	5	164	153	0.93			
2229	51	1	164	130	0.79	0.89	0.06	0.303
	52	2	164	156	0.95			
	53	3	164	146	0.89			
	54	4	164	154	0.94			
	55	5	164	147	0.90			
HOME	56	1	164	119	0.73	0.85	0.18	
	57	2	164	108	0.66			
	58	3	164	137	0.84			
	59	4	164	144	0.88			
	60	5	164	186	1.13			

2-day *Mytilus galloprovincialis* (mussel) larval development toxicity test at the sediment-water interface (definitive, Test 2 of 2)—Marine Pollution Studies Laboratory

Station	Vial #	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	P (t-test vs control)
Station	Vial	Replicate	Initial	Alive	Prop Alive	Mn Alive	SD Alive	P
DAC03	1	1	182	157	0.86	0.90	0.11	0.103
	2	2	182	165	0.91			
	3	3	182	191	1.05			
	4	4	182	169	0.93			
	5	5	182	134	0.74			
DAC04	6	1	182	168	0.92	0.77	0.13	0.226
	7	2	182	162	0.89			
	8	3	182	127	0.70			
	9	4	182	119	0.65			
	10	5	182	122	0.67			
DAC05	11	1	182	185	1.02	0.89	0.07	0.066
	12	2	182	152	0.84			
	13	3	182	154	0.85			
	14	4	182	156	0.86			
	15	5	182	159	0.87			
DAC07	16	1	182	151	0.83	0.86	0.03	0.083
	17	2	182	162	0.89			
	18	3	182	157	0.86			
	19	4	182	160	0.88			
	20	5	182	151	0.83			
DAC09	21	1	182	149	0.82	0.79	0.06	0.206
	22	2	182	155	0.85			
	23	3	182	135	0.74			

2-day *Mytilus galloprovincialis* (mussel) larval development toxicity test at the sediment-water interface (definitive, Test 2 of 2)—Marine Pollution Studies Laboratory

Station	Vial #	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	P (t-test vs control)
	24	4	182	148	0.81			
	25	5	182	130	0.71			
BST01	26	1	182	136	0.75	0.82	0.11	0.466
	27	2	182	173	0.95			
	28	3	182	167	0.92			
	29	4	182	143	0.79			
	30	5	182	129	0.71			
BST02	31	1	182	108	0.59	0.70	0.07	0.008
	32	2	182	127	0.70			
	33	3	182	129	0.71			
	34	4	182	140	0.77			
	35	5	182	133	0.73			
BST03	36	1	182	155	0.85	0.79	0.16	0.385
	37	2	182	141	0.77			
	38	3	182	94	0.52			
	39	4	182	168	0.92			
	40	5	182	164	0.90			
BST04	41	1	182	147	0.81	0.79	0.06	0.269
	42	2	182	127	0.70			
	43	3	182	158	0.87			
	44	4	182	148	0.81			
	45	5	182	143	0.79			
BST05	46	1	182	138	0.76	0.80	0.10	0.344
	47	2	182	175	0.96			
	48	3	182	125	0.69			
	49	4	182	137	0.75			
	50	5	182	149	0.82			
BST06	51	1	182	155	0.85	0.90	0.08	0.049
	52	2	182	154	0.85			
	53	3	182	165	0.91			
	54	4	182	188	1.03			
	55	5	182	155	0.85			
BST07	56	1	182	158	0.87	0.82	0.09	0.460
	57	2	182	142	0.78			
	58	3	182	151	0.83			
	59	4	182	169	0.93			
	60	5	182	128	0.70			
BST08	61	1	182	156	0.86	0.82	0.15	0.496
	62	2	182	159	0.87			
	63	3	182	100	0.55			
	64	4	182	161	0.88			
	65	5	182	167	0.92			
BST09	66	1	182	164	0.90	0.79	0.07	0.282
	67	2	182	130	0.71			
	68	3	182	140	0.77			
	69	4	182	151	0.83			
	70	5	182	137	0.75			
BST10	71	1	182	175	0.96	0.82	0.14	0.498
	72	2	182	132	0.73			
	73	3	182	123	0.68			
	74	4	182	175	0.96			
	75	5	182	139	0.76			
BST11	76	1	182	94	0.52	0.80	0.17	0.397

2-day *Mytilus galloprovincialis* (mussel) larval development toxicity test at the sediment-water interface (definitive, Test 2 of 2)—Marine Pollution Studies Laboratory

Station	Vial #	Replicate	Initial # Alive	Final # Normal Alive	Final Proportion Normal Alive	Mean Final Proportion Normal Alive	SD Final Proportion Normal Alive	P (t-test vs control)
	77	2	182	151	0.83			
	78	3	182	164	0.90			
	79	4	182	172	0.95			
	80	5	182	143	0.79			
BST12	81	1	182	145	0.80	0.76	0.06	0.068
	82	2	182	151	0.83			
	83	3	182	121	0.66			
	84	4	182	133	0.73			
	85	5	182	139	0.76			
2238	86	1	182	161	0.88	0.86	0.07	0.149
	87	2	182	136	0.75			
	88	3	182	171	0.94			
	89	4	182	158	0.87			
	90	5	182	157	0.86			
2243	91	1	182	140	0.77	0.78	0.02	0.085
	92	2	182	145	0.80			
	93	3	182	139	0.76			
	94	4	182	139	0.76			
	95	5	182	145	0.80			
2433	96	1	182	144	0.79	0.65	0.11	0.012
	97	2	182	110	0.60			
	98	3	182	132	0.73			
	99	4	182	93	0.51			
	100	5	182	112	0.62			
2435	101	1	182	101	0.55	0.55	0.18	0.014
	102	2	182	130	0.71			
	103	3	182	115	0.63			
	104	4	182	113	0.62			
	105	5	182	46	0.25			
2441	106	1	182	147	0.81	0.68	0.21	0.117
	107	2	182	99	0.54			
	108	3	182	182	1.00			
	109	4	182	95	0.52			
	110	5	182	98	0.54			
HOME	111	1	182			0.82	0.04	
	112	2	182	157	0.86			
	113	3	182	149	0.82			
	114	4	182	151	0.83			
	115	5	182	138	0.76			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
BST01	25	1	1	98	2	0.98	0.98	0.01	0.000
BST01	25	2	2	99	1	0.99			
BST01	25	3	3	99	1	0.99			
BST01	25	4	4	98	2	0.98			
BST01	25	5	5	97	3	0.97			
BST01	50	6	1	93	7	0.93	0.90	0.02	0.000
BST01	50	7	2	90	10	0.90			
BST01	50	8	3	89	11	0.89			
BST01	50	9	4	90	10	0.90			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
BST01	50	10	5	87	13	0.87			
BST01	100	11	1	82	18	0.82	0.84	0.06	0.007
BST01	100	12	2	89	11	0.89			
BST01	100	13	3	90	10	0.90			
BST01	100	14	4	76	24	0.76			
BST01	100	15	5	83	17	0.83			
BST02	25	16	1	90	10	0.90	0.90	0.02	0.000
BST02	25	17	2	90	10	0.90			
BST02	25	18	3	91	9	0.91			
BST02	25	19	4	93	7	0.93			
BST02	25	20	5	90	13	0.87			
BST02	50	21	1	89	11	0.89	0.87	0.06	0.002
BST02	50	22	2	89	11	0.89			
BST02	50	23	3	77	23	0.77			
BST02	50	24	4	92	8	0.92			
BST02	50	25	5	88	12	0.88			
BST02	100	26	1	85	15	0.85	0.78	0.05	0.082
BST02	100	27	2	75	25	0.75			
BST02	100	28	3	83	17	0.83			
BST02	100	29	4	76	24	0.76			
BST02	100	30	5	73	27	0.73			
BST03	25	31	1	92	8	0.92	0.91	0.07	0.002
BST03	25	32	2	90	10	0.90			
BST03	25	33	3	79	21	0.79			
BST03	25	34	4	94	6	0.94			
BST03	25	35	5	98	2	0.98			
BST03	50	36	1	90	10	0.90	0.93	0.03	0.000
BST03	50	37	2	93	7	0.93			
BST03	50	38	3	98	2	0.98			
BST03	50	39	4	94	6	0.94			
BST03	50	40	5	91	9	0.91			
BST03	100	41	1	81	19	0.81	0.85	0.05	0.002
BST03	100	42	2	88	12	0.88			
BST03	100	43	3	87	13	0.87			
BST03	100	44	4	90	10	0.90			
BST03	100	45	5	79	21	0.79			
BST04	25	46	1	93	7	0.93	0.94	0.03	0.000
BST04	25	47	2	91	9	0.91			
BST04	25	48	3	97	3	0.97			
BST04	25	49	4	92	8	0.92			
BST04	25	50	5	97	3	0.97			
BST04	50	51	1	96	4	0.96	0.96	0.02	0.000
BST04	50	52	2	98	2	0.98			
BST04	50	53	3	95	5	0.95			
BST04	50	54	4	95	5	0.95			
BST04	50	55	5	98	2	0.98			
BST04	100	56	1	96	4	0.96	0.93	0.03	0.000
BST04	100	57	2	89	11	0.89			
BST04	100	58	3	97	3	0.97			
BST04	100	59	4	94	6	0.94			
BST04	100	60	5	91	9	0.91			
BST05	25	61	1	90	10	0.90	0.94	0.03	0.000
BST05	25	62	2	94	6	0.94			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
BST05	25	63	3	97	3	0.97			
BST05	25	64	4	93	7	0.93			
BST05	25	65	5	96	4	0.96			
BST05	50	66	1	90	10	0.90	0.93	0.03	0.000
BST05	50	67	2	96	4	0.96			
BST05	50	68	3	95	5	0.95			
BST05	50	69	4	94	6	0.94			
BST05	50	70	5	90	10	0.90			
BST05	100	71	1	90	10	0.90	0.82	0.10	0.073
BST05	100	72	2	83	17	0.83			
BST05	100	73	3	90	10	0.90			
BST05	100	74	4	84	17	0.83			
BST05	100	75	5	65	35	0.65			
BST06	25	76	1	93	7	0.93	0.93	0.02	0.000
BST06	25	77	2	92	8	0.92			
BST06	25	78	3	93	7	0.93			
BST06	25	79	4	96	4	0.96			
BST06	25	80	5	90	10	0.90			
BST06	50	81	1	93	7	0.93	0.92	0.03	0.000
BST06	50	82	2	89	11	0.89			
BST06	50	83	3	92	8	0.92			
BST06	50	84	4	97	3	0.97			
BST06	50	85	5	90	10	0.90			
BST06	100	86	1	92	8	0.92	0.90	0.08	0.005
BST06	100	87	2	75	25	0.75			
BST06	100	88	3	94	6	0.94			
BST06	100	89	4	95	5	0.95			
BST06	100	90	5	93	7	0.93			
BST07	25	91	1	99	1	0.99	0.94	0.09	0.002
BST07	25	92	2	79	21	0.79			
BST07	25	93	3	100	0	1.00			
BST07	25	94	4	97	3	0.97			
BST07	25	95	5	95	5	0.95			
BST07	50	96	1	91	9	0.91	0.93	0.03	0.000
BST07	50	97	2	97	3	0.97			
BST07	50	98	3	90	10	0.90			
BST07	50	99	4	91	9	0.91			
BST07	50	100	5	97	3	0.97			
BST07	100	101	1	93	7	0.93	0.92	0.03	0.000
BST07	100	102	2	89	11	0.89			
BST07	100	103	3	93	7	0.93			
BST07	100	104	4	90	10	0.90			
BST07	100	105	5	96	4	0.96			
BST08	25	106	1	91	9	0.91	0.92	0.03	0.000
BST08	25	107	2	93	7	0.93			
BST08	25	108	3	90	10	0.90			
BST08	25	109	4	96	4	0.96			
BST08	25	110	5	90	10	0.90			
BST08	50	111	1	91	9	0.91	0.91	0.02	0.000
BST08	50	112	2	93	7	0.93			
BST08	50	113	3	93	7	0.93			
BST08	50	114	4	91	9	0.91			
BST08	50	115	5	89	11	0.89			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
BST08	100	116	1	91	9	0.91	0.92	0.05	0.000
BST08	100	117	2	94	6	0.94			
BST08	100	118	3	96	4	0.96			
BST08	100	119	4	96	4	0.96			
BST08	100	120	5	84	16	0.84			
BST09	25	121	1	96	4	0.96	0.94	0.02	0.000
BST09	25	122	2	92	8	0.92			
BST09	25	123	3	95	5	0.95			
BST09	25	124	4	94	6	0.94			
BST09	25	125	5	95	5	0.95			
BST09	50	126	1	95	5	0.95	0.92	0.02	0.000
BST09	50	127	2	89	11	0.89			
BST09	50	128	3	91	9	0.91			
BST09	50	129	4	93	7	0.93			
BST09	50	130	5	90	10	0.90			
BST09	100	131	1	92	8	0.92	0.88	0.08	0.006
BST09	100	132	2	75	25	0.75			
BST09	100	133	3	87	13	0.87			
BST09	100	134	4	90	10	0.90			
BST09	100	135	5	96	4	0.96			
BST10	25	136	1	90	10	0.90	0.92	0.02	0.000
BST10	25	137	2	92	8	0.92			
BST10	25	138	3	90	10	0.90			
BST10	25	139	4	94	6	0.94			
BST10	25	140	5	95	5	0.95			
BST10	50	141	1	922	8	0.99	0.94	0.03	0.000
BST10	50	142	2	91	9	0.91			
BST10	50	143	3	95	5	0.95			
BST10	50	144	4	91	9	0.91			
BST10	50	145	5	94	6	0.94			
BST10	100	146	1	87	13	0.87	0.83	0.04	0.003
BST10	100	147	2	86	14	0.86			
BST10	100	148	3	80	20	0.80			
BST10	100	149	4	78	22	0.78			
BST10	100	150	5	86	14	0.86			
BST11	25	151	1	90	10	0.90	0.91	0.04	0.000
BST11	25	152	2	88	12	0.88			
BST11	25	153	3	87	13	0.87			
BST11	25	154	4	98	2	0.98			
BST11	25	155	5	92	8	0.92			
BST11	50	156	1	84	16	0.84	0.86	0.08	0.014
BST11	50	157	2	92	8	0.92			
BST11	50	158	3	90	10	0.90			
BST11	50	159	4	92	8	0.92			
BST11	50	160	5	72	28	0.72			
BST11	100	161	1	94	6	0.94	0.91	0.04	0.000
BST11	100	162	2	84	16	0.84			
BST11	100	163	3	92	8	0.92			
BST11	100	164	4	94	6	0.94			
BST11	100	165	5	91	9	0.91			
BST12	25	166	1	87	13	0.87	0.91	0.05	0.000
BST12	25	167	2	88	12	0.88			
BST12	25	168	3	96	4	0.96			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
BST12	25	169	4	88	12	0.88			
BST12	25	170	5	98	2	0.98			
BST12	50	171	1	90	10	0.90	0.93	0.03	0.000
BST12	50	172	2	95	5	0.95			
BST12	50	173	3	93	7	0.93			
BST12	50	174	4	91	9	0.91			
BST12	50	175	5	96	4	0.96			
BST12	100	176	1	55	45	0.55	0.54	0.15	0.019
BST12	100	177	2	32	68	0.32			
BST12	100	178	3	66	33	0.67			
BST12	100	179	4	47	53	0.47			
BST12	100	180	5	68	32	0.68			
DAC01	25	181	1	92	8	0.92	0.95	0.02	0.000
DAC01	25	182	2	95	5	0.95			
DAC01	25	183	3	97	3	0.97			
DAC01	25	184	4	93	7	0.93			
DAC01	25	185	5	97	3	0.97			
DAC01	50	186	1	92	8	0.92	0.90	0.08	0.002
DAC01	50	187	2	96	4	0.96			
DAC01	50	188	3	97	3	0.97			
DAC01	50	189	4	89	11	0.89			
DAC01	50	190	5	78	22	0.78			
DAC01	100	191	1	86	14	0.86	0.89	0.03	0.000
DAC01	100	192	2	91	9	0.91			
DAC01	100	193	3	88	12	0.88			
DAC01	100	194	4	94	6	0.94			
DAC01	100	195	5	88	12	0.88			
DAC02	25	196	1	92	8	0.92	0.89	0.07	0.002
DAC02	25	197	2	93	7	0.93			
DAC02	25	198	3	96	4	0.96			
DAC02	25	199	4	81	19	0.81			
DAC02	25	200	5	83	17	0.83			
DAC02	50	201	1	98	2	0.98	0.89	0.09	0.007
DAC02	50	202	2	99	1	0.99			
DAC02	50	203	3	83	17	0.83			
DAC02	50	204	4	87	13	0.87			
DAC02	50	205	5	79	21	0.79			
DAC02	100	206	1	81	19	0.81	0.83	0.03	0.003
DAC02	100	207	2	84	16	0.84			
DAC02	100	208	3	78	22	0.78			
DAC02	100	209	4	86	14	0.86			
DAC02	100	210	5	84	16	0.84			
DAC03	25	211	1	81	19	0.81	0.88	0.07	0.003
DAC03	25	212	2	93	7	0.93			
DAC03	25	213	3	89	11	0.89			
DAC03	25	214	4	97	3	0.97			
DAC03	25	215	5	82	18	0.82			
DAC03	50	216	1	88	12	0.88	0.91	0.03	0.000
DAC03	50	217	2	91	9	0.91			
DAC03	50	218	3	91	9	0.91			
DAC03	50	219	4	90	10	0.90			
DAC03	50	220	5	96	4	0.96			
DAC03	100	221	1	63	37	0.63	0.75	0.11	0.387

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
DAC03	100	222	2	69	31	0.69			
DAC03	100	223	3	76	26	0.75			
DAC03	100	224	4	94	9	0.91			
DAC03	100	225	5	79	21	0.79			
DAC04	25	226	1	89	11	0.89	0.91	0.02	0.000
DAC04	25	227	2	93	7	0.93			
DAC04	25	228	3	90	10	0.90			
DAC04	25	229	4	93	7	0.93			
DAC04	25	230	5	91	9	0.91			
DAC04	50	231	1	94	6	0.94	0.91	0.06	0.001
DAC04	50	232	2	94	6	0.94			
DAC04	50	233	3	80	20	0.80			
DAC04	50	234	4	92	8	0.92			
DAC04	50	235	5	95	5	0.95			
DAC04	100	236	1	86	14	0.86	0.84	0.09	0.026
DAC04	100	237	2	94	6	0.94			
DAC04	100	238	3	86	14	0.86			
DAC04	100	239	4	70	30	0.70			
DAC04	100	240	5	86	14	0.86			
DAC05	25	241	1	80	20	0.80	0.91	0.08	0.002
DAC05	25	242	2	100	0	1.00			
DAC05	25	243	3	94	6	0.94			
DAC05	25	244	4	87	13	0.87			
DAC05	25	245	5	95	5	0.95			
DAC05	50	246	1	84	16	0.84	0.87	0.06	0.003
DAC05	50	247	2	85	15	0.85			
DAC05	50	248	3	90	10	0.90			
DAC05	50	249	4	79	21	0.79			
DAC05	50	250	5	95	5	0.95			
DAC05	100	251	1	71	29	0.71	0.81	0.07	0.050
DAC05	100	252	2	84	16	0.84			
DAC05	100	253	3	90	10	0.90			
DAC05	100	254	4	81	19	0.81			
DAC05	100	255	5	78	22	0.78			
DAC06	25	256	1	94	6	0.94	0.93	0.03	0.000
DAC06	25	257	2	92	8	0.92			
DAC06	25	258	3	88	12	0.88			
DAC06	25	259	4	95	5	0.95			
DAC06	25	260	5	96	4	0.96			
DAC06	50	261	1	82	18	0.82	0.86	0.08	0.015
DAC06	50	262	2	94	6	0.94			
DAC06	50	263	3	90	10	0.90			
DAC06	50	264	4	90	10	0.90			
DAC06	50	265	5	73	27	0.73			
DAC06	100	266	1	77	23	0.77	0.83	0.04	0.003
DAC06	100	267	2	83	17	0.83			
DAC06	100	268	3	83	17	0.83			
DAC06	100	269	4	85	15	0.85			
DAC06	100	270	5	87	13	0.87			
DAC07	25	271	1	97	3	0.97	0.93	0.06	0.000
DAC07	25	272	2	84	16	0.84			
DAC07	25	273	3	93	7	0.93			
DAC07	25	274	4	98	2	0.98			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
DAC07	25	275	5	92	8	0.92			
DAC07	50	276	1	90	10	0.90	0.90	0.04	0.000
DAC07	50	277	2	91	9	0.91			
DAC07	50	278	3	91	9	0.91			
DAC07	50	279	4	85	15	0.85			
DAC07	50	280	5	95	5	0.95			
DAC07	100	281	1	88	12	0.88	0.88	0.02	0.000
DAC07	100	282	2	90	10	0.90			
DAC07	100	283	3	88	12	0.88			
DAC07	100	284	4	86	14	0.86			
DAC07	100	285	5	90	10	0.90			
DAC08	25	286	1	83	17	0.83	0.89	0.04	0.000
DAC08	25	287	2	92	8	0.92			
DAC08	25	288	3	94	6	0.94			
DAC08	25	289	4	90	10	0.90			
DAC08	25	290	5	86	14	0.86			
DAC08	50	291	1	93	7	0.93	0.90	0.05	0.000
DAC08	50	292	2	95	5	0.95			
DAC08	50	293	3	86	14	0.86			
DAC08	50	294	4	90	10	0.90			
DAC08	50	295	5	84	16	0.84			
DAC08	100	296	1	91	9	0.91	0.90	0.02	0.000
DAC08	100	297	2	93	7	0.93			
DAC08	100	298	3	89	11	0.89			
DAC08	100	299	4	88	12	0.88			
DAC08	100	300	5	90	10	0.90			
DAC09	25	301	1	96	4	0.96	0.93	0.04	0.000
DAC09	25	302	2	90	10	0.90			
DAC09	25	303	3	89	11	0.89			
DAC09	25	304	4	97	3	0.97			
DAC09	25	305	5						
DAC09	50	306	1	91	9	0.91	0.89	0.02	0.000
DAC09	50	307	2	91	9	0.91			
DAC09	50	308	3	85	15	0.85			
DAC09	50	309	4	89	11	0.89			
DAC09	50	310	5	90	10	0.90			
DAC09	100	311	1	80	20	0.80	0.84	0.04	0.002
DAC09	100	312	2	86	14	0.86			
DAC09	100	313	3	80	20	0.80			
DAC09	100	314	4	89	11	0.89			
DAC09	100	315	5	85	15	0.85			
SWZ01	25	316	1	92	8	0.92	0.94	0.03	0.000
SWZ01	25	317	2	92	8	0.92			
SWZ01	25	318	3	95	5	0.95			
SWZ01	25	319	4	98	2	0.98			
SWZ01	25	320	5	92	8	0.92			
SWZ01	50	321	1	94	6	0.94	0.95	0.03	0.000
SWZ01	50	322	2	97	3	0.97			
SWZ01	50	323	3	99	1	0.99			
SWZ01	50	324	4	94	6	0.94			
SWZ01	50	325	5	93	7	0.93			
SWZ01	100	326	1	96	4	0.96	0.94	0.03	0.000
SWZ01	100	327	2	94	6	0.94			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
SWZ01	100	328	3	89	11	0.89			
SWZ01	100	329	4	95	5	0.95			
SWZ01	100	330	5	98	2	0.98			
SWZ02	25	331	1	92	8	0.92	0.91	0.02	0.000
SWZ02	25	332	2	91	9	0.91			
SWZ02	25	333	3	89	11	0.89			
SWZ02	25	334	4	93	7	0.93			
SWZ02	25	335	5	92	8	0.92			
SWZ02	50	336	1	81	19	0.81	0.88	0.05	0.001
SWZ02	50	337	2	93	7	0.93			
SWZ02	50	338	3	92	8	0.92			
SWZ02	50	339	4	90	10	0.90			
SWZ02	50	340	5	83	17	0.83			
SWZ02	100	341	1	97	3	0.97	0.95	0.02	0.000
SWZ02	100	342	2	94	6	0.94			
SWZ02	100	343	3	93	7	0.93			
SWZ02	100	344	4	97	3	0.97			
SWZ02	100	345	5	95	5	0.95			
SWZ03	25	346	1	93	7	0.93	0.93	0.04	0.000
SWZ03	25	347	2	88	12	0.88			
SWZ03	25	348	3	89	11	0.89			
SWZ03	25	349	4	99	1	0.99			
SWZ03	25	350	5	95	5	0.95			
SWZ03	50	351	1	84	16	0.84	0.92	0.05	0.000
SWZ03	50	352	2	95	5	0.95			
SWZ03	50	353	3	96	4	0.96			
SWZ03	50	354	4	95	5	0.95			
SWZ03	50	355	5	92	8	0.92			
SWZ03	100	356	1	95	5	0.95	0.93	0.03	0.000
SWZ03	100	357	2	94	6	0.94			
SWZ03	100	358	3	89	11	0.89			
SWZ03	100	359	4	94	6	0.94			
SWZ03	100	360	5	91	9	0.91			
SWZ04	25	361	1	74	26	0.74	0.87	0.08	0.008
SWZ04	25	362	2	91	9	0.91			
SWZ04	25	363	3	86	14	0.86			
SWZ04	25	364	4	94	6	0.94			
SWZ04	25	365	5	88	12	0.88			
SWZ04	50	366	1	79	21	0.79	0.89	0.06	0.001
SWZ04	50	367	2	89	11	0.89			
SWZ04	50	368	3	91	9	0.91			
SWZ04	50	369	4	94	6	0.94			
SWZ04	50	370	5	94	6	0.94			
SWZ04	100	371	1	92	8	0.92	0.91	0.04	0.000
SWZ04	100	372	2	90	10	0.90			
SWZ04	100	373	3	93	7	0.93			
SWZ04	100	374	4	94	6	0.94			
SWZ04	100	375	5	84	16	0.84			
SWZ05	25	376	1	84	16	0.84	0.88	0.04	0.000
SWZ05	25	377	2	86	14	0.86			
SWZ05	25	378	3	84	16	0.84			
SWZ05	25	379	4	92	8	0.92			
SWZ05	25	380	5	92	8	0.92			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
SWZ05	50	381	1	86	14	0.86	0.87	0.04	0.000
SWZ05	50	382	2	90	10	0.90			
SWZ05	50	383	3	81	19	0.81			
SWZ05	50	384	4	90	10	0.90			
SWZ05	50	385	5	87	13	0.87			
SWZ05	100	386	1	93	7	0.93	0.94	0.03	0.000
SWZ05	100	387	2	90	10	0.90			
SWZ05	100	388	3	94	6	0.94			
SWZ05	100	389	4	95	5	0.95			
SWZ05	100	390	5	98	2	0.98			
SWZ06	25	391	1	82	18	0.82	0.75	0.10	0.391
SWZ06	25	392	2	69	31	0.69			
SWZ06	25	393	3	61	39	0.61			
SWZ06	25	394	4	85	15	0.85			
SWZ06	25	395	5	79	21	0.79			
SWZ06	50	396	1	72	28	0.72	0.83	0.07	0.024
SWZ06	50	397	2	81	19	0.81			
SWZ06	50	398	3	87	13	0.87			
SWZ06	50	399	4	83	17	0.83			
SWZ06	50	400	5	91	9	0.91			
SWZ06	100	401	1	77	23	0.77	0.82	0.04	0.007
SWZ06	100	402	2	80	20	0.80			
SWZ06	100	403	3	87	13	0.87			
SWZ06	100	404	4	80	20	0.80			
SWZ06	100	405	5	85	15	0.85			
2229	25	406	1	87	13	0.87	0.86	0.06	0.006
2229	25	407	2	82	18	0.82			
2229	25	408	3	94	6	0.94			
2229	25	409	4	88	12	0.88			
2229	25	410	5	77	23	0.77			
2229	50	411	1	87	13	0.87	0.82	0.05	0.015
2229	50	412	2	75	25	0.75			
2229	50	413	3	82	18	0.82			
2229	50	414	4	87	13	0.87			
2229	50	415	5	78	22	0.78			
2229	100	416	1	85	15	0.85	0.84	0.07	0.018
2229	100	417	2	81	19	0.81			
2229	100	418	3	95	5	0.95			
2229	100	419	4	81	19	0.81			
2229	100	420	5	76	24	0.76			
2238	25	421	1	84	16	0.84	0.78	0.04	0.087
2238	25	422	2	72	28	0.72			
2238	25	423	3	76	24	0.76			
2238	25	424	4	78	22	0.78			
2238	25	425	5	79	21	0.79			
2238	50	426	1	88	12	0.88	0.87	0.05	0.001
2238	50	427	2	92	8	0.92			
2238	50	428	3	87	13	0.87			
2238	50	429	4	90	10	0.90			
2238	50	430	5	80	20	0.80			
2238	100	431	1	83	17	0.83	0.75	0.08	0.367
2238	100	432	2	63	37	0.63			
2238	100	433	3	81	19	0.81			

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
2238	100	434	4	75	25	0.75			
2238	100	435	5	74	26	0.74			
2243	25	436	1	85	15	0.85	0.79	0.05	0.050
2243	25	437	2	72	28	0.72			
2243	25	438	3	80	20	0.80			
2243	25	439	4	78	22	0.78			
2243	25	440	5	80	20	0.80			
2243	50	441	1	72	28	0.72	0.76	0.03	0.212
2243	50	442	2	81	29	0.74			
2243	50	443	3	77	23	0.77			
2243	50	444	4	81	19	0.81			
2243	50	445	5	83	27	0.75			
2243	100	446	1	69	31	0.69	0.70	0.08	0.202
2243	100	447	2	76	24	0.76			
2243	100	448	3	65	35	0.65			
2243	100	449	4	68	42	0.62			
2243	100	450	5	80	20	0.80			
2433	25	451	1	79	21	0.79	0.74	0.05	0.491
2433	25	452	2	78	22	0.78			
2433	25	453	3	80	31	0.72			
2433	25	454	4	70	34	0.67			
2433	25	455	5	73	28	0.72			
2433	50	456	1	88	12	0.88	0.80	0.05	0.025
2433	50	457	2	79	24	0.77			
2433	50	458	3	77	24	0.76			
2433	50	459	4	89	22	0.80			
2433	50	460	5	93	23	0.80			
2433	100	461	1	76	24	0.76	0.68	0.06	0.056
2433	100	462	2	75	29	0.72			
2433	100	463	3	73	38	0.66			
2433	100	464	4	64	42	0.60			
2433	100	465	5	70	39	0.64			
2435	25	466	1	68	32	0.68	0.74	0.05	0.474
2435	25	467	2	71	30	0.70			
2435	25	468	3	76	24	0.76			
2435	25	469	4	89	22	0.80			
2435	25	470	5	77	25	0.75			
2435	50	471	1	73	27	0.73	0.69	0.20	0.327
2435	50	472	2	87	147	0.37			
2435	50	473	3	91	10	0.90			
2435	50	474	4	79	22	0.78			
2435	50	475	5	73	33	0.69			
2435	100	476	1	70	30	0.70	0.75	0.03	0.304
2435	100	477	2	76	25	0.75			
2435	100	478	3	79	25	0.76			
2435	100	479	4	82	28	0.75			
2435	100	480	5	86	22	0.80			
2441	25	481	1	80	20	0.80	0.70	0.10	0.256
2441	25	482	2	63	42	0.60			
2441	25	483	3	71	33	0.68			
2441	25	484	4	85	19	0.82			
2441	25	485	5	62	38	0.62			
2441	50	486	1	67	33	0.67	0.62	0.06	0.005

***Strongylocentrotus purpuratus* (purple urchin) fertilization toxicity test in porewater (definitive)—Marine Pollution Studies Laboratory**

Station	Dilution (% Sample)	Vial	Replicate	# Fertilized	# Unfertilized	Proportion Fertilized	Mean Proportion Fertilized	SD Proportion Fertilized	P (t-test)
2441	50	487	2	68	49	0.58			
2441	50	488	3	67	38	0.64			
2441	50	489	4	82	38	0.68			
2441	50	490	5	54	47	0.53			
2441	100	491	1	67	33	0.67	0.63	0.07	0.008
2441	100	492	2	69	35	0.66			
2441	100	493	3	71	52	0.58			
2441	100	494	4	78	35	0.69			
2441	100	495	5	85	73	0.54			
CONTROL	100	496	1	73	27	0.73	0.74	0.04	
CONTROL	100	497	2	75	25	0.75			
CONTROL	100	498	3	69	31	0.69			
CONTROL	100	499	4	72	28	0.72			
CONTROL	100	500	5	80	20	0.80			

Appendix H. Benthic community data for definitive sampling.

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
stat 2229															
Actiniaria	Cnidaria	O			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Americhelidium micropleon	Amphipoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Amphideutopus oculatus	Amphipoda	C			1	6	1	2.7	3.5	1	6	2.9	1.7	6.5	8
Apoprionospio pygmaea	Polychaeta	P			2	1	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Aruga holmesi	Amphipoda	C			0	1	3	1.3	1.5	0	3	1.5	0.9	3.4	4
Asteropella slatteryi	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			1	2	2	1.7	1.5	1	2	0.6	0.3	1.3	5
Brania mediodentata	Polychaeta	P			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Cirratilidae sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cryptomya californica	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			2	1	2	1.7	1.5	1	2	0.6	0.3	1.3	5
Edwardsiid	Cnidaria	O			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Euchone limnicola	Polychaeta	P			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Euclymeninae, unident.	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			3	0	3	2.0	1.5	0	3	1.7	1.0	3.9	6
Fabricinuda limnicola	Polychaeta	P			3	1	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Glycera americana	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Goniada littorea	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Hartmanodes hartmanae	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Leitoscoloplos pugettensis	Polychaeta	P			9	3	7	6.3	6.0	3	9	3.1	1.8	6.9	19
Listriella melanica	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Lyonsia californica	Bivalvia	M			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Mediomastus ambiseta	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			4	2	0	2.0	2.0	0	4	2.0	1.2	4.5	6
Mediomastus sp(p).	Polychaeta	P			2	6	11	6.3	6.5	2	11	4.5	2.6	10.1	19
Microspio oculata	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Nephtys cornuta	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Pennatulacea	Cnidaria	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
phoronida	Phoronida	O			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Pinnixa barnardi	Decapoda	C			0	0	4	1.3	2.0	0	4	2.3	1.3	5.2	4
Pinnixa sp.	Decapoda	C			1	0	3	1.3	1.5	0	3	1.5	0.9	3.4	4
Pista agassizi	Polychaeta	P			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Pista sp(p).	Polychaeta	P			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Prionospio heterobranchia	Polychaeta	P			3	12	7	7.3	7.5	3	12	4.5	2.6	10.1	22
Pseudopolydora paucibranchiata	Polychaeta	P			1	3	1	1.7	2.0	1	3	1.2	0.7	2.6	5
Pyromaia tuberculata	Decapoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			5	2	1	2.7	3.0	1	5	2.1	1.2	4.7	8
Scoletoma sp(p).	Polychaeta	P			0	6	3	3.0	3.0	0	6	3.0	1.7	6.8	9
Scoletoma sp. A	Polychaeta	P			10	2	8	6.7	6.0	2	10	4.2	2.4	9.4	20
Scoletoma sp. C	Polychaeta	P			5	5	8	6.0	6.5	5	8	1.7	1.0	3.9	18
Spionidae	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			8	2	12	7.3	7.0	2	12	5.0	2.9	11.3	22
Theora lubrica	Bivalvia	M			1	2	3	2.0	2.0	1	3	1.0	0.6	2.3	6
Total Fauna				**45**	**71**	**66**	**103**	**80.0**	**84.5**	**66**	**103**	**20.1**	**11.6**	**45.2**	**240**
Total Polychaetes				**25**	**57**	**49**	**75**	**60.3**	**62.0**	**49**	**75**	**13.3**	**7.7**	**30.0**	**181**
Total Molluscs				**4**	**2**	**5**	**7**	**4.7**	**4.5**	**2**	**7**	**2.5**	**1.5**	**5.7**	**14**
Total Crustaceans				**12**	**10**	**11**	**16**	**12.3**	**13.0**	**10**	**16**	**3.2**	**1.9**	**7.2**	**37**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**0**	**2**	**0**	**0.7**	**1.0**	**0**	**2**	**1.2**	**0.7**	**2.6**	**2**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Total Species				**45**	**26**	**23**	**33**	**27.3**	**28.0**	**23**	**33**	**5.1**	**3.0**	**11.5**	**82**
stat 2238															
Americhelidium mictopleon	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Amphipholis squamata	Ophiuriodia	O			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
anemone	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Anoplodactylus erectus	Pychnogonida	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Armandia brevis	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Brania mediodentata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cumella vugaris	Cumacea	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Cylindroleberididae	Ostracoda	C			1	6	1	2.7	3.5	1	6	2.9	1.7	6.5	8
Edwardsiid	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Exogone lourei	Polychaeta	P			17	6	19	14.0	12.5	6	19	7.0	4.0	15.8	42
Fabricinuda limnicola	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Heterophoxus affinis	Amphipoda	C	h		2	1	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Leitoscoloplos pugettensis	Polychaeta	P			3	2	1	2.0	2.0	1	3	1.0	0.6	2.3	6
Lyonsia californica	Bivalvia	M			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Macoma nasuta	Bivalvia	M			1	3	2	2.0	2.0	1	3	1.0	0.6	2.3	6
Mayerella banksia	Caprellidea	C			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Mediomastus californiensis	Polychaeta	P			15	23	7	15.0	15.0	7	23	8.0	4.6	18.0	45
Mediomastus sp(p).	Polychaeta	P			20	33	55	36.0	37.5	20	55	17.7	10.2	39.8	108
Megalomma pigmentum	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			9	2	20	10.3	11.0	2	20	9.1	5.2	20.4	31
Neanthes acuminata	Polychaeta	P			2	3	5	3.3	3.5	2	5	1.5	0.9	3.4	10
Neanthes sp(p).	Polychaeta	P			0	2	4	2.0	2.0	0	4	2.0	1.2	4.5	6
Odontosyllis phosphorea	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
oligochaeta	Oligochaeta	O	o		0	0	5	1.7	2.5	0	5	2.9	1.7	6.5	5
Paracerceis sp.	Isopoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
phoronida	Phoronida	O			1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Pista agassizi	Polychaeta	P			0	3	4	2.3	2.0	0	4	2.1	1.2	4.7	7
Pista sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Podocerus cristatus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			7	7	4	6.0	5.5	4	7	1.7	1.0	3.9	18
Rudilemboides stenopropodus	Amphipoda	C			8	9	0	5.7	4.5	0	9	4.9	2.8	11.1	17
Rutiderma judayi	Ostracoda	C			3	2	3	2.7	2.5	2	3	0.6	0.3	1.3	8
Scolelepis sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp(p).	Polychaeta	P			3	1	2	2.0	2.0	1	3	1.0	0.6	2.3	6
Scoletoma sp. A	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. C	Polychaeta	P			4	7	11	7.3	7.5	4	11	3.5	2.0	7.9	22
Scyphoproctus oculatus	Polychaeta	P			3	0	9	4.0	4.5	0	9	4.6	2.6	10.3	12
Solen rostriformis	Bivalvia	M			2	0	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Theora lubrica	Bivalvia	M			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Total Fauna				**41**	**111**	**130**	**163**	**134.7**	**137.0**	**111**	**163**	**26.3**	**15.2**	**59.2**	**404**
Total Polychaetes				**20**	**78**	**91**	**127**	**98.7**	**102.5**	**78**	**127**	**25.4**	**14.7**	**57.1**	**296**
Total Molluscs				**5**	**14**	**7**	**23**	**14.7**	**15.0**	**7**	**23**	**8.0**	**4.6**	**18.0**	**44**
Total Crustaceans				**11**	**18**	**26**	**7**	**17.0**	**16.5**	**7**	**26**	**9.5**	**5.5**	**21.5**	**51**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**0**	**0**	**5**	**1.7**	**2.5**	**0**	**5**	**2.9**	**1.7**	**6.5**	**5**
heterophoxus				**1**	**2**	**1**	**1**	**1.3**	**1.5**	**1**	**2**	**0.6**	**0.3**	**1.3**	**4**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**41**	**25**	**31**	**25**	**27.0**	**28.0**	**25**	**31**	**3.5**	**2.0**	**7.8**	**81**
stat 2243															
Acteocina inculata	Bivalvia	M			3	0	5	2.7	2.5	0	5	2.5	1.5	5.7	8
Actiniaria	Cnidaria	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Americhelidium mictopleon	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Ampelisca agassizi	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

				Number/core			Summary statistics							
Taxon	Group	Phy	RBI sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Amphideutopus oculatus	Amphipoda	C		2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Amphipholis squamata	Ophiuriodia	O		2	1	3	2.0	2.0	1	3	1.0	0.6	2.3	6
Anoplodactylus erectus	Pychnogonida	C		3	0	2	1.7	1.5	0	3	1.5	0.9	3.4	5
Armandia brevis	Polychaeta	P		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C		1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Diastylis sp.	Cumacea	C		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Dorvillea sp(p).	Polychaeta	P		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Edwardsiid	Cnidaria	O		3	0	4	2.3	2.0	0	4	2.1	1.2	4.7	7
Euchone limnicola	Polychaeta	P		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P		14	5	22	13.7	13.5	5	22	8.5	4.9	19.1	41
Fabricinuda limnicola	Polychaeta	P		2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Glycera americana	Polychaeta	P		1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P		5	1	3	3.0	3.0	1	5	2.0	1.2	4.5	9
Leptochelia dubia	Tanaidacea	C		0	2	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Lyonsia californica	Bivalvia	M		1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Macoma carlotteusis	Bivalvia	M		1	2	2	1.7	1.5	1	2	0.6	0.3	1.3	5
Mayerella banksia	Caprellidea	C		5	3	2	3.3	3.5	2	5	1.5	0.9	3.4	10
Mediomastus californiensis	Polychaeta	P		2	0	3	1.7	1.5	0	3	1.5	0.9	3.4	5
Mediomastus sp(p).	Polychaeta	P		5	1	2	2.7	3.0	1	5	2.1	1.2	4.7	8
Megalomma pigmentum	Polychaeta	P		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Melphidippa borealis	Amphipoda	C		4	4	0	2.7	2.0	0	4	2.3	1.3	5.2	8
Musculista senhousia	Bivalvia	M		2	4	6	4.0	4.0	2	6	2.0	1.2	4.5	12
Nemertea	Nemertea	O		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O		1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Odontosyllis phosphorea	Polychaeta	P		4	1	2	2.3	2.5	1	4	1.5	0.9	3.4	7
phoronida	Phoronida	O		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Phoronis sp	Phoronida	O		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P		1	4	1	2.0	2.5	1	4	1.7	1.0	3.9	6
Pista sp(p).	Polychaeta	P		2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Prionospio heterobranchia	Polychaeta	P		16	4	1	7.0	8.5	1	16	7.9	4.6	17.9	21
Pseudopolydora paucibranchiata	Polychaeta	P		13	8	12	11.0	10.5	8	13	2.6	1.5	6.0	33
Rudilemboides stenopropodus	Amphipoda	C		5	1	21	9.0	11.0	1	21	10.6	6.1	23.8	27
Rutiderma judayi	Ostracoda	C		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp(p).	Polychaeta	P		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P		3	1	1	1.7	2.0	1	3	1.2	0.7	2.6	5
Scoletoma sp. C	Polychaeta	P		6	4	3	4.3	4.5	3	6	1.5	0.9	3.4	13
Scyphoproctus oculatus	Polychaeta	P		0	4	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Solen rostriformis	Bivalvia	M		1	2	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Spiophanes duplex	Polychaeta	P		1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Theora lubrica	Bivalvia	M		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Vargula americana	Ostracoda	C		4	0	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Total Fauna			**45**	**119**	**59**	**106**	**94.7**	**89.0**	**59**	**119**	**31.6**	**18.2**	**71.0**	**284**
Total Polychaetes			**20**	**78**	**36**	**52**	**55.3**	**57.0**	**36**	**78**	**21.2**	**12.2**	**47.7**	**166**
Total Molluscs			**6**	**8**	**9**	**15**	**10.7**	**11.5**	**8**	**15**	**3.8**	**2.2**	**8.5**	**32**
Total Crustaceans			**12**	**25**	**13**	**29**	**22.3**	**21.0**	**13**	**29**	**8.3**	**4.8**	**18.7**	**67**
capitellids							**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes							**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus							**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina							**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species			**45**	**34**	**25**	**28**	**29.0**	**29.5**	**25**	**34**	**4.6**	**2.6**	**10.3**	**87**
stat 2433														
Ampelisca agassizi	Amphipoda	C		1	4	0	1.7	2.0	0	4	2.1	1.2	4.7	5
Ampelisca cristata	Amphipoda	C		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C		5	0	7	4.0	3.5	0	7	3.6	2.1	8.1	12
Apoprionospio pygmaea	Polychaeta	P		0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Asteropella slatteryi	Ostracoda	C		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chaetozone corona	Polychaeta	P		4	3	0	2.3	2.0	0	4	2.1	1.2	4.7	7

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Cossura sp. A	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			12	17	10	13.0	13.5	10	17	3.6	2.1	8.1	39
Dorvillea sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Edwardsiid	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			1	3	2	2.0	2.0	1	3	1.0	0.6	2.3	6
Euclymeninae, unident.	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Euphilomedes carcharodonta	Ostracoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Exogone lourei	Polychaeta	P			1	1	3	1.7	2.0	1	3	1.2	0.7	2.6	5
Goniada littorea	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteroserolis carinata	Isopoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			6	4	12	7.3	8.0	4	12	4.2	2.4	9.4	22
Lyonsia californica	Bivalvia	M			2	1	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Macoma carlotteusis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			14	3	0	5.7	7.0	0	14	7.4	4.3	16.6	17
Mediomastus sp(p).	Polychaeta	P			10	7	5	7.3	7.5	5	10	2.5	1.5	5.7	22
Microspio oculata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Monticellina cryptica	Polychaeta	P			4	6	6	5.3	5.0	4	6	1.2	0.7	2.6	16
Monticellina siblina	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			2	2	0	1.3	1.0	0	2	1.2	0.7	2.6	4
Nemertea	Nemertea	O			0	2	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Nemertea	Nemertea	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys caecoides	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys cornuta	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Notomastus magnus	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			2	1	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Prionospio heterobranchia	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Pseudopolydora paucibranchiata	Polychaeta	P			2	0	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Rudilemboides stenopropodus	Amphipoda	C			1	0	6	2.3	3.0	0	6	3.2	1.9	7.2	7
Scolelepis sp(p).	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Scoletoma sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			7	10	14	10.3	10.5	7	14	3.5	2.0	7.9	31
Scoletoma sp. C	Polychaeta	P			10	23	9	14.0	16.0	9	23	7.8	4.5	17.6	42
Spiophanes duplex	Polychaeta	P			5	9	0	4.7	4.5	0	9	4.5	2.6	10.1	14
Theora lubrica	Bivalvia	M			4	2	3	3.0	3.0	2	4	1.0	0.6	2.3	9
Typosyllis nipponica	Polychaeta	P			2	0	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Total Fauna				**43**	**103**	**114**	**90**	**102.3**	**102.0**	**90**	**114**	**12.0**	**6.9**	**27.0**	**307**
Total Polychaetes				**27**	**83**	**98**	**70**	**83.7**	**84.0**	**70**	**98**	**14.0**	**8.1**	**31.5**	**251**
Total Molluscs				**5**	**9**	**6**	**4**	**6.3**	**6.5**	**4**	**9**	**2.5**	**1.5**	**5.7**	**19**
Total Crustaceans				**8**	**11**	**6**	**14**	**10.3**	**10.0**	**6**	**14**	**4.0**	**2.3**	**9.1**	**31**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**0**	**0**	**1**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**43**	**28**	**29**	**22**	**26.3**	**25.5**	**22**	**29**	**3.8**	**2.2**	**8.5**	**79**
stat 2435															
Americhelidium micropleon	Amphipoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Ampelisca agassizi	Amphipoda	C			2	6	2	3.3	4.0	2	6	2.3	1.3	5.2	10
Ampelisca cristata	Amphipoda	C			14	9	2	8.3	8.0	2	14	6.0	3.5	13.6	25
Ampelisca milleri	Amphipoda	C			1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Ampharetidae	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphicteis scaphobranchiata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			4	6	2	4.0	4.0	2	6	2.0	1.2	4.5	12
Amphipholis squamata	Ophiuriodia	O			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Aphelochaeta sp(p).	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Apoprionospio pygmaea	Polychaeta	P			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Armandia brevis	Polychaeta	P			3	4	6	4.3	4.5	3	6	1.5	0.9	3.4	13
Asteropella slatteryi	Ostracoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Asthaenothaerus diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Brania mediodentata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Chaetozone corona	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chone sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Dorvillea sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Euclymeninae, unident.	Polychaeta	P			3	0	3	2.0	1.5	0	3	1.7	1.0	3.9	6
Euphilomedes carcharodonta	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			7	7	26	13.3	16.5	7	26	11.0	6.3	24.7	40
Glycera americana	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteroserolis carinata	Isopoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			4	5	0	3.0	2.5	0	5	2.6	1.5	6.0	9
Leptochelia dubia	Tanaidacea	C			0	8	2	3.3	4.0	0	8	4.2	2.4	9.4	10
Listriella melanica	Amphipoda	C			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Lyonsia californica	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Macoma carlotteusis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			13	7	7	9.0	10.0	7	13	3.5	2.0	7.8	27
Mediomastus sp(p).	Polychaeta	P			7	12	2	7.0	7.0	2	12	5.0	2.9	11.3	21
Monticellina cryptica	Polychaeta	P			2	3	0	1.7	1.5	0	3	1.5	0.9	3.4	5
Monticellina siblina	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Nemertea	Nemertea	O			0	2	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Nemertea	Nemertea	O			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Notomastus hemipodus	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Odostomia (Chrysallida) sp.	Gastropoda	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Phyllodoce hartmanae	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Polydora cornuta	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			4	5	7	5.3	5.5	4	7	1.5	0.9	3.4	16
Proceraea sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pyromaia tuberculata	Decapoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rochefortia tumida	Bivalvia	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			4	13	11	9.3	8.5	4	13	4.7	2.7	10.6	28
Rutiderma rostratum	Ostracoda	C			0	4	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Scoletoma sp(p).	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Scoletoma sp. A	Polychaeta	P			20	18	5	14.3	12.5	5	20	8.1	4.7	18.3	43
Scoletoma sp. C	Polychaeta	P			16	13	6	11.7	11.0	6	16	5.1	3.0	11.5	35
Spiophanes bombyx	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			8	9	8	8.3	8.5	8	9	0.6	0.3	1.3	25
Tagelus subteres	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Typosyllis nipponica	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Vargula americana	Ostracoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Total Fauna				**56**	**128**	**144**	**114**	**128.7**	**129.0**	**114**	**144**	**15.0**	**8.7**	**33.8**	**386**
Total Polychaetes				**32**	**94**	**89**	**85**	**89.3**	**89.5**	**85**	**94**	**4.5**	**2.6**	**10.1**	**268**
Total Molluscs				**6**	**2**	**2**	**2**	**2.0**	**2.0**	**2**	**2**	**0.0**	**0.0**	**0.0**	**6**
Total Crustaceans				**15**	**29**	**51**	**25**	**35.0**	**38.0**	**25**	**51**	**14.0**	**8.1**	**31.5**	**105**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**0**	**0**	**1**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**56**	**31**	**30**	**36**	**32.3**	**33.0**	**30**	**36**	**3.2**	**1.9**	**7.2**	**97**
stat 2441															
Actiniaria	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Alcyonarian	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Ampelisca agassizi	Amphipoda	C			54	21	51	42.0	37.5	21	54	18.2	10.5	41.1	126
Ampelisca cristata	Amphipoda	C			3	1	1	1.7	2.0	1	3	1.2	0.7	2.6	5

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Amphideutopus oculatus	Amphipoda	C			31	12	5	16.0	18.0	5	31	13.5	7.8	30.3	48
Amphipholis squamata	Ophiuriodia	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Anoplodactylus erectus	Pychnogonida	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Armandia brevis	Polychaeta	P			14	15	1	10.0	8.0	1	15	7.8	4.5	17.6	30
Asteropella slatteryi	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chaetozone corona	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chone sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura pygodactylata	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Cossura sp. A	Polychaeta	P			8	7	0	5.0	4.0	0	8	4.4	2.5	9.8	15
Cylindroleberididae	Ostracoda	C			3	0	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Dorvillea sp(p).	Polychaeta	P			5	1	2	2.7	3.0	1	5	2.1	1.2	4.7	8
Edwardsiid	Cnidaria	O			27	37	42	35.3	34.5	27	42	7.6	4.4	17.2	106
Euchone limnicola	Polychaeta	P			2	3	2	2.3	2.5	2	3	0.6	0.3	1.3	7
Euclymeninae, unident.	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Euphilomedes carcharodonta	Ostracoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Exogone lourei	Polychaeta	P			3	8	0	3.7	4.0	0	8	4.0	2.3	9.1	11
Glycera americana	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Laonice cirrata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			37	26	15	26.0	26.0	15	37	11.0	6.4	24.8	78
Leptochelia dubia	Tanaidacea	C			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Listriella melanica	Amphipoda	C			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Mediomastus californiensis	Polychaeta	P			10	5	18	11.0	11.5	5	18	6.6	3.8	14.8	33
Mediomastus sp(p).	Polychaeta	P			9	8	18	11.7	13.0	8	18	5.5	3.2	12.4	35
Monticellina cryptica	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Neastacilla californica	Isopoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Nemertea	Nemertea	O			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Nephtys cornuta	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Notomastus hemipodus	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Photis brevipes	Amphipoda	C			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Phyllodoce longipes	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Polycladida	Platyhelmenthes	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			5	2	3	3.3	3.5	2	5	1.5	0.9	3.4	10
Prionospio lighti	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Pseudopolydora paucibranchiata	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Pterocirrus californiensis	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pyromaia tuberculata	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rochefortia tumida	Bivalvia	M			3	1	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Rudilemboides stenopropodus	Amphipoda	C			25	63	15	34.3	39.0	15	63	25.3	14.6	57.0	103
Scoletoma sp. A	Polychaeta	P			9	6	10	8.3	8.0	6	10	2.1	1.2	4.7	25
Scoletoma sp. C	Polychaeta	P			12	16	14	14.0	14.0	12	16	2.0	1.2	4.5	42
Spiophanes duplex	Polychaeta	P			13	16	5	11.3	10.5	5	16	5.7	3.3	12.8	34
Tellina modesta	Bivalvia	M	t		0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Theora lubrica	Bivalvia	M			3	2	0	1.7	1.5	0	3	1.5	0.9	3.4	5
Thracia curta	Bivalvia	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Total Fauna				**51**	**291**	**276**	**209**	**258.7**	**250.0**	**209**	**291**	**43.7**	**25.2**	**98.2**	**776**
Total Polychaetes				**25**	**135**	**120**	**91**	**115.3**	**113.0**	**91**	**135**	**22.4**	**12.9**	**50.3**	**346**
Total Molluscs				**5**	**6**	**6**	**1**	**4.3**	**3.5**	**1**	**6**	**2.9**	**1.7**	**6.5**	**13**
Total Crustaceans				**13**	**122**	**104**	**75**	**100.3**	**98.5**	**75**	**122**	**23.7**	**13.7**	**53.4**	**301**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**0**	**1**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina				**1**	**0**	**2**	**0**	**0.7**	**1.0**	**0**	**2**	**1.2**	**0.7**	**2.6**	**2**
Total Species				**51**	**33**	**37**	**21**	**30.3**	**29.0**	**21**	**37**	**8.3**	**4.8**	**18.7**	**91**

stat BST01

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Americhelidium micropleon	Amphipoda	C			4	1	1	2.0	2.5	1	4	1.7	1.0	3.9	6
Aphelochaeta sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Aruga holmesi	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asteropella slatteryi	Ostracoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chaetozone corona	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Chone sp(p).	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Cirratilidae sp(p).	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Cylindroleberididae	Ostracoda	C			1	2	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Diopatra splendidissima	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			7	2	17	8.7	9.5	2	17	7.6	4.4	17.2	26
Dorvillea sp(p).	Polychaeta	P			5	1	4	3.3	3.0	1	5	2.1	1.2	4.7	10
Eteone aestuarina	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Eupolymnia heterobranchia	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Eupolymnia heterobranchia	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Harmothoe imbricata	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Heterophoxus affinis	Amphipoda	C	h		2	0	3	1.7	1.5	0	3	1.5	0.9	3.4	5
Leitoscoloplos pugettensis	Polychaeta	P			15	4	8	9.0	9.5	4	15	5.6	3.2	12.5	27
Mediomastus californiensis	Polychaeta	P			12	4	4	6.7	8.0	4	12	4.6	2.7	10.4	20
Mediomastus sp(p).	Polychaeta	P			12	6	3	7.0	7.5	3	12	4.6	2.6	10.3	21
Monticellina cryptica	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Musculista senhousia	Bivalvia	M			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Nemertea	Nemertea	O			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Phtisica marina	Caprellidea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			1	0	4	1.7	2.0	0	4	2.1	1.2	4.7	5
Pista agassizi	Polychaeta	P			4	0	1	1.7	2.0	0	4	2.1	1.2	4.7	5
Prionospio heterobranchia	Polychaeta	P			15	3	15	11.0	9.0	3	15	6.9	4.0	15.6	33
Pseudopolydora paucibranchiata	Polychaeta	P			63	5	6	24.7	34.0	5	63	33.2	19.2	74.7	74
Pyromaia tuberculata	Decapoda	C			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Scoletoma sp. A	Polychaeta	P			7	8	3	6.0	5.5	3	8	2.6	1.5	6.0	18
Scoletoma sp. C	Polychaeta	P			20	5	13	12.7	12.5	5	20	7.5	4.3	16.9	38
Scyphoproctus oculatus	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			7	1	0	2.7	3.5	0	7	3.8	2.2	8.5	8
Tagelus subteres	Bivalvia	M			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Theora lubrica	Bivalvia	M			16	1	4	7.0	8.5	1	16	7.9	4.6	17.9	21
Total Fauna				**38**	**209**	**49**	**96**	**118.0**	**129.0**	**49**	**209**	**82.2**	**47.5**	**185.0**	**354**
Total Polychaetes				**23**	**178**	**41**	**79**	**99.3**	**109.5**	**41**	**178**	**70.7**	**40.8**	**159.1**	**298**
Total Molluscs				**4**	**18**	**3**	**5**	**8.7**	**10.5**	**3**	**18**	**8.1**	**4.7**	**18.3**	**26**
Total Crustaceans				**8**	**10**	**5**	**11**	**8.7**	**8.0**	**5**	**11**	**3.2**	**1.9**	**7.2**	**26**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**1**	**0**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
heterophoxus				**1**	**2**	**0**	**3**	**1.7**	**1.5**	**0**	**3**	**1.5**	**0.9**	**3.4**	**5**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**38**	**31**	**17**	**22**	**23.3**	**24.0**	**17**	**31**	**7.1**	**4.1**	**16.0**	**70**
stat BST02															
Actinaria	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Apoprionospio pygmaea	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Armandia brevis	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asteropella slatteryi	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Campylaspis rubromaculata	Cumacea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Chaetozone corona	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			17	11	13	13.7	14.0	11	17	3.1	1.8	6.9	41
Dorvillea sp(p).	Polychaeta	P			0	4	1	1.7	2.0	0	4	2.1	1.2	4.7	5

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Euchone limnicola	Polychaeta	P			1	2	2	1.7	1.5	1	2	0.6	0.3	1.3	5
Exogone lourei	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Glycera americana	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Heteriserolis carinata	Isopoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Heterophoxus affinis	Amphipoda	C	h		1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			7	11	8	8.7	9.0	7	11	2.1	1.2	4.7	26
Mediomastus californiensis	Polychaeta	P			5	2	2	3.0	3.5	2	5	1.7	1.0	3.9	9
Mediomastus sp(p).	Polychaeta	P			2	2	6	3.3	4.0	2	6	2.3	1.3	5.2	10
Musculista senhousia	Bivalvia	M			3	0	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Nemertea	Nemertea	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Phtisica marina	Caprellidea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			5	1	14	6.7	7.5	1	14	6.7	3.8	15.0	20
Polydora cornuta	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Praxillella sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			7	4	6	5.7	5.5	4	7	1.5	0.9	3.4	17
Pseudopolydora paucibranchiata	Polychaeta	P			9	3	1	4.3	5.0	1	9	4.2	2.4	9.4	13
Scoletoma sp. A	Polychaeta	P			6	5	4	5.0	5.0	4	6	1.0	0.6	2.3	15
Scoletoma sp. C	Polychaeta	P			14	14	11	13.0	12.5	11	14	1.7	1.0	3.9	39
Scoletoma tetraura	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Solen rostriformis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			5	1	6	4.0	3.5	1	6	2.6	1.5	6.0	12
Theora lubrica	Bivalvia	M			21	12	26	19.7	19.0	12	26	7.1	4.1	16.0	59
Total Fauna				**34**	**111**	**80**	**112**	**101.0**	**96.0**	**80**	**112**	**18.2**	**10.5**	**40.9**	**303**
Total Polychaetes				**21**	**83**	**63**	**78**	**74.7**	**73.0**	**63**	**83**	**10.4**	**6.0**	**23.4**	**224**
Total Molluscs				**4**	**25**	**12**	**29**	**22.0**	**20.5**	**12**	**29**	**8.9**	**5.1**	**20.0**	**66**
Total Crustaceans				**6**	**3**	**2**	**3**	**2.7**	**2.5**	**2**	**3**	**0.6**	**0.3**	**1.3**	**8**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**0**	**1**	**2**	**1.0**	**1.0**	**0**	**2**	**1.0**	**0.6**	**2.3**	**3**
heterophoxus				**1**	**1**	**0**	**1**	**0.7**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**2**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**34**	**21**	**21**	**23**	**21.7**	**22.0**	**21**	**23**	**1.2**	**0.7**	**2.6**	**65**
stat BST03															
Americhelidium micropleon	Amphipoda	C			3	1	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Ampelisca cristata	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Aphelochaeta sp(p).	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Asteropella slatteryi	Ostracoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Asthaenothaerus diegensis	Bivalvia	M			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Cirratilidae sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Diplocirrus sp. SD1	Polychaeta	P			6	22	12	13.3	14.0	6	22	8.1	4.7	18.2	40
Dorvillea sp(p).	Polychaeta	P			5	1	0	2.0	2.5	0	5	2.6	1.5	6.0	6
Eteone sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	5	2	2.3	2.5	0	5	2.5	1.5	5.7	7
Euphilomedes carcharodonta	Ostracoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			1	2	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Fabricinuda limnicola	Polychaeta	P			0	2	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Glycera americana	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Harmothoe imbricata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		4	0	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Leitoscoloplos pugettensis	Polychaeta	P			3	9	5	5.7	6.0	3	9	3.1	1.8	6.9	17
Listriella melanica	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Lyonsia californica	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			8	2	9	6.3	5.5	2	9	3.8	2.2	8.5	19
Mediomastus sp(p).	Polychaeta	P			2	2	13	5.7	7.5	2	13	6.4	3.7	14.3	17

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Melinna oculata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			3	4	0	2.3	2.0	0	4	2.1	1.2	4.7	7
Nemertea	Nemertea	O			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys cornuta	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Phtisica marina	Caprellidea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Pista disjuncta	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			4	3	16	7.7	9.5	3	16	7.2	4.2	16.3	23
Pseudopolydora paucibranchiata	Polychaeta	P			51	22	5	26.0	28.0	5	51	23.3	13.4	52.3	78
Pyromaia tuberculata	Decapoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			2	0	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Scoletoma sp. A	Polychaeta	P			6	10	12	9.3	9.0	6	12	3.1	1.8	6.9	28
Scoletoma sp. C	Polychaeta	P			9	7	6	7.3	7.5	6	9	1.5	0.9	3.4	22
Scyphoproctus oculatus	Polychaeta	P			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Spiophanes duplex	Polychaeta	P			9	13	9	10.3	11.0	9	13	2.3	1.3	5.2	31
Tagelus subteres	Bivalvia	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Theora lubrica	Bivalvia	M			1	8	7	5.3	4.5	1	8	3.8	2.2	8.5	16
Vargula americana	Ostracoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Total Fauna				**45**	**126**	**123**	**118**	**122.3**	**122.0**	**118**	**126**	**4.0**	**2.3**	**9.1**	**367**
Total Polychaetes				**24**	**109**	**102**	**100**	**103.7**	**104.5**	**100**	**109**	**4.7**	**2.7**	**10.6**	**311**
Total Molluscs				**5**	**4**	**13**	**10**	**9.0**	**8.5**	**4**	**13**	**4.6**	**2.6**	**10.3**	**27**
Total Crustaceans				**14**	**13**	**8**	**5**	**8.7**	**9.0**	**5**	**13**	**4.0**	**2.3**	**9.1**	**26**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**4**	**0**	**0**	**1.3**	**2.0**	**0**	**4**	**2.3**	**1.3**	**5.2**	**4**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**45**	**24**	**25**	**28**	**25.7**	**26.0**	**24**	**28**	**2.1**	**1.2**	**4.7**	**77**
stat BST04															
Amphideutopus oculatus	Amphipoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Apoprionospio pygmaea	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asteropella slatteryi	Ostracoda	C			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Cirratilidae sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Diopatra splendidissima	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Dorvillea sp(p).	Polychaeta	P			0	6	4	3.3	3.0	0	6	3.1	1.8	6.9	10
Eteone aestuarina	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Exogone lourei	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Fabricinuda limnicola	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Heterophoxus affinis	Amphipoda	C	h		1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			2	6	0	2.7	3.0	0	6	3.1	1.8	6.9	8
Leptochelia dubia	Tanaidacea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus sp(p).	Polychaeta	P			6	4	7	5.7	5.5	4	7	1.5	0.9	3.4	17
Monticellina cryptica	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			3	1	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Mytilus sp.	Bivalvia	M			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			3	0	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Pista sp(p).	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Prionospio heterobranchia	Polychaeta	P			5	10	10	8.3	7.5	5	10	2.9	1.7	6.5	25
Pseudopolydora paucibranchiata	Polychaeta	P			19	12	6	12.3	12.5	6	19	6.5	3.8	14.6	37
Rudilemboides stenopropodus	Amphipoda	C			0	5	0	1.7	2.5	0	5	2.9	1.7	6.5	5

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Scoletoma sp. A	Polychaeta	P			2	6	1	3.0	3.5	1	6	2.6	1.5	6.0	9
Scoletoma sp. C	Polychaeta	P			7	11	11	9.7	9.0	7	11	2.3	1.3	5.2	29
Spiophanes duplex	Polychaeta	P			1	14	0	5.0	7.0	0	14	7.8	4.5	17.6	15
Theora lubrica	Bivalvia	M			4	1	0	1.7	2.0	0	4	2.1	1.2	4.7	5
Total Fauna				**31**	**66**	**87**	**47**	**66.7**	**67.0**	**47**	**87**	**20.0**	**11.6**	**45.0**	**200**
Total Polychaetes				**19**	**51**	**74**	**42**	**55.7**	**58.0**	**42**	**74**	**16.5**	**9.5**	**37.1**	**167**
Total Molluscs				**3**	**8**	**3**	**0**	**3.7**	**4.0**	**0**	**8**	**4.0**	**2.3**	**9.1**	**11**
Total Crustaceans				**7**	**7**	**10**	**3**	**6.7**	**6.5**	**3**	**10**	**3.5**	**2.0**	**7.9**	**20**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**1**	**1**	**0**	**0.7**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**2**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**31**	**23**	**21**	**12**	**18.7**	**17.5**	**12**	**23**	**5.9**	**3.4**	**13.2**	**56**
stat BST05															
Actinaria	Cnidaria	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Alpheus californiensis	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Aphrodita sp(p).	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Cossura sp. A	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			17	18	2	12.3	10.0	2	18	9.0	5.2	20.2	37
Dorvillea sp(p).	Polychaeta	P			3	0	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Eteone aestuarina	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	1	3	1.3	1.5	0	3	1.5	0.9	3.4	4
Heterophoxus affinis	Amphipoda	C	h		1	4	1	2.0	2.5	1	4	1.7	1.0	3.9	6
Heteroserolis carinata	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			5	1	6	4.0	3.5	1	6	2.6	1.5	6.0	12
Listriella melanica	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Mediomastus californiensis	Polychaeta	P			1	3	1	1.7	2.0	1	3	1.2	0.7	2.6	5
Mediomastus sp(p).	Polychaeta	P			0	6	5	3.7	3.0	0	6	3.2	1.9	7.2	11
Musculista senhousia	Bivalvia	M			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Nephtys cornuta	Polychaeta	P			2	1	2	1.7	1.5	1	2	0.6	0.3	1.3	5
Pista agassizi	Polychaeta	P			1	8	6	5.0	4.5	1	8	3.6	2.1	8.1	15
Praxillella sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			4	3	2	3.0	3.0	2	4	1.0	0.6	2.3	9
Pseudopolydora paucibranchiata	Polychaeta	P			3	23	16	14.0	13.0	3	23	10.1	5.9	22.8	42
Rudilemboides stenopropodus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			8	3	7	6.0	5.5	3	8	2.6	1.5	6.0	18
Scoletoma sp. C	Polychaeta	P			5	10	11	8.7	8.0	5	11	3.2	1.9	7.2	26
Spiophanes duplex	Polychaeta	P			3	5	3	3.7	4.0	3	5	1.2	0.7	2.6	11
Theora lubrica	Bivalvia	M			10	16	10	12.0	13.0	10	16	3.5	2.0	7.8	36
Total Fauna				**27**	**66**	**110**	**80**	**85.3**	**88.0**	**66**	**110**	**22.5**	**13.0**	**50.6**	**256**
Total Polychaetes				**17**	**53**	**85**	**66**	**68.0**	**69.0**	**53**	**85**	**16.1**	**9.3**	**36.2**	**204**
Total Molluscs				**2**	**10**	**16**	**12**	**12.7**	**13.0**	**10**	**16**	**3.1**	**1.8**	**6.9**	**38**
Total Crustaceans				**7**	**2**	**9**	**2**	**4.3**	**5.5**	**2**	**9**	**4.0**	**2.3**	**9.1**	**13**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**1**	**4**	**1**	**2.0**	**2.5**	**1**	**4**	**1.7**	**1.0**	**3.9**	**6**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**27**	**16**	**20**	**18**	**18.0**	**18.0**	**16**	**20**	**2.0**	**1.2**	**4.5**	**54**
stat BST06															
Actinaria	Cnidaria	O			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Alpheus californiensis	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Americhelidium micropleon	Amphipoda	C			4	1	0	1.7	2.0	0	4	2.1	1.2	4.7	5
Amphideutopus oculatus	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Amphipholis squamata	Ophiuriodia	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Apoprionospio pygmaea	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Asteropella slatteryi	Ostracoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Asthaenothaerus diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chone sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Diplocirrus sp. SD1	Polychaeta	P			4	12	3	6.3	7.5	3	12	4.9	2.8	11.1	19
Dorvillea sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Eteone aestuarina	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			2	2	5	3.0	3.5	2	5	1.7	1.0	3.9	9
Glycinde sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		6	0	0	2.0	3.0	0	6	3.5	2.0	7.8	6
Heteroserolis carinata	Isopoda	C			0	1	4	1.7	2.0	0	4	2.1	1.2	4.7	5
Leitoscoloplos pugettensis	Polychaeta	P			2	2	4	2.7	3.0	2	4	1.2	0.7	2.6	8
Lyonsia californica	Bivalvia	M			3	1	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Mediomastus californiensis	Polychaeta	P			7	2	6	5.0	4.5	2	7	2.6	1.5	6.0	15
Mediomastus sp(p).	Polychaeta	P			5	1	7	4.3	4.0	1	7	3.1	1.8	6.9	13
Microspio pigmentata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys caecoides	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys cornuta	Polychaeta	P			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Nereis procera	Polychaeta	P			0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Philine sp.	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Pista agassizi	Polychaeta	P			4	5	8	5.7	6.0	4	8	2.1	1.2	4.7	17
Prionospio heterobranchia	Polychaeta	P			1	3	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Pseudopolydora paucibranchiata	Polychaeta	P			1	1	4	2.0	2.5	1	4	1.7	1.0	3.9	6
Rhynchospio cf. glutaea	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Scoletoma sp. A	Polychaeta	P			6	11	2	6.3	6.5	2	11	4.5	2.6	10.1	19
Scoletoma sp. C	Polychaeta	P			4	7	5	5.3	5.5	4	7	1.5	0.9	3.4	16
Spiophanes duplex	Polychaeta	P			1	3	2	2.0	2.0	1	3	1.0	0.6	2.3	6
Theora lubrica	Bivalvia	M			7	5	2	4.7	4.5	2	7	2.5	1.5	5.7	14
Total Fauna				**39**	**68**	**68**	**64**	**66.7**	**66.0**	**64**	**68**	**2.3**	**1.3**	**5.2**	**200**
Total Polychaetes				**22**	**40**	**55**	**52**	**49.0**	**47.5**	**40**	**55**	**7.9**	**4.6**	**17.9**	**147**
Total Molluscs				**3**	**11**	**6**	**2**	**6.3**	**6.5**	**2**	**11**	**4.5**	**2.6**	**10.1**	**19**
Total Crustaceans				**10**	**14**	**6**	**8**	**9.3**	**10.0**	**6**	**14**	**4.2**	**2.4**	**9.4**	**28**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**6**	**0**	**0**	**2.0**	**3.0**	**0**	**6**	**3.5**	**2.0**	**7.8**	**6**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**39**	**23**	**24**	**22**	**23.0**	**23.0**	**22**	**24**	**1.0**	**0.6**	**2.3**	**69**
stat BST07															
Alpheus californiensis	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Americhelidium micropleon	Amphipoda	C			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Asteropella slatteryi	Ostracoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Capitella capitata	Polychaeta	P	c		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chone sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Diopatra splendidissima	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			2	16	9	9.0	9.0	2	16	7.0	4.0	15.8	27
Dorvillea sp(p).	Polychaeta	P			0	6	18	8.0	9.0	0	18	9.2	5.3	20.6	24
Euchone limnicola	Polychaeta	P			0	2	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Exogone lourei	Polychaeta	P			0	2	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Harmothoe imbricata	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Harmothoe sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Hartmanodes hartmanae	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Heterophoxus affinis	Amphipoda	C	h		0	7	0	2.3	3.5	0	7	4.0	2.3	9.1	7
Leitoscoloplos pugettensis	Polychaeta	P			0	14	15	9.7	7.5	0	15	8.4	4.8	18.9	29
Mayerella banksia	Caprellidea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			4	6	6	5.3	5.0	4	6	1.2	0.7	2.6	16
Mediomastus sp(p).	Polychaeta	P			4	9	8	7.0	6.5	4	9	2.6	1.5	6.0	21
Microspio pigmentata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Monticellina sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			0	15	9	8.0	7.5	0	15	7.5	4.4	17.0	24
Nemertea	Nemertea	O			0	2	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Odontosyllis phosphorea	Polychaeta	P			0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Philine sp.	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			1	6	8	5.0	4.5	1	8	3.6	2.1	8.1	15
Pista sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			0	6	15	7.0	7.5	0	15	7.5	4.4	17.0	21
Pseudopolydora paucibranchiata	Polychaeta	P			0	28	96	41.3	48.0	0	96	49.4	28.5	111.1	124
Rudilemboides stenopropodus	Amphipoda	C			0	4	3	2.3	2.0	0	4	2.1	1.2	4.7	7
Scoletoma sp. A	Polychaeta	P			6	7	9	7.3	7.5	6	9	1.5	0.9	3.4	22
Scoletoma sp. C	Polychaeta	P			3	18	13	11.3	10.5	3	18	7.6	4.4	17.2	34
Scoletoma tetraura	Polychaeta	P			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Solen rostriformis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			2	10	7	6.3	6.0	2	10	4.0	2.3	9.1	19
Theora lubrica	Bivalvia	M			0	0	7	2.3	3.5	0	7	4.0	2.3	9.1	7
Total Fauna				**39**	**23**	**169**	**246**	**146.0**	**134.5**	**23**	**246**	**113.3**	**65.4**	**254.8**	**438**
Total Polychaetes				**23**	**23**	**139**	**212**	**124.7**	**117.5**	**23**	**212**	**95.3**	**55.0**	**214.5**	**374**
Total Molluscs				**5**	**0**	**15**	**21**	**12.0**	**10.5**	**0**	**21**	**10.8**	**6.2**	**24.3**	**36**
Total Crustaceans				**9**	**0**	**13**	**11**	**8.0**	**6.5**	**0**	**13**	**7.0**	**4.0**	**15.8**	**24**
capitellids				**1**	**0**	**1**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**0**	**7**	**0**	**2.3**	**3.5**	**0**	**7**	**4.0**	**2.3**	**9.1**	**7**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**39**	**8**	**25**	**31**	**21.3**	**19.5**	**8**	**31**	**11.9**	**6.9**	**26.8**	**64**
stat BST08															
Americhelidium micropleon	Amphipoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Amphideutopus oculatus	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Asteropella slatteryi	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Chaetozone corona	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Cossura sp. A	Polychaeta	P			1	1	3	1.7	2.0	1	3	1.2	0.7	2.6	5
Cylindroleberididae	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			18	27	15	20.0	21.0	15	27	6.2	3.6	14.1	60
Dorvillea sp(p).	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Euchone limnicola	Polychaeta	P			8	1	0	3.0	4.0	0	8	4.4	2.5	9.8	9
Euphilomedes carcharodonta	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		3	2	2	2.3	2.5	2	3	0.6	0.3	1.3	7
Leitoscoloplos pugettensis	Polychaeta	P			14	8	21	14.3	14.5	8	21	6.5	3.8	14.6	43
Lyonsia californica	Bivalvia	M			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Mediomastus californiensis	Polychaeta	P			3	3	3	3.0	3.0	3	3	0.0	0.0	0.0	9
Mediomastus sp(p).	Polychaeta	P			10	7	6	7.7	8.0	6	10	2.1	1.2	4.7	23
Microspio pigmentata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys cornuta	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Pista agassizi	Polychaeta	P			2	6	5	4.3	4.0	2	6	2.1	1.2	4.7	13
Pista sp(p).	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Prionospio heterobranchia	Polychaeta	P			12	11	7	10.0	9.5	7	12	2.6	1.5	6.0	30
Pseudopolydora paucibranchiata	Polychaeta	P			21	19	27	22.3	23.0	19	27	4.2	2.4	9.4	67
Rudilemboides stenopropodus	Amphipoda	C			6	0	2	2.7	3.0	0	6	3.1	1.8	6.9	8
Scoletoma sp. A	Polychaeta	P			8	6	9	7.7	7.5	6	9	1.5	0.9	3.4	23
Scoletoma sp. C	Polychaeta	P			12	7	10	9.7	9.5	7	12	2.5	1.5	5.7	29
Spiophanes duplex	Polychaeta	P			11	9	11	10.3	10.0	9	11	1.2	0.7	2.6	31
Theora lubrica	Bivalvia	M			10	14	16	13.3	13.0	10	16	3.1	1.8	6.9	40
Total Fauna				**31**	**151**	**125**	**144**	**140.0**	**138.0**	**125**	**151**	**13.5**	**7.8**	**30.3**	**420**
Total Polychaetes				**18**	**125**	**106**	**120**	**117.0**	**115.5**	**106**	**125**	**9.8**	**5.7**	**22.2**	**351**
Total Molluscs				**4**	**14**	**15**	**16**	**15.0**	**15.0**	**14**	**16**	**1.0**	**0.6**	**2.3**	**45**
Total Crustaceans				**8**	**11**	**4**	**8**	**7.7**	**7.5**	**4**	**11**	**3.5**	**2.0**	**7.9**	**23**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**3**	**2**	**2**	**2.3**	**2.5**	**2**	**3**	**0.6**	**0.3**	**1.3**	**7**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**31**	**24**	**17**	**20**	**20.3**	**20.5**	**17**	**24**	**3.5**	**2.0**	**7.9**	**61**
stat BST09															
Americhelidium micropleon	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Ampelisca cristata	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Apoprionospio pygmaea	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Asteropella slatteryi	Ostracoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Cylindroleberididae	Ostracoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Diopatra splendidissima	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			6	5	3	4.7	4.5	3	6	1.5	0.9	3.4	14
Dorvillea sp(p).	Polychaeta	P			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Euphilomedes carcharodonta	Ostracoda	C			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Exogone lourei	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Harmothoe imbricata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		1	2	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Leitoscoloplos pugettensis	Polychaeta	P			2	7	2	3.7	4.5	2	7	2.9	1.7	6.5	11
Lyonsia californica	Bivalvia	M			3	1	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Mediomastus californiensis	Polychaeta	P			1	12	4	5.7	6.5	1	12	5.7	3.3	12.8	17
Mediomastus sp(p).	Polychaeta	P			2	11	2	5.0	6.5	2	11	5.2	3.0	11.7	15
Microspio pigmentata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Nephtys cornuta	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			5	1	2	2.7	3.0	1	5	2.1	1.2	4.7	8
Pista agassizi	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Prionospio heterobranchia	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Pseudopolydora paucibranchiata	Polychaeta	P			4	2	0	2.0	2.0	0	4	2.0	1.2	4.5	6
Scoletoma sp. A	Polychaeta	P			6	8	7	7.0	7.0	6	8	1.0	0.6	2.3	21
Scoletoma sp. C	Polychaeta	P			10	7	8	8.3	8.5	7	10	1.5	0.9	3.4	25
Scyphoproctus oculatus	Polychaeta	P			1	3	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Spiophanes duplex	Polychaeta	P			2	5	1	2.7	3.0	1	5	2.1	1.2	4.7	8
Theora lubrica	Bivalvia	M			3	2	2	2.3	2.5	2	3	0.6	0.3	1.3	7
Total Fauna				**31**	**65**	**74**	**36**	**58.3**	**55.0**	**36**	**74**	**19.9**	**11.5**	**44.7**	**175**
Total Polychaetes				**18**	**45**	**65**	**27**	**45.7**	**46.0**	**27**	**65**	**19.0**	**11.0**	**42.8**	**137**
Total Molluscs				**3**	**7**	**3**	**2**	**4.0**	**4.5**	**2**	**7**	**2.6**	**1.5**	**6.0**	**12**
Total Crustaceans				**8**	**12**	**5**	**6**	**7.7**	**8.5**	**5**	**12**	**3.8**	**2.2**	**8.5**	**23**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**1**	**2**	**1**	**1.3**	**1.5**	**1**	**2**	**0.6**	**0.3**	**1.3**	**4**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**31**	**28**	**19**	**13**	**20.0**	**20.5**	**13**	**28**	**7.5**	**4.4**	**17.0**	**60**

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
stat BST10															
Amphideutopus oculatus	Amphipoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Asteropella slatteryi	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cryptomya californica	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			11	12	20	14.3	15.5	11	20	4.9	2.8	11.1	43
Euchone limnicola	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Euphilomedes carcharodonta	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Glycera americana	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		3	3	1	2.3	2.0	1	3	1.2	0.7	2.6	7
Heteroserolis carinata	Isopoda	C			4	0	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Leitoscoloplos pugettensis	Polychaeta	P			1	8	4	4.3	4.5	1	8	3.5	2.0	7.9	13
Listriella melanica	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mayerella banksia	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Mediomastus sp(p).	Polychaeta	P			1	8	1	3.3	4.5	1	8	4.0	2.3	9.1	10
Monocorophium sp.	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Neotrypaea californiensis	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nephtys cornuta	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Phtisica marina	Caprellidea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			1	0	4	1.7	2.0	0	4	2.1	1.2	4.7	5
Pseudopolydora paucibranchiata	Polychaeta	P			2	0	6	2.7	3.0	0	6	3.1	1.8	6.9	8
Pyromaia tuberculata	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scolelepis sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			3	6	6	5.0	4.5	3	6	1.7	1.0	3.9	15
Scoletoma sp. C	Polychaeta	P			8	5	7	6.7	6.5	5	8	1.5	0.9	3.4	20
Sinelobus stanfordi	Tanaidacea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			4	1	2	2.3	2.5	1	4	1.5	0.9	3.4	7
Theora lubrica	Bivalvia	M			6	2	10	6.0	6.0	2	10	4.0	2.3	9.0	18
Total Fauna				**31**	**51**	**56**	**68**	**58.3**	**59.5**	**51**	**68**	**8.7**	**5.0**	**19.7**	**175**
Total Polychaetes				**14**	**34**	**42**	**55**	**43.7**	**44.5**	**34**	**55**	**10.6**	**6.1**	**23.8**	**131**
Total Molluscs				**2**	**7**	**2**	**10**	**6.3**	**6.0**	**2**	**10**	**4.0**	**2.3**	**9.1**	**19**
Total Crustaceans				**14**	**10**	**11**	**3**	**8.0**	**7.0**	**3**	**11**	**4.4**	**2.5**	**9.8**	**24**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**3**	**3**	**1**	**2.3**	**2.0**	**1**	**3**	**1.2**	**0.7**	**2.6**	**7**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**31**	**18**	**19**	**16**	**17.7**	**17.5**	**16**	**19**	**1.5**	**0.9**	**3.4**	**53**
stat BST11															
Ampelisca agassizi	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Ampelisca cristata	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Amphideutopus oculatus	Amphipoda	C			1	12	3	5.3	6.5	1	12	5.9	3.4	13.2	16
Anoplodactylus erectus	Pychnogonida	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Aruga holmesi	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asteropella slatteryi	Ostracoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Asthaenothaerus diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Betaeus ensenadensis	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			17	18	14	16.3	16.0	14	18	2.1	1.2	4.7	49
Euchone limnicola	Polychaeta	P			0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Fabricinuda limnicola	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		2	1	10	4.3	5.5	1	10	4.9	2.8	11.1	13
Heteroserolis carinata	Isopoda	C			2	0	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Heteroserolis carinata	Isopoda	C			8	0	2	3.3	4.0	0	8	4.2	2.4	9.4	10
Leitoscoloplos pugettensis	Polychaeta	P			5	3	3	3.7	4.0	3	5	1.2	0.7	2.6	11

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Listriella melanica	Amphipoda	C			0	0	4	1.3	2.0	0	4	2.3	1.3	5.2	4
Lyonsia californica	Bivalvia	M			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Mediomastus californiensis	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Mediomastus sp(p).	Polychaeta	P			0	8	4	4.0	4.0	0	8	4.0	2.3	9.0	12
Microspio pigmentata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Neotrypaea californiensis	Decapoda	C			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Nephtys cornuta	Polychaeta	P			1	3	3	2.3	2.0	1	3	1.2	0.7	2.6	7
Pinnixa barnardi	Decapoda	C			0	0	8	2.7	4.0	0	8	4.6	2.7	10.4	8
Pista agassizi	Polychaeta	P			4	1	3	2.7	2.5	1	4	1.5	0.9	3.4	8
Polycladida	Platyhelmenthes	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Pseudopolydora paucibranchiata	Polychaeta	P			1	2	5	2.7	3.0	1	5	2.1	1.2	4.7	8
Pyromaia tuberculata	Decapoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			0	7	3	3.3	3.5	0	7	3.5	2.0	7.9	10
Scoletoma sp. A	Polychaeta	P			11	4	6	7.0	7.5	4	11	3.6	2.1	8.1	21
Scoletoma sp. C	Polychaeta	P			8	5	13	8.7	9.0	5	13	4.0	2.3	9.1	26
Spiophanes duplex	Polychaeta	P			4	2	3	3.0	3.0	2	4	1.0	0.6	2.3	9
Theora lubrica	Bivalvia	M			12	7	15	11.3	11.0	7	15	4.0	2.3	9.1	34
Total Fauna				**35**	**81**	**83**	**114**	**92.7**	**97.5**	**81**	**114**	**18.5**	**10.7**	**41.6**	**278**
Total Polychaetes				**15**	**51**	**52**	**59**	**54.0**	**55.0**	**51**	**59**	**4.4**	**2.5**	**9.8**	**162**
Total Molluscs				**3**	**14**	**7**	**17**	**12.7**	**12.0**	**7**	**17**	**5.1**	**3.0**	**11.5**	**38**
Total Crustaceans				**15**	**16**	**23**	**37**	**25.3**	**26.5**	**16**	**37**	**10.7**	**6.2**	**24.1**	**76**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**2**	**1**	**10**	**4.3**	**5.5**	**1**	**10**	**4.9**	**2.8**	**11.1**	**13**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**35**	**18**	**20**	**27**	**21.7**	**22.5**	**18**	**27**	**4.7**	**2.7**	**10.6**	**65**
stat BST12															
Amphideutopus oculatus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Aruga holmesi	Amphipoda	C			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Asteropella slatteryi	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Betaeus ensenadensis	Decapoda	C			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Crepipatella dorsata	Gastropoda	M			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Cryptomya californica	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cryptomya californica	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			3	2	1	2.0	2.0	1	3	1.0	0.6	2.3	6
Diplocirrus sp. SD1	Polychaeta	P			1	13	13	9.0	7.0	1	13	6.9	4.0	15.6	27
Dorvillea sp(p).	Polychaeta	P			0	1	4	1.7	2.0	0	4	2.1	1.2	4.7	5
Edwardsiid	Cnidaria	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			2	0	3	1.7	1.5	0	3	1.5	0.9	3.4	5
Heterophoxus affinis	Amphipoda	C	h		4	0	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Heteroserolis carinata	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteroserolis carinata	Isopoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			4	8	4	5.3	6.0	4	8	2.3	1.3	5.2	16
Listriella melanica	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Listriella melanica	Amphipoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Lyonsia californica	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mactromeris hemphillii	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			1	1	3	1.7	2.0	1	3	1.2	0.7	2.6	5
Mediomastus sp(p).	Polychaeta	P			3	0	4	2.3	2.0	0	4	2.1	1.2	4.7	7
Nemertea	Nemertea	O			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Neotrypaea californiensis	Decapoda	C			0	4	2	2.0	2.0	0	4	2.0	1.2	4.5	6
Nephtys cornuta	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Pinnixa barnardi	Decapoda	C			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Pista agassizi	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Prionospio heterobranchia	Polychaeta	P			1	1	4	2.0	2.5	1	4	1.7	1.0	3.9	6

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Pseudopolydora paucibranchiata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			1	6	4	3.7	3.5	1	6	2.5	1.5	5.7	11
Scoletoma sp. C	Polychaeta	P			5	12	10	9.0	8.5	5	12	3.6	2.1	8.1	27
Spiophanes berkeleyorum	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			0	3	17	6.7	8.5	0	17	9.1	5.2	20.4	20
Theora lubrica	Bivalvia	M			13	9	6	9.3	9.5	6	13	3.5	2.0	7.9	28
Total Fauna				**35**	**49**	**66**	**90**	**68.3**	**69.5**	**49**	**90**	**20.6**	**11.9**	**46.3**	**205**
Total Polychaetes				**15**	**19**	**47**	**70**	**45.3**	**44.5**	**19**	**70**	**25.5**	**14.7**	**57.5**	**136**
Total Molluscs				**6**	**17**	**9**	**8**	**11.3**	**12.5**	**8**	**17**	**4.9**	**2.8**	**11.1**	**34**
Total Crustaceans				**12**	**11**	**9**	**11**	**10.3**	**10.0**	**9**	**11**	**1.2**	**0.7**	**2.6**	**31**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**4**	**0**	**0**	**1.3**	**2.0**	**0**	**4**	**2.3**	**1.3**	**5.2**	**4**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**35**	**20**	**17**	**23**	**20.0**	**20.0**	**17**	**23**	**3.0**	**1.7**	**6.8**	**60**
stat DAC01															
Acteocina inculata	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Alpheus californiensis	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Americhelidium micropleon	Amphipoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Campylaspis rubromaculata	Cumacea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cirratilidae sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura pygodactylata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			2	3	3	2.7	2.5	2	3	0.6	0.3	1.3	8
Diplocirrus sp. SD1	Polychaeta	P			3	6	3	4.0	4.5	3	6	1.7	1.0	3.9	12
Dorvillea sp(p).	Polychaeta	P			5	0	0	1.7	2.5	0	5	2.9	1.7	6.5	5
Euphilomedes carcharodonta	Ostracoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Exogone lourei	Polychaeta	P			0	2	6	2.7	3.0	0	6	3.1	1.8	6.9	8
Harmothoe imbricata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			4	7	9	6.7	6.5	4	9	2.5	1.5	5.7	20
Mediomastus sp(p).	Polychaeta	P			7	3	4	4.7	5.0	3	7	2.1	1.2	4.7	14
Monticellina sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			4	5	6	5.0	5.0	4	6	1.0	0.6	2.3	15
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Polydora cornuta	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Prionospio heterobranchia	Polychaeta	P			2	2	6	3.3	4.0	2	6	2.3	1.3	5.2	10
Pseudopolydora paucibranchiata	Polychaeta	P			0	23	10	11.0	11.5	0	23	11.5	6.7	25.9	33
Rudilemboides stenopropodus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Scoletoma sp. C	Polychaeta	P			9	12	19	13.3	14.0	9	19	5.1	3.0	11.5	40
Theora lubrica	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Typosyllis nipponica	Polychaeta	P			4	1	2	2.3	2.5	1	4	1.5	0.9	3.4	7
Total Fauna				**26**	**51**	**67**	**75**	**64.3**	**63.0**	**51**	**75**	**12.2**	**7.1**	**27.5**	**193**
Total Polychaetes				**16**	**40**	**60**	**66**	**55.3**	**53.0**	**40**	**66**	**13.6**	**7.9**	**30.6**	**166**
Total Molluscs				**3**	**6**	**5**	**6**	**5.7**	**5.5**	**5**	**6**	**0.6**	**0.3**	**1.3**	**17**
Total Crustaceans				**6**	**5**	**2**	**2**	**3.0**	**3.5**	**2**	**5**	**1.7**	**1.0**	**3.9**	**9**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**26**	**18**	**13**	**16**	**15.7**	**15.5**	**13**	**18**	**2.5**	**1.5**	**5.7**	**47**
stat DAC02															
Acteocina inculata	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Americhelidium micropleon	Amphipoda	C			0	2	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Brania mediodentata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Cossura pygodactylata	Polychaeta	P			4	0	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Cossura sp. A	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Cylindroleberididae	Ostracoda	C			0	3	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Diplocirrus sp. SD1	Polychaeta	P			8	3	3	4.7	5.5	3	8	2.9	1.7	6.5	14
Dorvillea sp(p).	Polychaeta	P			1	14	0	5.0	7.0	0	14	7.8	4.5	17.6	15
Eteone aestuarina	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			12	14	9	11.7	11.5	9	14	2.5	1.5	5.7	35
Glycera americana	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			6	6	3	5.0	4.5	3	6	1.7	1.0	3.9	15
Listriella melanica	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus sp(p).	Polychaeta	P			4	2	0	2.0	2.0	0	4	2.0	1.2	4.5	6
Musculista senhousia	Bivalvia	M			13	15	4	10.7	9.5	4	15	5.9	3.4	13.2	32
Odontosyllis phosphorea	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Philine sp.	Bivalvia	M			3	0	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Pista agassizi	Polychaeta	P			3	3	0	2.0	1.5	0	3	1.7	1.0	3.9	6
Platynereis bicanaliculata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			14	27	6	15.7	16.5	6	27	10.6	6.1	23.8	47
Pseudopolydora paucibranchiata	Polychaeta	P			14	32	3	16.3	17.5	3	32	14.6	8.5	32.9	49
Scoletoma sp. A	Polychaeta	P			7	2	6	5.0	4.5	2	7	2.6	1.5	6.0	15
Scoletoma sp. C	Polychaeta	P			16	20	9	15.0	14.5	9	20	5.6	3.2	12.5	45
Scoletoma tetraura	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Spiophanes duplex	Polychaeta	P			2	3	1	2.0	2.0	1	3	1.0	0.6	2.3	6
Theora lubrica	Bivalvia	M			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Typosyllis nipponica	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Total Fauna				**30**	**115**	**155**	**48**	**106.0**	**101.5**	**48**	**155**	**54.1**	**31.2**	**121.6**	**318**
Total Polychaetes				**21**	**96**	**132**	**42**	**90.0**	**87.0**	**42**	**132**	**45.3**	**26.2**	**101.9**	**270**
Total Molluscs				**4**	**18**	**16**	**4**	**12.7**	**11.0**	**4**	**18**	**7.6**	**4.4**	**17.0**	**38**
Total Crustaceans				**5**	**1**	**7**	**2**	**3.3**	**4.0**	**1**	**7**	**3.2**	**1.9**	**7.2**	**10**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**30**	**21**	**22**	**13**	**18.7**	**17.5**	**13**	**22**	**4.9**	**2.8**	**11.1**	**56**
stat DAC03															
Alpheus californiensis	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura pygodactylata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			2	5	1	2.7	3.0	1	5	2.1	1.2	4.7	8
Diplocirrus sp. SD1	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Dorvillea sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			3	2	0	1.7	1.5	0	3	1.5	0.9	3.4	5
Euphilomedes carcharodonta	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Glycera americana	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			1	5	2	2.7	3.0	1	5	2.1	1.2	4.7	8
Mediomastus californiensis	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus sp(p).	Polychaeta	P			0	5	0	1.7	2.5	0	5	2.9	1.7	6.5	5
Musculista senhousia	Bivalvia	M			0	1	14	5.0	7.0	0	14	7.8	4.5	17.6	15
oligochaeta	Oligochaeta	O	o		2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Pinnixa barnardi	Decapoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Prionospio heterobranchia	Polychaeta	P			14	7	0	7.0	7.0	0	14	7.0	4.0	15.8	21
Pseudopolydora paucibranchiata	Polychaeta	P			12	5	2	6.3	7.0	2	12	5.1	3.0	11.5	19
Pyromaia tuberculata	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Scoletoma sp. A	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Scoletoma sp. C	Polychaeta	P			20	18	14	17.3	17.0	14	20	3.1	1.8	6.9	52
Scoletoma tetraura	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Theora lubrica	Bivalvia	M			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Total Fauna				**26**	**63**	**56**	**40**	**53.0**	**51.5**	**40**	**63**	**11.8**	**6.8**	**26.5**	**159**
Total Polychaetes				**16**	**57**	**53**	**22**	**44.0**	**39.5**	**22**	**57**	**19.2**	**11.1**	**43.1**	**132**
Total Molluscs				**3**	**1**	**1**	**16**	**6.0**	**8.5**	**1**	**16**	**8.7**	**5.0**	**19.5**	**18**
Total Crustaceans				**6**	**3**	**1**	**2**	**2.0**	**2.0**	**1**	**3**	**1.0**	**0.6**	**2.3**	**6**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**2**	**1**	**0**	**1.0**	**1.0**	**0**	**2**	**1.0**	**0.6**	**2.3**	**3**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**26**	**15**	**15**	**11**	**13.7**	**13.0**	**11**	**15**	**2.3**	**1.3**	**5.2**	**41**
stat DAC04															
Americhelidium micropleon	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			1	1	3	1.7	2.0	1	3	1.2	0.7	2.6	5
Asthaenothaerus diegensis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Capitella capitata	Polychaeta	P	c		2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Cirratilidae sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura pygodactylata	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Cossura sp. A	Polychaeta	P			12	13	27	17.3	19.5	12	27	8.4	4.8	18.9	52
Cylindroleberididae	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			2	3	4	3.0	3.0	2	4	1.0	0.6	2.3	9
Dorvillea sp(p).	Polychaeta	P			1	6	2	3.0	3.5	1	6	2.6	1.5	6.0	9
Eteone aestuarina	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	7	0	2.3	3.5	0	7	4.0	2.3	9.1	7
Euphilomedes carcharodonta	Ostracoda	C			1	1	1	1.0	1.0	1	1	0.0	0.0	0.0	3
Exogone lourei	Polychaeta	P			3	10	3	5.3	6.5	3	10	4.0	2.3	9.1	16
Heteriserolis carinata	Isopoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			5	15	11	10.3	10.0	5	15	5.0	2.9	11.3	31
Mayerella banksia	Caprellidea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus sp(p).	Polychaeta	P			2	6	1	3.0	3.5	1	6	2.6	1.5	6.0	9
Musculista senhousia	Bivalvia	M			2	7	8	5.7	5.0	2	8	3.2	1.9	7.2	17
Nemertea	Nemertea	O			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
oligochaeta	Oligochaeta	O	o		3	0	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Pinnixa barnardi	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			0	2	4	2.0	2.0	0	4	2.0	1.2	4.5	6
Prionospio heterobranchia	Polychaeta	P			8	25	19	17.3	16.5	8	25	8.6	5.0	19.4	52
Pseudopolydora paucibranchiata	Polychaeta	P			13	89	44	48.7	51.0	13	89	38.2	22.1	86.0	146
Rudilemboides stenopropodus	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			7	4	1	4.0	4.0	1	7	3.0	1.7	6.8	12
Scoletoma sp. C	Polychaeta	P			14	16	21	17.0	17.5	14	21	3.6	2.1	8.1	51
Spiophanes duplex	Polychaeta	P			0	4	2	2.0	2.0	0	4	2.0	1.2	4.5	6
Theora lubrica	Bivalvia	M			9	3	8	6.7	6.0	3	9	3.2	1.9	7.2	20
Trachycardium quadrigenarium	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Total Fauna				**32**	**87**	**219**	**165**	**157.0**	**153.0**	**87**	**219**	**66.4**	**38.3**	**149.3**	**471**
Total Polychaetes				**17**	**69**	**203**	**140**	**137.3**	**136.0**	**69**	**203**	**67.0**	**38.7**	**150.8**	**412**
Total Molluscs				**4**	**11**	**10**	**18**	**13.0**	**14.0**	**10**	**18**	**4.4**	**2.5**	**9.8**	**39**
Total Crustaceans				**9**	**4**	**6**	**5**	**5.0**	**5.0**	**4**	**6**	**1.0**	**0.6**	**2.3**	**15**
capitellids				**1**	**2**	**0**	**0**	**0.7**	**1.0**	**0**	**2**	**1.2**	**0.7**	**2.6**	**2**
oligochaetes				**1**	**3**	**0**	**0**	**1.0**	**1.5**	**0**	**3**	**1.7**	**1.0**	**3.9**	**3**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**32**	**18**	**24**	**21**	**21.0**	**21.0**	**18**	**24**	**3.0**	**1.7**	**6.8**	**63**
stat DAC05															
Americhelidium micropleon	Amphipoda	C			0	1	4	1.7	2.0	0	4	2.1	1.2	4.7	5

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Amphideutopus oculatus	Amphipoda	C			6	4	2	4.0	4.0	2	6	2.0	1.2	4.5	12
Asthaenothaerus diegensis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			7	6	1	4.7	4.0	1	7	3.2	1.9	7.2	14
Dorvillea sp(p).	Polychaeta	P			5	5	1	3.7	3.0	1	5	2.3	1.3	5.2	11
Eteone aestuarina	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Eteone sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			4	7	10	7.0	7.0	4	10	3.0	1.7	6.8	21
Euclymeninae, unident.	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			2	9	2	4.3	5.5	2	9	4.0	2.3	9.1	13
Glycera americana	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Harmothoe imbricata	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			18	17	8	14.3	13.0	8	18	5.5	3.2	12.4	43
Leptochelia dubia	Tanaidacea	C			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Lyonsia californica	Bivalvia	M			3	2	1	2.0	2.0	1	3	1.0	0.6	2.3	6
Mayerella banksia	Caprellidea	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Mediomastus californiensis	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus sp(p).	Polychaeta	P			3	5	5	4.3	4.0	3	5	1.2	0.7	2.6	13
Musculista senhousia	Bivalvia	M			3	1	3	2.3	2.0	1	3	1.2	0.7	2.6	7
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Philine sp.	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pinnixa barnardi	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			2	6	3	3.7	4.0	2	6	2.1	1.2	4.7	11
Polycladida	Platyhelmenthes	O			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Prionospio heterobranchia	Polychaeta	P			9	15	17	13.7	13.0	9	17	4.2	2.4	9.4	41
Pseudopolydora paucibranchiata	Polychaeta	P			79	28	63	56.7	53.5	28	79	26.1	15.1	58.7	170
Rudilemboides stenopropodus	Amphipoda	C			4	5	4	4.3	4.5	4	5	0.6	0.3	1.3	13
Scolelepis sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			8	5	6	6.3	6.5	5	8	1.5	0.9	3.4	19
Scoletoma sp. C	Polychaeta	P			10	15	13	12.7	12.5	10	15	2.5	1.5	5.7	38
Spiophanes duplex	Polychaeta	P			4	4	0	2.7	2.0	0	4	2.3	1.3	5.2	8
Theora lubrica	Bivalvia	M			4	0	1	1.7	2.0	0	4	2.1	1.2	4.7	5
Typosyllis nipponica	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Total Fauna				**38**	**182**	**141**	**152**	**158.3**	**161.5**	**141**	**182**	**21.2**	**12.3**	**47.7**	**475**
Total Polychaetes				**21**	**154**	**126**	**133**	**137.7**	**140.0**	**126**	**154**	**14.6**	**8.4**	**32.8**	**413**
Total Molluscs				**5**	**10**	**3**	**7**	**6.7**	**6.5**	**3**	**10**	**3.5**	**2.0**	**7.9**	**20**
Total Crustaceans				**8**	**13**	**12**	**12**	**12.3**	**12.5**	**12**	**13**	**0.6**	**0.3**	**1.3**	**37**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**1**	**0**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**38**	**26**	**22**	**25**	**24.3**	**24.0**	**22**	**26**	**2.1**	**1.2**	**4.7**	**73**
stat DAC06															
Acteocina diegensis	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Anoplodactylus erectus	Pychnogonida	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Eteone aestuarina	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Euchone limnicola	Polychaeta	P			0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Exogone lourei	Polychaeta	P			1	3	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Heteriserolis carinata	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			12	11	8	10.3	10.0	8	12	2.1	1.2	4.7	31
Lyonsia californica	Bivalvia	M			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Mediomastus sp(p).	Polychaeta	P			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Musculista senhousia	Bivalvia	M			10	13	4	9.0	8.5	4	13	4.6	2.6	10.3	27
Pista agassizi	Polychaeta	P			0	3	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Pista sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			6	1	7	4.7	4.0	1	7	3.2	1.9	7.2	14
Pseudopolydora paucibranchiata	Polychaeta	P			32	16	17	21.7	24.0	16	32	9.0	5.2	20.2	65
Rudilemboides stenopropodus	Amphipoda	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Scoletoma sp. A	Polychaeta	P			2	2	2	2.0	2.0	2	2	0.0	0.0	0.0	6
Scoletoma sp. C	Polychaeta	P			15	11	18	14.7	14.5	11	18	3.5	2.0	7.9	44
Spiophanes duplex	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Theora lubrica	Bivalvia	M			5	1	0	2.0	2.5	0	5	2.6	1.5	6.0	6
Typosyllis nipponica	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Total Fauna				**22**	**96**	**66**	**65**	**75.7**	**80.5**	**65**	**96**	**17.6**	**10.2**	**39.6**	**227**
Total Polychaetes				**14**	**74**	**51**	**61**	**62.0**	**62.5**	**51**	**74**	**11.5**	**6.7**	**25.9**	**186**
Total Molluscs				**4**	**18**	**14**	**4**	**12.0**	**11.0**	**4**	**18**	**7.2**	**4.2**	**16.2**	**36**
Total Crustaceans				**4**	**4**	**1**	**0**	**1.7**	**2.0**	**0**	**4**	**2.1**	**1.2**	**4.7**	**5**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**22**	**18**	**14**	**12**	**14.7**	**15.0**	**12**	**18**	**3.1**	**1.8**	**6.9**	**44**
stat DAC07															
Americhelidium micropleon	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Banksia mayerella	Caprellidea	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Campylaspis rubromaculata	Cumacea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			9	5	3	5.7	6.0	3	9	3.1	1.8	6.9	17
Dorvillea sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Edwardsiid	Cnidaria	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	3	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Euphilomedes carcharodonta	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Glycera americana	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			8	19	12	13.0	13.5	8	19	5.6	3.2	12.5	39
Mediomastus sp(p).	Polychaeta	P			1	1	4	2.0	2.5	1	4	1.7	1.0	3.9	6
Musculista senhousia	Bivalvia	M			1	6	3	3.3	3.5	1	6	2.5	1.5	5.7	10
oligochaeta	Oligochaeta	O	o		0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Polycladida	Platyhelmenthes	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			6	7	6	6.3	6.5	6	7	0.6	0.3	1.3	19
Pseudopolydora paucibranchiata	Polychaeta	P			14	30	22	22.0	22.0	14	30	8.0	4.6	18.0	66
Scolelepis sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			3	4	2	3.0	3.0	2	4	1.0	0.6	2.3	9
Scoletoma sp. C	Polychaeta	P			16	9	14	13.0	12.5	9	16	3.6	2.1	8.1	39
Spiophanes duplex	Polychaeta	P			2	1	6	3.0	3.5	1	6	2.6	1.5	6.0	9
Theora lubrica	Bivalvia	M			3	5	6	4.7	4.5	3	6	1.5	0.9	3.4	14
Typosyllis nipponica	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Total Fauna				**25**	**67**	**96**	**87**	**83.3**	**81.5**	**67**	**96**	**14.8**	**8.6**	**33.4**	**250**
Total Polychaetes				**15**	**62**	**83**	**72**	**72.3**	**72.5**	**62**	**83**	**10.5**	**6.1**	**23.6**	**217**
Total Molluscs				**2**	**4**	**11**	**9**	**8.0**	**7.5**	**4**	**11**	**3.6**	**2.1**	**8.1**	**24**
Total Crustaceans				**5**	**1**	**2**	**3**	**2.0**	**2.0**	**1**	**3**	**1.0**	**0.6**	**2.3**	**6**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes				**1**	**0**	**0**	**1**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
heterophoxus				**1**	**0**	**0**	**1**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**25**	**14**	**15**	**19**	**16.0**	**16.5**	**14**	**19**	**2.6**	**1.5**	**6.0**	**48**

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
stat DAC08															
Americhelidium micropleon	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Amphideutopus oculatus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			1	3	0	1.3	1.5	0	3	1.5	0.9	3.4	4
Capitella capitata	Polychaeta	P	c		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cylindroleberididae	Ostracoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			8	3	1	4.0	4.5	1	8	3.6	2.1	8.1	12
Dorvillea sp(p).	Polychaeta	P			4	3	1	2.7	2.5	1	4	1.5	0.9	3.4	8
Edwardsiid	Cnidaria	O			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Euphilomedes carcharodonta	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			12	11	0	7.7	6.0	0	12	6.7	3.8	15.0	23
Heteriserolis carinata	Isopoda	C			3	0	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Heterophoxus affinis	Amphipoda	C	h		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			22	10	16	16.0	16.0	10	22	6.0	3.5	13.5	48
Leptochelia dubia	Tanaidacea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Lumbrineridae	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Lyonsia californica	Bivalvia	M			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Mediomastus sp(p).	Polychaeta	P			4	6	2	4.0	4.0	2	6	2.0	1.2	4.5	12
Musculista senhousia	Bivalvia	M			4	6	4	4.7	5.0	4	6	1.2	0.7	2.6	14
Nemertea	Nemertea	O			2	1	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			5	7	3	5.0	5.0	3	7	2.0	1.2	4.5	15
Polydora cornuta	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			16	14	6	12.0	11.0	6	16	5.3	3.1	11.9	36
Pseudopolydora paucibranchiata	Polychaeta	P			59	38	7	34.7	33.0	7	59	26.2	15.1	58.9	104
Scoletoma sp. A	Polychaeta	P			5	2	3	3.3	3.5	2	5	1.5	0.9	3.4	10
Scoletoma sp. C	Polychaeta	P			29	18	12	19.7	20.5	12	29	8.6	5.0	19.4	59
Scoletoma tetraura	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Theora lubrica	Bivalvia	M			3	3	7	4.3	5.0	3	7	2.3	1.3	5.2	13
Typosyllis nipponica	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Vargula americana	Ostracoda	C			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Total Fauna				**34**	**190**	**137**	**64**	**130.3**	**127.0**	**64**	**190**	**63.3**	**36.5**	**142.3**	**391**
Total Polychaetes				**17**	**169**	**118**	**51**	**112.7**	**110.0**	**51**	**169**	**59.2**	**34.2**	**133.2**	**338**
Total Molluscs				**4**	**9**	**9**	**12**	**10.0**	**10.5**	**9**	**12**	**1.7**	**1.0**	**3.9**	**30**
Total Crustaceans				**9**	**8**	**8**	**0**	**5.3**	**4.0**	**0**	**8**	**4.6**	**2.7**	**10.4**	**16**
capitellids				**1**	**1**	**0**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
oligochaetes				**1**	**1**	**0**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
heterophoxus				**1**	**1**	**0**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**34**	**27**	**22**	**13**	**20.7**	**20.0**	**13**	**27**	**7.1**	**4.1**	**16.0**	**62**
stat DAC09															
Acteocina diegensis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Amphideutopus oculatus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Anoplodactylus erectus	Pychnogonida	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Brania mediodentata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Diplocirrus sp. SD1	Polychaeta	P			3	1	6	3.3	3.5	1	6	2.5	1.5	5.7	10
Dorvillea sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Eteone aestuarina	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Euchone limnicola	Polychaeta	P			2	4	7	4.3	4.5	2	7	2.5	1.5	5.7	13
Euphilomedes carcharodonta	Ostracoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Exogone lourei	Polychaeta	P			0	4	0	1.3	2.0	0	4	2.3	1.3	5.2	4

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Glycera americana	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		3	2	3	2.7	2.5	2	3	0.6	0.3	1.3	8
Leitoscoloplos pugettensis	Polychaeta	P			4	21	21	15.3	12.5	4	21	9.8	5.7	22.1	46
Lyonsia californica	Bivalvia	M			0	2	1	1.0	1.0	0	2	1.0	0.6	2.3	3
Mediomastus sp(p).	Polychaeta	P			2	1	4	2.3	2.5	1	4	1.5	0.9	3.4	7
Musculista senhousia	Bivalvia	M			2	2	2	2.0	2.0	2	2	0.0	0.0	0.0	6
Mycoma nasuta	Bivalvia	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Nemertea	Nemertea	O			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			0	5	10	5.0	5.0	0	10	5.0	2.9	11.3	15
Pseudopolydora paucibranchiata	Polychaeta	P			6	54	32	30.7	30.0	6	54	24.0	13.9	54.1	92
Rudilemboides stenopropodus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. A	Polychaeta	P			4	2	0	2.0	2.0	0	4	2.0	1.2	4.5	6
Scoletoma sp. C	Polychaeta	P			8	9	10	9.0	9.0	8	10	1.0	0.6	2.3	27
Spiophanes duplex	Polychaeta	P			1	2	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Theora lubrica	Bivalvia	M			1	11	7	6.3	6.0	1	11	5.0	2.9	11.3	19
Typosyllis nipponica	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Total Fauna				**31**	**39**	**127**	**111**	**92.3**	**83.0**	**39**	**127**	**46.9**	**27.1**	**105.5**	**277**
Total Polychaetes				**17**	**32**	**105**	**94**	**77.0**	**68.5**	**32**	**105**	**39.4**	**22.7**	**88.6**	**231**
Total Molluscs				**6**	**3**	**16**	**12**	**10.3**	**9.5**	**3**	**16**	**6.7**	**3.8**	**15.0**	**31**
Total Crustaceans				**7**	**3**	**6**	**5**	**4.7**	**4.5**	**3**	**6**	**1.5**	**0.9**	**3.4**	**14**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**3**	**2**	**3**	**2.7**	**2.5**	**2**	**3**	**0.6**	**0.3**	**1.3**	**8**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**31**	**14**	**21**	**19**	**18.0**	**17.5**	**14**	**21**	**3.6**	**2.1**	**8.1**	**54**
stat SWZ01															
Amphithoe laurtosa	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Capitella capitata	Polychaeta	P	c		0	2	2	1.3	1.0	0	2	1.2	0.7	2.6	4
Cossura sp. A	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Deximinidae	Amphipoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Dorvillea sp(p).	Polychaeta	P			0	1	17	6.0	8.5	0	17	9.5	5.5	21.5	18
Grandidierella japonica	Amphipoda	C			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Hemigrapsus oregonensis	Decapoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Ianiropsis tridens	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			0	8	0	2.7	4.0	0	8	4.6	2.7	10.4	8
Nebalia sp.	Decapoda	C			0	1	5	2.0	2.5	0	5	2.6	1.5	6.0	6
oligochaeta	Oligochaeta	O	o		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Paracerceis caudata	Isopoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			0	3	1	1.3	1.5	0	3	1.5	0.9	3.4	4
Prionospio lighti	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. C	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Total Fauna				**16**	**0**	**23**	**32**	**18.3**	**16.0**	**0**	**32**	**16.5**	**9.5**	**37.1**	**55**
Total Polychaetes				**7**	**0**	**8**	**24**	**10.7**	**12.0**	**0**	**24**	**12.2**	**7.1**	**27.5**	**32**
Total Molluscs				**1**	**0**	**8**	**0**	**2.7**	**4.0**	**0**	**8**	**4.6**	**2.7**	**10.4**	**8**
Total Crustaceans				**7**	**0**	**6**	**8**	**4.7**	**4.0**	**0**	**8**	**4.2**	**2.4**	**9.4**	**14**
capitellids				**1**	**0**	**2**	**2**	**1.3**	**1.0**	**0**	**2**	**1.2**	**0.7**	**2.6**	**4**
oligochaetes				**1**	**0**	**1**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**16**	**0**	**12**	**9**	**7.0**	**6.0**	**0**	**12**	**6.2**	**3.6**	**14.1**	**21**
stat SWZ02															
Capitella capitata	Polychaeta	P	c		1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Cossura pygodactylata	Polychaeta	P			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Cossura sp. A	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Dorvillea sp(p).	Polychaeta	P			3	0	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Exogone lourei	Polychaeta	P			0	3	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Glycera americana	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Grandidierella japonica	Amphipoda	C			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Heteriserolis carinata	Isopoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heterophoxus affinis	Amphipoda	C	h		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Neotrypaea californiens is	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		0	10	0	3.3	5.0	0	10	5.8	3.3	13.0	10
Prionospio heterobranchia	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. C	Polychaeta	P			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Theora lubrica	Bivalvia	M			2	1	0	1.0	1.0	0	2	1.0	0.6	2.3	3
Total Fauna				**14**	**8**	**26**	**1**	**11.7**	**13.5**	**1**	**26**	**12.9**	**7.4**	**29.0**	**35**
Total Polychaetes				**8**	**5**	**12**	**0**	**5.7**	**6.0**	**0**	**12**	**6.0**	**3.5**	**13.6**	**17**
Total Molluscs				**1**	**2**	**1**	**0**	**1.0**	**1.0**	**0**	**2**	**1.0**	**0.6**	**2.3**	**3**
Total Crustaceans				**4**	**1**	**3**	**1**	**1.7**	**2.0**	**1**	**3**	**1.2**	**0.7**	**2.6**	**5**
capitellids				**1**	**1**	**1**	**0**	**0.7**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**2**
oligochaetes				**1**	**0**	**10**	**0**	**3.3**	**5.0**	**0**	**10**	**5.8**	**3.3**	**13.0**	**10**
heterophoxus				**1**	**0**	**1**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**14**	**5**	**11**	**1**	**5.7**	**6.0**	**1**	**11**	**5.0**	**2.9**	**11.3**	**17**
stat SWZ03															
Americhelidium micropleon	Amphipoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Amphideutopus oculatus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Campylaspis rubromaculata	Cumacea	C			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Cirriformia spirabrancha	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura pygodactylata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			1	4	2	2.3	2.5	1	4	1.5	0.9	3.4	7
Cylindroleberididae	Ostracoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Diplocirrus sp. SD1	Polychaeta	P			1	2	1	1.3	1.5	1	2	0.6	0.3	1.3	4
Dorvillea sp(p).	Polychaeta	P			5	5	19	9.7	12.0	5	19	8.1	4.7	18.2	29
Euchone limnicola	Polychaeta	P			6	2	2	3.3	4.0	2	6	2.3	1.3	5.2	10
Exogone lourei	Polychaeta	P			1	3	2	2.0	2.0	1	3	1.0	0.6	2.3	6
Exogone sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Glycera americana	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Harmothoe imbricata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Heterophoxus affinis	Amphipoda	C	h		0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			14	7	11	10.7	10.5	7	14	3.5	2.0	7.9	32
Lumbrineridae	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mactromeris sp.	Bivalvia	M			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mayerella banksia	Caprellidea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			0	1	5	2.0	2.5	0	5	2.6	1.5	6.0	6
Mediomastus sp(p).	Polychaeta	P			5	2	0	2.3	2.5	0	5	2.5	1.5	5.7	7
Musculista senhousia	Bivalvia	M			2	1	3	2.0	2.0	1	3	1.0	0.6	2.3	6
Nemertea	Nemertea	O			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Nudibranchia	Nudibranchia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Phtisica marina	Caprellidea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			6	6	9	7.0	7.5	6	9	1.7	1.0	3.9	21
Pista sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			8	5	11	8.0	8.0	5	11	3.0	1.7	6.8	24
Pseudopolydora paucibranchiata	Polychaeta	P			4	7	3	4.7	5.0	3	7	2.1	1.2	4.7	14
Pyromaia tuberculata	Decapoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Rudilemboides stenopropodus	Amphipoda	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp(p).	Polychaeta	P			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Scoletoma sp. C	Polychaeta	P			5	0	2	2.3	2.5	0	5	2.5	1.5	5.7	7
Scyphoproctus oculatus	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiochaetopterus spp.	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
Spiophanes duplex	Polychaeta	P			3	0	2	1.7	1.5	0	3	1.5	0.9	3.4	5
Theora lubrica	Bivalvia	M			12	11	7	10.0	9.5	7	12	2.6	1.5	6.0	30
Total Fauna				**39**	**85**	**63**	**90**	**79.3**	**76.5**	**63**	**90**	**14.4**	**8.3**	**32.3**	**238**
Total Polychaetes				**23**	**65**	**46**	**72**	**61.0**	**59.0**	**46**	**72**	**13.5**	**7.8**	**30.3**	**183**
Total Molluscs				**5**	**14**	**14**	**11**	**13.0**	**12.5**	**11**	**14**	**1.7**	**1.0**	**3.9**	**39**
Total Crustaceans				**10**	**6**	**3**	**5**	**4.7**	**4.5**	**3**	**6**	**1.5**	**0.9**	**3.4**	**14**
capitellids								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**0**	**1**	**1**	**0.7**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**2**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**39**	**25**	**20**	**23**	**22.7**	**22.5**	**20**	**25**	**2.5**	**1.5**	**5.7**	**68**
stat SWZ04															
Actinaria	Cnidaria	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Americhelidium micropleon	Amphipoda	C			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Asthaenothaerus diegensis	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Capitella capitata	Polychaeta	P	c		1	7	0	2.7	3.5	0	7	3.8	2.2	8.5	8
Cirratilidae sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Cossura sp. A	Polychaeta	P			1	0	5	2.0	2.5	0	5	2.6	1.5	6.0	6
Cylindroleberididae	Ostracoda	C			0	0	4	1.3	2.0	0	4	2.3	1.3	5.2	4
Dorvillea sp(p).	Polychaeta	P			0	2	18	6.7	9.0	0	18	9.9	5.7	22.2	20
Euchone limnicola	Polychaeta	P			0	0	4	1.3	2.0	0	4	2.3	1.3	5.2	4
Eupolymnia heterobranchia	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Exogone lourei	Polychaeta	P			0	0	4	1.3	2.0	0	4	2.3	1.3	5.2	4
Grandidierella japonica	Amphipoda	C			0	0	5	1.7	2.5	0	5	2.9	1.7	6.5	5
Harmothoe imbricata	Polychaeta	P			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Hartmanodes hartmanae	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Leitoscoloplos pugettensis	Polychaeta	P			0	0	10	3.3	5.0	0	10	5.8	3.3	13.0	10
Mayerella banksia	Caprellidea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus sp(p).	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Monticellina sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			1	5	12	6.0	6.5	1	12	5.6	3.2	12.5	18
Neanthes acuminata	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Neanthes sp(p).	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Nebalia sp.	Decapoda	C			0	4	0	1.3	2.0	0	4	2.3	1.3	5.2	4
Nemertea	Nemertea	O			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
oligochaeta	Oligochaeta	O	o		0	1	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Ophiuriodia	Ophiuriodia	E			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Paracerceis caudata	Isopoda	C			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Paranthura elegans	Isopoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Phtisica marina	Caprellidea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pista agassizi	Polychaeta	P			1	1	16	6.0	8.5	1	16	8.7	5.0	19.5	18
Platynereis bicanaliculata	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Podocerus falanus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			1	1	12	4.7	6.5	1	12	6.4	3.7	14.3	14
Prototheca staminea	Bivalvia	M			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Pseudopolydora paucibranchiata	Polychaeta	P			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Scoletoma sp. A	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. C	Polychaeta	P			1	0	5	2.0	2.5	0	5	2.6	1.5	6.0	6
Sinelobus stanfordi	Tanaidacea	C			0	0	3	1.0	1.5	0	3	1.7	1.0	3.9	3
Spiophanes duplex	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Theora lubrica	Bivalvia	M			2	4	11	5.7	6.5	2	11	4.7	2.7	10.6	17
Typosyllis nipponica	Polychaeta	P			0	0	4	1.3	2.0	0	4	2.3	1.3	5.2	4
Total Fauna				**41**	**10**	**28**	**149**	**62.3**	**79.5**	**10**	**149**	**75.6**	**43.6**	**170.1**	**187**
Total Polychaetes				**21**	**5**	**12**	**96**	**37.7**	**50.5**	**5**	**96**	**50.6**	**29.2**	**113.9**	**113**
Total Molluscs				**4**	**3**	**9**	**25**	**12.3**	**14.0**	**3**	**25**	**11.4**	**6.6**	**25.6**	**37**
Total Crustaceans				**12**	**0**	**5**	**22**	**9.0**	**11.0**	**0**	**22**	**11.5**	**6.7**	**25.9**	**27**
capitellids				**1**	**1**	**7**	**0**	**2.7**	**3.5**	**0**	**7**	**3.8**	**2.2**	**8.5**	**8**

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	Group	Phy	RBI	sp.	rep 1	rep 2	rep 3	mean	median	min	max	SD	S.E.	95% CL	sum
oligochaetes				**1**	**0**	**1**	**2**	**1.0**	**1.0**	**0**	**2**	**1.0**	**0.6**	**2.3**	**3**
heterophoxus								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**41**	**8**	**11**	**35**	**18.0**	**21.5**	**8**	**35**	**14.8**	**8.5**	**33.3**	**54**
stat SWZ05															
Bivalvia	Bivalvia	M			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Capitella capitata	Polychaeta	P	c		5	0	0	1.7	2.5	0	5	2.9	1.7	6.5	5
Cossura pygodactylata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Dorvillea sp(p).	Polychaeta	P			2	0	9	3.7	4.5	0	9	4.7	2.7	10.6	11
Eteone aestuarina	Polychaeta	P			2	0	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Exogone lourei	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Glycera americana	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Heteriserolis carinata	Isopoda	C			0	2	0	0.7	1.0	0	2	1.2	0.7	2.6	2
Heterophoxus affinis	Amphipoda	C	h		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Leitoscoloplos pugettensis	Polychaeta	P			3	0	0	1.0	1.5	0	3	1.7	1.0	3.9	3
Mediomastus sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Monticellina cryptica	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Monticellina sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Neanthes sp(p).	Polychaeta	P			1	0	2	1.0	1.0	0	2	1.0	0.6	2.3	3
Pista agassizi	Polychaeta	P			4	2	2	2.7	3.0	2	4	1.2	0.7	2.6	8
Polydora cornuta	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Prionospio heterobranchia	Polychaeta	P			11	4	3	6.0	7.0	3	11	4.4	2.5	9.8	18
Pseudopolydora paucibranchiata	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Rudilemboides stenopropodus	Amphipoda	C			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp(p).	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. C	Polychaeta	P			0	2	4	2.0	2.0	0	4	2.0	1.2	4.5	6
Theora lubrica	Bivalvia	M			5	4	1	3.3	3.0	1	5	2.1	1.2	4.7	10
Total Fauna				**22**	**36**	**22**	**25**	**27.7**	**29.0**	**22**	**36**	**7.4**	**4.3**	**16.6**	**83**
Total Polychaetes				**17**	**30**	**14**	**24**	**22.7**	**22.0**	**14**	**30**	**8.1**	**4.7**	**18.2**	**68**
Total Molluscs				**2**	**6**	**4**	**1**	**3.7**	**3.5**	**1**	**6**	**2.5**	**1.5**	**5.7**	**11**
Total Crustaceans				**3**	**0**	**4**	**0**	**1.3**	**2.0**	**0**	**4**	**2.3**	**1.3**	**5.2**	**4**
capitellids				**1**	**5**	**0**	**0**	**1.7**	**2.5**	**0**	**5**	**2.9**	**1.7**	**6.5**	**5**
oligochaetes								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
heterophoxus				**1**	**0**	**1**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**22**	**11**	**13**	**10**	**11.3**	**11.5**	**10**	**13**	**1.5**	**0.9**	**3.4**	**34**
stat SWZ06															
Americhelidium micropleon	Amphipoda	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Asthaenothaerus diegensis	Bivalvia	M			1	0	3	1.3	1.5	0	3	1.5	0.9	3.4	4
Campylaspis rubromaculata	Cumacea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Capitella capitata	Polychaeta	P	c		0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cirratilidae sp(p).	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Cirriformia spirabrancha	Polychaeta	P			0	1	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Cossura pygodactylata	Polychaeta	P			5	0	0	1.7	2.5	0	5	2.9	1.7	6.5	5
Cossura sp. A	Polychaeta	P			0	0	2	0.7	1.0	0	2	1.2	0.7	2.6	2
Cylindroleberididae	Ostracoda	C			1	1	2	1.3	1.5	1	2	0.6	0.3	1.3	4
Diplocirrus sp. SD1	Polychaeta	P			9	2	3	4.7	5.5	2	9	3.8	2.2	8.5	14
Dorvillea sp(p).	Polychaeta	P			9	3	5	5.7	6.0	3	9	3.1	1.8	6.9	17
Euchone limnicola	Polychaeta	P			4	0	3	2.3	2.0	0	4	2.1	1.2	4.7	7
Euphilomedes carcharodonta	Ostracoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Exogone lourei	Polychaeta	P			2	0	5	2.3	2.5	0	5	2.5	1.5	5.7	7
Glycera americana	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Heteriserolis carinata	Isopoda	C			1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Heterophoxus affinis	Amphipoda	C	h		1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Leitoscoloplos pugettensis	Polychaeta	P			11	1	17	9.7	9.0	1	17	8.1	4.7	18.2	29
Leptochelia dubia	Tanaidacea	C			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Mediomastus californiensis	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1

Benthic community analysis (definitive)–Number of benthic individuals –Moss Landing Marine Laboratories

					Number/core			Summary statistics							
Taxon	**Group**	**Phy**	**RBI**	**sp.**	**rep 1**	**rep 2**	**rep 3**	**mean**	**median**	**min**	**max**	**SD**	**S.E.**	**95% CL**	**sum**
Mediomastus sp(p).	Polychaeta	P			3	0	4	2.3	2.0	0	4	2.1	1.2	4.7	7
Microspio pigmentata	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Monticellina sp(p).	Polychaeta	P			0	1	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Musculista senhousia	Bivalvia	M			4	1	2	2.3	2.5	1	4	1.5	0.9	3.4	7
Nemertea	Nemertea	O			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
oligochaeta	Oligochaeta	O	o		1	0	1	0.7	0.5	0	1	0.6	0.3	1.3	2
Pista agassizi	Polychaeta	P			12	5	3	6.7	7.5	3	12	4.7	2.7	10.6	20
Prionospio heterobranchia	Polychaeta	P			8	1	9	6.0	5.0	1	9	4.4	2.5	9.8	18
Pseudopolydora paucibranchiata	Polychaeta	P			9	2	11	7.3	6.5	2	11	4.7	2.7	10.6	22
Scoletoma sp(p).	Polychaeta	P			1	1	0	0.7	0.5	0	1	0.6	0.3	1.3	2
Scoletoma sp. A	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Scoletoma sp. C	Polychaeta	P			5	3	5	4.3	4.0	3	5	1.2	0.7	2.6	13
Scyphoproctus oculatus	Polychaeta	P			1	0	0	0.3	0.5	0	1	0.6	0.3	1.3	1
Sinelobus stanfordi	Tanaidacea	C			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Spiophanes duplex	Polychaeta	P			2	1	2	1.7	1.5	1	2	0.6	0.3	1.3	5
Theora lubrica	Bivalvia	M			1	0	4	1.7	2.0	0	4	2.1	1.2	4.7	5
Typosyllis nipponica	Polychaeta	P			0	0	1	0.3	0.5	0	1	0.6	0.3	1.3	1
Total Fauna				**37**	**96**	**24**	**92**	**70.7**	**60.0**	**24**	**96**	**40.5**	**23.4**	**91.0**	**212**
Total Polychaetes				**24**	**84**	**22**	**73**	**59.7**	**53.0**	**22**	**84**	**33.1**	**19.1**	**74.4**	**179**
Total Molluscs				**3**	**6**	**1**	**9**	**5.3**	**5.0**	**1**	**9**	**4.0**	**2.3**	**9.1**	**16**
Total Crustaceans				**8**	**5**	**1**	**8**	**4.7**	**4.5**	**1**	**8**	**3.5**	**2.0**	**7.9**	**14**
capitellids				**1**	**0**	**1**	**0**	**0.3**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**1**
oligochaetes				**1**	**1**	**0**	**1**	**0.7**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**2**
heterophoxus				**1**	**1**	**0**	**1**	**0.7**	**0.5**	**0**	**1**	**0.6**	**0.3**	**1.3**	**2**
tellina								**0.0**	**0.0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0**
Total Species				**37**	**26**	**14**	**28**	**22.7**	**21.0**	**14**	**28**	**7.6**	**4.4**	**17.0**	**68**

Appendix I. Tissue chemistry data and net bioaccumulation calculations for definitive sampling.

Tissue chemistry data (definitive)—Metals results summary (all results in mg/dry kg)—CRG Marine Laboratories, Inc.

Analyte	MDL	T0-1	T0-2	T0-3	T0-3 (R2)	SWZ01-A	SWZ01-B	SWZ01-C	SWZ02	SWZ04
Aluminum	1	33.1	49.6	73.6	82.5	679	478	548	358	549
Antimony	0.05	0.92	1.11	1.25	0.92	1.26	1.34	1.37	1.27	1.04
Arsenic	0.05	16.3	16	17.8	18.1	21.9	18.3	23.7	22.3	19.1
Barium	0.05	1.21	0.42	0.25	0.65	5.12	3.26	4.51	3.05	4.43
Beryllium	0.01	ND	ND	ND	ND	0.02	0.01	0.01	0.01	0.01
Cadmium	0.01	0.2	0.18	0.12	0.13	0.19	0.15	0.15	0.17	0.22
Chromium	0.05	5.25	6.94	8.34	7.22	7.97	8.54	7.63	6.85	6.11
Cobalt	0.01	0.78	0.82	0.46	0.52	0.91	0.81	0.72	0.78	0.76
Copper	0.01	13.9	10.7	16.6	16.5	21.6	17.5	32.7	22.5	18.3
Iron	1	370	457	444	456	1630	1290	1370	1000	1250
Lead	0.01	1.07	0.73	1.24	1.01	6.89	4.31	5.35	4.78	4.88
Manganese	0.05	3.15	2.9	2.25	2.56	8.79	7.37	6.2	6.21	7.74
Mercury	0.005	ND	ND	0.02	ND	0.25	ND	0.01	0.12	0.09
Molybdenum	0.05	5.85	4.85	9.58	9.94	10	7.75	9.88	8.82	8.33
Nickel	0.01	2.13	2.13	2.28	2.24	2.77	3.17	2.66	3.25	2.51
Selenium	0.05	1.49	1.72	1.9	1.57	1.85	1.66	1.96	1.74	1.78
Silver	0.01	0.07	0.08	0.13	0.1	0.05	0.11	0.11	0.06	0.05
Strontium	0.05	91.1	75	90.9	92.7	71.1	75.9	71.1	75.2	66.1
Thallium	0.01	0.01	ND	ND	ND	0.02	0.01	0.01	0.02	0.02
Tin	0.05	0.15	0.3	0.19	0.17	0.81	0.58	0.59	0.66	0.65
Titanium	0.05	11.6	13.2	14.5	17.6	47	33.3	34.7	27	38
Vanadium	0.05	1.36	1.6	1.45	1.33	3.65	2.73	3.18	2.54	2.79
Zinc	0.05	72.2	74.1	72.1	70.8	75.5	68.1	70.9	61.7	80.6

Analyte	MDL	DAC01	DAC03	DAC05-A	DAC05-B	DAC05-C	DAC07	DAC09
Aluminum	1	713	609	503	475	287	237	662
Antimony	0.05	1.31	1.22	1.08	0.9	0.47	1.12	1.09
Arsenic	0.05	18.4	18.1	19.5	18.9	10.6	20	20
Barium	0.05	4.93	4.38	4.46	3.26	2.09	1.69	5.13
Beryllium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cadmium	0.01	0.13	0.16	0.18	0.15	0.07	0.15	0.16
Chromium	0.05	8.74	8.09	7.61	6.67	3.32	6.71	7.69
Cobalt	0.01	0.74	0.92	0.85	0.84	0.45	0.72	0.86
Copper	0.01	18.8	17.3	17.6	15.4	8.65	15.4	20.6
Iron	1	1530	1380	1200	1080	595	734	1370
Lead	0.01	4.69	4.83	5.87	4.55	2.62	2.89	5.11
Manganese	0.05	8.52	8.43	9.78	9.77	4.9	5.14	9.21
Mercury	0.005	0.13	0.07	0.08	0.02	0.01	0.05	0.08
Molybdenum	0.05	9.01	8.64	9.85	7.65	4.44	10.2	10.2
Nickel	0.01	2.65	3.26	2.55	2.46	1.19	2.35	2.29
Selenium	0.05	1.48	1.78	1.73	1.67	0.92	1.57	1.61
Silver	0.01	0.08	0.08	0.09	0.08	0.04	0.09	0.09
Strontium	0.05	73	100	76.1	64.5	37.9	63.9	76.7
Thallium	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02
Tin	0.05	0.99	0.99	0.77	0.55	0.25	0.37	0.63
Titanium	0.05	51.5	41.5	38.3	33.7	20.7	22.1	46
Vanadium	0.05	3.23	2.91	2.58	2.61	1.41	1.72	3.07
Zinc	0.05	61.4	60.8	67.2	67.4	38.3	63.2	67.3

Analyte	MDL	2229	2229 (R2)	2238	2243	2433	2435	2441
Aluminum	1	685	632	382	616	359	293	261
Antimony	0.05	1.17	1.04	1.06	1.25	1.25	1.19	0.87
Arsenic	0.05	18.7	19.7	14	17.4	15.6	15.2	14.4
Barium	0.05	4.1	6.38	1.62	2.87	2.41	2.11	4.26
Beryllium	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01
Cadmium	0.01	0.15	0.15	0.17	0.15	0.12	0.19	0.12
Chromium	0.05	7.57	6.06	7.55	8.11	7.87	7.25	6.36
Cobalt	0.01	0.89	0.92	0.97	1.01	0.83	0.73	0.76
Copper	0.01	14.9	15.5	8.94	11.4	11.5	8.87	9.6

Tissue chemistry data (definitive)—Metals results summary (all results in mg/dry kg)—CRG Marine Laboratories, Inc.

Iron	1	1250	1290	857	1260	956	887	803	
Lead	0.01	3.35	3.24	1.28	2.29	1.53	1.28	1.28	
Manganese	0.05	11.4	11.6	8.04	7.65	6.57	5.28	4.53	
Mercury	0.005	0.08	0.04	0.03	0.02	0.01	0.03	0.03	
Molybdenum	0.05	6.72	6.99	3.39	4.56	4.56	4.29	4.81	
Nickel	0.01	2.02	1.96	2.24	2.15	2.08	1.8	2.05	
Selenium	0.05	1.59	1.78	1.67	1.96	1.72	1.79	1.67	
Silver	0.01	0.11	0.09	0.11	0.1	0.1	0.11	0.09	
Strontium	0.05	67.1	66.8	64.9	76.2	67.9	65.7	65.7	
Thallium	0.01	0.02	0.02	0.01	0.02	0.01	0.01	0.01	
Tin	0.05	0.64	0.6	0.24	0.48	0.39	0.25	0.35	
Titanium	0.05	41.8	44.6	28.7	39.6	30.1	26.4	25.2	
Vanadium	0.05	2.81	2.92	2.28	2.89	2.49	2.17	2.23	
Zinc	0.05	61.5	61.4	55.8	57	54.2	51.4	60.4	
Analyte	**MDL**	**BST01**	**BST04-A**	**BST04-B**	**BST04-C**	**BST05**	**BST06**	**BST06 (R2)**	**BST07**
Aluminum	1	298	506	344	541	662	494	499	407
Antimony	0.05	1.16	1.08	1.09	1.49	1.12	1.35	1.17	1.19
Arsenic	0.05	20	18.9	21.1	22.7	19.1	18.7	19.1	21.2
Barium	0.05	3.21	3.36	1.79	3.15	4.68	3.39	3.29	2.66
Beryllium	0.01	0.01	0.01		0.02	0.02	0.01	0.01	0.01
Cadmium	0.01	0.14	0.15	0.16	0.17	0.11	0.11	0.12	0.12
Chromium	0.05	8.15	7.54	7.79	9.71	6.82	8.39	7.66	7.1
Cobalt	0.01	0.72	0.86	0.73	0.91	0.8	0.79	0.85	0.67
Copper	0.01	16	18	17	22.5	16.9	16	15.2	18
Iron	1	883	1140	851	1120	1440	1100	1130	1040
Lead	0.01	3.01	3.78	3.18	4.87	2.89	3.04	2.7	2.24
Manganese	0.05	6.03	7.82	5.89	6.79	8.76	7.96	8.23	6.61
Mercury	0.005	0.02	0.04	0.03	0.02	ND	0.01	ND	ND
Molybdenum	0.05	7	8.83	8.12	7.71	8	7.41	7.67	10.5
Nickel	0.01	1.71	2.72	2.59	2.51	2.1	1.95	2.02	1.79
Selenium	0.05	1.76	1.57	1.92	1.91	1.47	1.81	1.68	1.49
Silver	0.01	0.11	0.11	0.1	0.15	0.11	0.13	0.11	0.1
Strontium	0.05	69.1	67.4	67	76	71.9	67.7	70.5	74.3
Thallium	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Tin	0.05	0.56	0.95	0.47	0.64	0.61	0.49	0.49	0.56
Titanium	0.05	26.2	35.7	27.9	37.7	46.5	36	38	30
Vanadium	0.05	2.19	2.89	2.28	2.94	2.97	2.74	2.81	2.6
Zinc	0.05	55.1	54.4	73.3	75.8	55.1	59.4	59.4	53.4

Tissue chemistry data (definitive)—PCB congener results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	**MDL**	**T0-1**	**T0-2**	**T0-3**	**SWZ01-A**	**SWZ01-B**	**SWZ01-C**	**SWZ02**	**SWZ04**
PCB018	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB028	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB037	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB044	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB049	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB052	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB066	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB070	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB074	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB077	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—PCB congener results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB105	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB138	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB183	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB194	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		0	0	0	0	0	0	0	0

Analyte	**MDL**	**DAC01**	**DAC03**	**DAC05-A**	**DAC05-B**	**DAC05-C**	**DAC07**	**DAC09**
PCB018	1	ND	ND	ND	ND	ND	ND	ND
PCB028	1	ND	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND	ND
PCB037	1	ND	ND	ND	ND	ND	ND	ND
PCB044	1	ND	ND	ND	ND	ND	ND	ND
PCB049	1	ND	ND	ND	ND	ND	ND	ND
PCB052	1	ND	ND	ND	ND	ND	ND	ND
PCB066	1	ND	ND	ND	ND	ND	ND	ND
PCB070	1	ND	ND	ND	ND	ND	ND	ND
PCB074	1	ND	ND	ND	ND	ND	ND	ND
PCB077	1	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND	ND
PCB105	1	ND	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—PCB congener results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB138	1	ND	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND	ND
PCB183	1	ND	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND	ND
PCB194	1	ND	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		0	0	0	0	0	0	0
Analyte	**MDL**	**2229**	**2238**	**2243**	**2433**	**2435**	**2435 (R2)**	**2441**
PCB018	1	ND	ND	ND	ND	ND	ND	ND
PCB028	1	ND	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND	ND
PCB037	1	ND	ND	ND	ND	ND	ND	ND
PCB044	1	ND	ND	ND	ND	ND	ND	ND
PCB049	1	ND	ND	ND	ND	ND	ND	ND
PCB052	1	ND	ND	ND	ND	ND	ND	ND
PCB066	1	ND	ND	ND	ND	ND	ND	ND
PCB070	1	ND	ND	ND	ND	ND	ND	ND
PCB074	1	ND	ND	ND	ND	ND	ND	ND
PCB077	1	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND	ND
PCB105	1	ND	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND
PCB138	1	ND	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—PCB congener results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB168+132	1	ND	ND	ND	ND	ND	ND	ND	
PCB169	1	ND	ND	ND	ND	ND	ND	ND	
PCB170	1	ND	ND	ND	ND	ND	ND	ND	
PCB177	1	ND	ND	ND	ND	ND	ND	ND	
PCB180	1	ND	ND	ND	ND	ND	ND	ND	
PCB183	1	ND	ND	ND	ND	ND	ND	ND	
PCB187	1	ND	ND	ND	ND	ND	ND	ND	
PCB189	1	ND	ND	ND	ND	ND	ND	ND	
PCB194	1	ND	ND	ND	ND	ND	ND	ND	
PCB200	1	ND	ND	ND	ND	ND	ND	ND	
PCB201	1	ND	ND	ND	ND	ND	ND	ND	
PCB206	1	ND	ND	ND	ND	ND	ND	ND	
Total Detectable PCBs		0	0	0	0	0	0	0	
Analyte	**MDL**	**BST01**	**BST04-A**	**BST04-B**	**BST04-C**	**BST04-C (R2)**	**BST05**	**BST06**	**BST07**
PCB018	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB028	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB031	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB033	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB037	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB044	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB049	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB052	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB066	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB070	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB074	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB077	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB081	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB087	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB095	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB097	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB099	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB101	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB105	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB110	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB114	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB118	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB119	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB123	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB126	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB128+167	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB138	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB141	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB149	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB151	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB153	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB156	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB157	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB158	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB169	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB170	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB177	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB180	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB183	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB187	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB189	1	ND	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—PCB congener results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

PCB194	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB200	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB201	1	ND	ND	ND	ND	ND	ND	ND	ND
PCB206	1	ND	ND	ND	ND	ND	ND	ND	ND
Total Detectable PCBs		0	0	0	0	0	0	0	0

Tissue chemistry data (definitive)—Aroclor results summary (all results in ug/dry kg)—CRG Marine Laboratories, Inc.

Analyte	MDL	T0-1	T0-2	T0-3	T0-3 (R2)	SWZ01-A	SWZ01-B	SWZ01-C	SWZ02	SWZ04
Aroclor 1016	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	10	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL	DAC01	DAC03	DAC05-A	DAC05-B	DAC05-C	DAC07	DAC09
Aroclor 1016	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	10	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL	2229	2238	2243	2433	2435	2435 (R2)	2441
Aroclor 1016	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	10	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	10	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL	BST01	BST04-A	BST04-B	BST04-C	BST04-C (R2)	BST05	BST06	BST07
Aroclor 1016	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	10	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	10	ND	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—Pesticide results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	MDL	T0-1	T0-2	T0-3	SWZ01-A	SWZ01-B	SWZ01-C	SWZ02	SWZ04
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—Pesticide results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Analyte	**MDL**	**DAC01**	**DAC03**	**DAC05-A**	**DAC05-B**	**DAC05-C**	**DAC07**	**DAC09**	
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	
2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	
Aldrin	1	ND	ND	ND	ND	ND	ND	ND	
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND	
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND	
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND	
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND	
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND	
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND	
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND	
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND	
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND	
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND	
Endrin	1	ND	ND	ND	ND	ND	ND	ND	
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND	
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND	
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND	
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND	
Mirex	1	ND	ND	ND	ND	ND	ND	ND	
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND	
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	
Analyte	**MDL**	**2229**	**2238**	**2243**	**2433**	**2435**	**2435 (R2)**	**2441**	
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	
2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	
Aldrin	1	ND	ND	ND	ND	ND	ND	ND	
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND	
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND	
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND	
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND	
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND	
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND	
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND	
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND	
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND	
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND	
Endrin	1	ND	ND	ND	ND	ND	ND	ND	
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND	
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND	
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND	
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND	
Mirex	1	ND	ND	ND	ND	ND	ND	ND	
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND	
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	
Analyte	**MDL**	**BST01**	**BST04-A**	**BST04-B**	**BST04-C**	**BST04-C (R2)**	**BST05**	**BST06**	**BST07**
2,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—Pesticide results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

2,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-delta	1	ND	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	1	ND	ND	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	1	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	ND	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	ND	ND	ND	ND	ND	ND	ND	ND

Tissue chemistry data (definitive)—PAH results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Analyte	**MDL**	**T0-1**	**T0-2**	**T0-3**	**SWZ01-A**	**SWZ01-B**	**SWZ01-C**	**SWZ02**	**SWZ04**
1-Methylnaphthalene	1	34.1	34.4	35.9	30.8	42.7	ND	28.9	ND
1-Methylphenanthrene	1	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1	71	61.9	59.7	57.4	73.2	ND	55.6	48.6
Acenaphthene	1	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	1	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	1	ND	ND	ND	ND	ND	78.6	ND	ND
Benz[a]anthracene	1	ND	ND	ND	ND	178	289	ND	ND
Benzo[a]pyrene	1	ND	ND	ND	ND	258	492	ND	ND
Benzo[b]fluoranthene	1	ND	ND	ND	ND	232	501	ND	ND
Benzo[e]pyrene	1	ND	ND	ND	ND	185	384	ND	ND
Benzo[g,h,i]perylene	1	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1	ND	ND	ND	ND	323	567	ND	ND
Biphenyl	1	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1	ND	ND	ND	ND	307	480	ND	ND
Dibenz[a,h]anthracene	1	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	1	ND	ND	ND	71.9	496	723	29.6	53.3
Fluorene	1	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-c,d]pyrene	1	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	1	46.9	38.5	37.9	ND	43.1	ND	36.9	ND
Perylene	1	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	1	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	1	ND	ND	ND	91.5	517	788	53.8	85.8
Total Detectable PAHs		152	134.8	133.5	251.6	2655	4302.6	204.8	187.7

Analyte	**MDL**	**DAC01**	**DAC03**	**DAC05-A**	**DAC05-B**	**DAC05-C**	**DAC07**	**DAC09**	
1-Methylnaphthalene	1	ND	ND	ND	ND	ND	ND	49.8	
1-Methylphenanthrene	1	ND	ND	ND	ND	ND	ND	ND	
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	
2,6-Dimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	
2-Methylnaphthalene	1	73.3	54.4	70.2	26	40.6	41.1	98.4	
Acenaphthene	1	ND	ND	ND	ND	ND	ND	ND	

Tissue chemistry data (definitive)—PAH results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Acenaphthylene	1	ND	ND	ND	ND	ND	ND	ND	
Anthracene	1	ND	ND	ND	ND	ND	ND	ND	
Benz[a]anthracene	1	ND	ND	ND	ND	ND	31.8	ND	
Benzo[a]pyrene	1	ND	ND	ND	ND	ND	ND	ND	
Benzo[b]fluoranthene	1	ND	40.1	34.6	87.7	40.8	72.4	ND	
Benzo[e]pyrene	1	ND	ND	ND	ND	ND	ND	ND	
Benzo[g,h,i]perylene	1	ND	ND	ND	ND	ND	ND	ND	
Benzo[k]fluoranthene	1	ND	38.6	46.4	64.3	24	48.7	ND	
Biphenyl	1	ND	ND	ND	ND	ND	ND	ND	
Chrysene	1	ND	ND	ND	ND	ND	33.7	ND	
Dibenz[a,h]anthracene	1	ND	ND	ND	ND	ND	ND	ND	
Fluoranthene	1	ND	ND	ND	45.4	ND	27.5	ND	
Fluorene	1	ND	ND	ND	ND	ND	ND	ND	
Indeno[1,2,3-c,d]pyrene	1	ND	ND	ND	ND	ND	ND	ND	
Naphthalene	1	ND	38.6	ND	35	37.1	33.2	72.8	
Perylene	1	ND	ND	ND	ND	ND	ND	ND	
Phenanthrene	1	ND	ND	ND	ND	ND	ND	ND	
Pyrene	1	ND	ND	ND	50.8	ND	24.2	ND	
Total Detectable PAHs		73.3	171.7	151.2	309.2	142.5	312.6	221	
Analyte	**MDL**	**2229**	**2238**	**2243**	**2433**	**2435**	**2435 (R2)**	**2441**	
1-Methylnaphthalene	1	ND	ND	ND	48.4	ND	ND	50.6	
1-Methylphenanthrene	1	ND	ND	ND	ND	ND	ND	ND	
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	
2,6-Dimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	
2-Methylnaphthalene	1	20.7	55.5	26.6	95.1	111	77.3	111	
Acenaphthene	1	ND	ND	ND	ND	ND	ND	ND	
Acenaphthylene	1	ND	ND	ND	ND	ND	ND	ND	
Anthracene	1	ND	ND	ND	ND	ND	ND	ND	
Benz[a]anthracene	1	23	ND	ND	ND	ND	ND	332	
Benzo[a]pyrene	1	ND	ND	ND	ND	ND	ND	282	
Benzo[b]fluoranthene	1	55.4	ND	ND	ND	ND	ND	299	
Benzo[e]pyrene	1	ND	ND	ND	ND	ND	ND	244	
Benzo[g,h,i]perylene	1	ND	ND	ND	ND	ND	ND	96.8	
Benzo[k]fluoranthene	1	45	ND	ND	ND	ND	ND	274	
Biphenyl	1	ND	ND	ND	ND	ND	ND	ND	
Chrysene	1	ND	ND	ND	ND	ND	ND	365	
Dibenz[a,h]anthracene	1	ND	ND	ND	ND	ND	ND	ND	
Fluoranthene	1	35.3	ND	ND	ND	ND	ND	374	
Fluorene	1	ND	ND	ND	ND	ND	ND	ND	
Indeno[1,2,3-c,d]pyrene	1	ND	ND	ND	ND	ND	ND	ND	
Naphthalene	1	ND	47.8	29.6	68.9	78.3	59.3	78.7	
Perylene	1	ND	ND	ND	ND	ND	ND	32.8	
Phenanthrene	1	ND	ND	ND	ND	ND	ND	ND	
Pyrene	1	ND	ND	ND	ND	ND	ND	368	
Total Detectable PAHs		179.4	103.3	56.2	212.4	189.3	136.6	2907.9	
Analyte	**MDL**	**BST01**	**BST04-A**	**BST04-B**	**BST04-C**	**BST04-C (R2)**	**BST05**	**BST06**	**BST07**
1-Methylnaphthalene	1	45.3	54.4	42.7	ND	ND	ND	ND	53.8
1-Methylphenanthrene	1	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	1	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1	99.5	95.9	73.2	ND	ND	77.6	79.3	91.1
Acenaphthene	1	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	1	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	1	ND	ND	ND	78.6	62.8	125	ND	82.6
Benz[a]anthracene	1	179	356	178	289	266	263	96.1	482
Benzo[a]pyrene	1	338	1020	258	492	415	259	ND	600

Tissue chemistry data (definitive)—PAH results summary (all results in ng/dry g)—CRG Marine Laboratories, Inc.

Benzo[b]fluoranthene	1	418	1170	232	501	599	323	176	628
Benzo[e]pyrene	1	309	779	185	384	318	186	ND	429
Benzo[g,h,i]perylene	1	134	67.6	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1	294	801	323	567	515	297	235	619
Biphenyl	1	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1	285	406	307	480	421	332	99	693
Dibenz[a,h]anthracene	1	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	1	303	311	496	723	648	521	158	2030
Fluorene	1	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-c,d]pyrene	1	ND	67.7	ND	ND	ND	ND	ND	ND
Naphthalene	1	92.1	67.6	43.1	ND	ND	ND	71.6	61.7
Perylene	1	99	177	ND	ND	ND	ND	ND	97.1
Phenanthrene	1	ND	ND	ND	ND	ND	ND	ND	56.4
Pyrene	1	442	1150	517	788	731	398	145	1450
Total Detectable PAHs		3037.9	6523.2	2655	4302.6	3975.8	2781.6	1060	7373.7

Tissue chemistry data (definitive)—Lipids results summary (all results in percent)—CRG Marine Laboratories, Inc.

Analyte	**T0-1**	**T0-2**	**T0-3**					
Lipids	0.1	0.2	0.18					
Analyte	**SWZ01-A**	**SWZ01-B**	**SWZ01-C**	**SWZ02**	**SWZ04**			
Lipids	0.03	0.1	0.08	0.06	0.05			
Analyte	**DAC01**	**DAC03**	**DAC05-A**	**DAC05-B**	**DAC05-C**	**DAC07**	**DAC09**	
Lipids	0.06	0.85	0.11	0.23	0.1	0.14	0.2	
Analyte	**2229**	**2238**	**2243**	**2433**	**2435**	**2435 (R2)**	**2441**	
Lipids	0.13	0.05	0.13	0.11	0.08	0.14	0.23	
Analyte	**BST01**	**BST04-A**	**BST04-B**	**BST04-C**	**BST04-C (R2)**	**BST05**	**BST06**	**BST07**
Lipids	0.09	0.29	0.14	0.15	0.09	0.21	0.16	0.08

Tissue bioaccumulation (definitive)—net metals bioaccumulation in mg/dry kg

	SWZ01-A	**SWZ01-B**	**SWZ01-C**	**SWZ02**	**SWZ04**	**BST01**	**BST04-A**
Aluminum	626.90	425.90	495.90	305.90	496.90	245.90	453.90
Antimony	0.17	0.25	0.28	0.18	-0.05	0.07	-0.01
Arsenic	5.20	1.60	7.00	5.60	2.40	3.30	2.20
Barium	4.49	2.63	3.88	2.42	3.80	2.58	2.73
Beryllium	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Cadmium	0.02	-0.02	-0.02	0.00	0.05	-0.03	-0.02
Chromium	1.13	1.70	0.79	0.01	-0.73	1.31	0.70
Cobalt	0.22	0.12	0.03	0.09	0.07	0.03	0.17
Copper	7.87	3.77	18.97	8.77	4.57	2.27	4.27
Iron	1206.33	866.33	946.33	576.33	826.33	459.33	716.33
Lead	5.88	3.30	4.34	3.77	3.87	2.00	2.77
Manganese	6.02	4.60	3.43	3.44	4.97	3.26	5.05
Mercury	0.24	-0.01	0.00	0.11	0.08	0.01	0.03
Molybdenum	3.24	0.99	3.12	2.06	1.57	0.24	2.07
Nickel	0.59	0.99	0.48	1.07	0.33	-0.47	0.54
Selenium	0.15	-0.04	0.26	0.04	0.08	0.06	-0.13
Silver	-0.04	0.02	0.02	-0.03	-0.04	0.02	0.02
Strontium	-14.57	-9.77	-14.57	-10.47	-19.57	-16.57	-18.27
Thallium	0.01	0.00	0.00	0.01	0.01	0.00	0.01
Tin	0.60	0.37	0.38	0.45	0.44	0.35	0.74
Titanium	33.90	20.20	21.60	13.90	24.90	13.10	22.60
Vanadium	2.18	1.26	1.71	1.07	1.32	0.72	1.42
Zinc	2.70	-4.70	-1.90	-11.10	7.80	-17.70	-18.40
	BST04-B	**BST04-C**	**BST05**	**BST06**	**BST06 (R2)**	**BST07**	**DAC01**
Aluminum	291.90	488.90	609.90	441.90	446.90	354.90	660.90
Antimony	0.00	0.40	0.03	0.26	0.08	0.10	0.22
Arsenic	4.40	6.00	2.40	2.00	2.40	4.50	1.70
Barium	1.16	2.52	4.05	2.76	2.66	2.03	4.30
Beryllium	0.00	0.02	0.02	0.01	0.01	0.01	0.01
Cadmium	-0.01	0.00	-0.06	-0.06	-0.05	-0.05	-0.04

Tissue bioaccumulation (definitive)—net metals bioaccumulation in mg/dry kg

Chromium	0.95	2.87	-0.02	1.55	0.82	0.26	1.90
Cobalt	0.04	0.22	0.11	0.10	0.16	-0.02	0.05
Copper	3.27	8.77	3.17	2.27	1.47	4.27	5.07
Iron	427.33	696.33	1016.33	676.33	706.33	616.33	1106.33
Lead	2.17	3.86	1.88	2.03	1.69	1.23	3.68
Manganese	3.12	4.02	5.99	5.19	5.46	3.84	5.75
Mercury	0.02	0.01	-0.01	0.00	-0.01	-0.01	0.12
Molybdenum	1.36	0.95	1.24	0.65	0.91	3.74	2.25
Nickel	0.41	0.33	-0.08	-0.23	-0.16	-0.39	0.47
Selenium	0.22	0.21	-0.23	0.11	-0.02	-0.21	-0.22
Silver	0.01	0.06	0.02	0.04	0.02	0.01	-0.01
Strontium	-18.67	-9.67	-13.77	-17.97	-15.17	-11.37	-12.67
Thallium	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Tin	0.26	0.43	0.40	0.28	0.28	0.35	0.78
Titanium	14.80	24.60	33.40	22.90	24.90	16.90	38.40
Vanadium	0.81	1.47	1.50	1.27	1.34	1.13	1.76
Zinc	0.50	3.00	-17.70	-13.40	-13.40	-19.40	-11.40
	DAC03	**DAC05-A**	**DAC05-B**	**DAC05-C**	**DAC07**	**DAC09**	**2229**
Aluminum	556.90	450.90	422.90	234.90	184.90	609.90	632.90
Antimony	0.13	-0.01	-0.19	-0.62	0.03	0.00	0.08
Arsenic	1.40	2.80	2.20	-6.10	3.30	3.30	2.00
Barium	3.75	3.83	2.63	1.46	1.06	4.50	3.47
Beryllium	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cadmium	-0.01	0.01	-0.02	-0.10	-0.02	-0.01	-0.02
Chromium	1.25	0.77	-0.17	-3.52	-0.13	0.85	0.73
Cobalt	0.23	0.16	0.15	-0.24	0.03	0.17	0.20
Copper	3.57	3.87	1.67	-5.08	1.67	6.87	1.17
Iron	956.33	776.33	656.33	171.33	310.33	946.33	826.33
Lead	3.82	4.86	3.54	1.61	1.88	4.10	2.34
Manganese	5.66	7.01	7.00	2.13	2.37	6.44	8.63
Mercury	0.06	0.07	0.01	0.00	0.04	0.07	0.07
Molybdenum	1.88	3.09	0.89	-2.32	3.44	3.44	-0.04
Nickel	1.08	0.37	0.28	-0.99	0.17	0.11	-0.16
Selenium	0.08	0.03	-0.03	-0.78	-0.13	-0.09	-0.11
Silver	-0.01	0.00	-0.01	-0.05	0.00	0.00	0.02
Strontium	14.33	-9.57	-21.17	-47.77	-21.77	-8.97	-18.57
Thallium	0.01	0.01	0.00	0.00	0.00	0.01	0.01
Tin	0.78	0.56	0.34	0.04	0.16	0.42	0.43
Titanium	28.40	25.20	20.60	7.60	9.00	32.90	28.70
Vanadium	1.44	1.11	1.14	-0.06	0.25	1.60	1.34
Zinc	-12.00	-5.60	-5.40	-34.50	-9.60	-5.50	-11.30
	2229 (R2)	**2238**	**2243**	**2433**	**2435**	**2441**	
Aluminum	579.90	329.90	563.90	306.90	240.90	208.90	
Antimony	-0.05	-0.03	0.16	0.16	0.10	-0.22	
Arsenic	3.00	-2.70	0.70	-1.10	-1.50	-2.30	
Barium	5.75	0.99	2.24	1.78	1.48	3.63	
Beryllium	0.02	0.01	0.01	0.01	0.01	0.01	
Cadmium	-0.02	0.00	-0.02	-0.05	0.02	-0.05	
Chromium	-0.78	0.71	1.27	1.03	0.41	-0.48	
Cobalt	0.23	0.28	0.32	0.14	0.04	0.07	
Copper	1.77	-4.79	-2.33	-2.23	-4.86	-4.13	
Iron	866.33	433.33	836.33	532.33	463.33	379.33	
Lead	2.23	0.27	1.28	0.52	0.27	0.27	
Manganese	8.83	5.27	4.88	3.80	2.51	1.76	
Mercury	0.03	0.02	0.01	0.00	0.02	0.02	
Molybdenum	0.23	-3.37	-2.20	-2.20	-2.47	-1.95	
Nickel	-0.22	0.06	-0.03	-0.10	-0.38	-0.13	
Selenium	0.08	-0.03	0.26	0.02	0.09	-0.03	
Silver	0.00	0.02	0.01	0.01	0.02	0.00	
Strontium	-18.87	-20.77	-9.47	-17.77	-19.97	-19.97	
Thallium	0.01	0.00	0.01	0.00	0.00	0.00	
Tin	0.39	0.03	0.27	0.18	0.04	0.14	

Tissue bioaccumulation (definitive)—net metals bioaccumulation in mg/dry kg

Titanium	31.50	15.60	26.50	17.00	13.30	12.10
Vanadium	1.45	0.81	1.42	1.02	0.70	0.76
Zinc	-11.40	-17.00	-15.80	-18.60	-21.40	-12.40

Tissue bioaccumulation (definitive)—net PAH bioaccumulation in ng/dry g

	SWZ01-A	SWZ01-B	SWZ01-C	SWZ02	SWZ04	BST01	BST04-A
1-Methylnaphthalene	-4	7.9	-34.3	-5.9	-34.3	10.5	19.6
1-Methylphenanthrene	0	0	0	0	0	0	0
2,3,5-Trimethylnaphthalene	0	0	0	0	0	0	0
2,6-Dimethylnaphthalene	0	0	0	0	0	0	0
2-Methylnaphthalene	-6.8	9	-63.7	-8.6	-15.6	35.3	31.7
Acenaphthene	0	0	0	0	0	0	0
Acenaphthylene	0	0	0	0	0	0	0
Anthracene	0	0	78.1	0	0	0	0
Benz[a]anthracene	0	177.5	288.5	0	0	178.5	355.5
Benzo[a]pyrene	0	257.5	491.5	0	0	337.5	1019.5
Benzo[b]fluoranthene	0	231.5	500.5	0	0	417.5	1169.5
Benzo[e]pyrene	0	184.5	383.5	0	0	308.5	778.5
Benzo[g,h,i]perylene	0	0	0	0	0	133.5	67.1
Benzo[k]fluoranthene	0	322.5	566.5	0	0	293.5	800.5
Biphenyl	0	0	0	0	0	0	0
Chrysene	0	306.5	479.5	0	0	284.5	405.5
Dibenz[a,h]anthracene	0	0	0	0	0	0	0
Fluoranthene	71.4	495.5	722.5	29.1	52.8	302.5	310.5
Fluorene	0	0	0	0	0	0	0
Indeno[1,2,3-c,d]pyrene	0	0	0	0	0	0	67.2
Naphthalene	-40.6	2	-40.6	-4.2	-40.6	51	26.5
Perylene	0	0	0	0	0	98.5	176.5
Phenanthrene	0	0	0	0	0	0	0
Pyrene	91	516.5	787.5	53.3	85.3	441.5	1149.5
Total PAHs (including ND)	111	2510.9	4159.5	63.7	47.6	2892.8	6377.6
	BST04-B	**BST04-C**	**BST04-C (R2)**	**BST05**	**BST06**	**BST07**	**DAC01**
1-Methylnaphthalene	7.9	-34.3	-34.3	-34.3	-34.3	19	-34.3
1-Methylphenanthrene	0	0	0	0	0	0	0
2,3,5-Trimethylnaphthalene	0	0	0	0	0	0	0
2,6-Dimethylnaphthalene	0	0	0	0	0	0	0
2-Methylnaphthalene	9	-63.7	-63.7	13.4	15.1	26.9	9.1
Acenaphthene	0	0	0	0	0	0	0
Acenaphthylene	0	0	0	0	0	0	0
Anthracene	0	78.1	62.3	124.5	0	82.1	0
Benz[a]anthracene	177.5	288.5	265.5	262.5	95.6	481.5	0
Benzo[a]pyrene	257.5	491.5	414.5	258.5	0	599.5	0
Benzo[b]fluoranthene	231.5	500.5	598.5	322.5	175.5	627.5	0
Benzo[e]pyrene	184.5	383.5	317.5	185.5	0	428.5	0
Benzo[g,h,i]perylene	0	0	0	0	0	0	0
Benzo[k]fluoranthene	322.5	566.5	514.5	296.5	234.5	618.5	0
Biphenyl	0	0	0	0	0	0	0
Chrysene	306.5	479.5	420.5	331.5	98.5	692.5	0
Dibenz[a,h]anthracene	0	0	0	0	0	0	0
Fluoranthene	495.5	722.5	647.5	520.5	157.5	2029.5	0
Fluorene	0	0	0	0	0	0	0
Indeno[1,2,3-c,d]pyrene	0	0	0	0	0	0	0
Naphthalene	2	-40.6	-40.6	-40.6	30.5	20.6	-40.6
Perylene	0	0	0	0	0	96.6	0
Phenanthrene	0	0	0	0	0	55.9	0
Pyrene	516.5	787.5	730.5	397.5	144.5	1449.5	0
Total PAHs (including ND)	2510.9	4159.5	3832.7	2638	917.4	7228.1	-65.8
	DAC03	**DAC05-A**	**DAC05-B**	**DAC05-C**	**DAC07**	**DAC09**	**2229**
1-Methylnaphthalene	-34.3	-34.3	-34.3	-34.3	-34.3	15	-34.3
1-Methylphenanthrene	0	0	0	0	0	0	0
2,3,5-Trimethylnaphthalene	0	0	0	0	0	0	0
2,6-Dimethylnaphthalene	0	0	0	0	0	0	0

Tissue bioaccumulation (definitive)—net PAH bioaccumulation in ng/dry g

2-Methylnaphthalene	-9.8	6	-38.2	-23.6	-23.1	34.2	-43.5
Acenaphthene	0	0	0	0	0	0	0
Acenaphthylene	0	0	0	0	0	0	0
Anthracene	0	0	0	0	0	0	0
Benz[a]anthracene	0	0	0	0	31.3	0	22.5
Benzo[a]pyrene	0	0	0	0	0	0	0
Benzo[b]fluoranthene	39.6	34.1	87.2	40.3	71.9	0	54.9
Benzo[e]pyrene	0	0	0	0	0	0	0
Benzo[g,h,i]perylene	0	0	0	0	0	0	0
Benzo[k]fluoranthene	38.1	45.9	63.8	23.5	48.2	0	44.5
Biphenyl	0	0	0	0	0	0	0
Chrysene	0	0	0	0	33.2	0	0
Dibenz[a,h]anthracene	0	0	0	0	0	0	0
Fluoranthene	0	0	44.9	0	27	0	34.8
Fluorene	0	0	0	0	0	0	0
Indeno[1,2,3-c,d]pyrene	0	0	0	0	0	0	0
Naphthalene	-2.5	-40.6	-6.1	-4	-7.9	31.7	-40.6
Perylene	0	0	0	0	0	0	0
Phenanthrene	0	0	0	0	0	0	0
Pyrene	0	0	50.3	0	23.7	0	0
Total PAHs (including ND)	31.1	11.1	167.6	1.9	170	80.9	38.3

	2238	**2243**	**2433**	**2435**	**2435 (R2)**	**2441**
1-Methylnaphthalene	-34.3	-34.3	13.6	-34.3	-34.3	15.8
1-Methylphenanthrene	0	0	0	0	0	0
2,3,5-Trimethylnaphthalene	0	0	0	0	0	0
2,6-Dimethylnaphthalene	0	0	0	0	0	0
2-Methylnaphthalene	-8.7	-37.6	30.9	46.8	13.1	46.8
Acenaphthene	0	0	0	0	0	0
Acenaphthylene	0	0	0	0	0	0
Anthracene	0	0	0	0	0	0
Benz[a]anthracene	0	0	0	0	0	331.5
Benzo[a]pyrene	0	0	0	0	0	281.5
Benzo[b]fluoranthene	0	0	0	0	0	298.5
Benzo[e]pyrene	0	0	0	0	0	243.5
Benzo[g,h,i]perylene	0	0	0	0	0	96.3
Benzo[k]fluoranthene	0	0	0	0	0	273.5
Biphenyl	0	0	0	0	0	0
Chrysene	0	0	0	0	0	364.5
Dibenz[a,h]anthracene	0	0	0	0	0	0
Fluoranthene	0	0	0	0	0	373.5
Fluorene	0	0	0	0	0	0
Indeno[1,2,3-c,d]pyrene	0	0	0	0	0	0
Naphthalene	6.7	-11.5	27.8	37.2	18.2	37.6
Perylene	0	0	0	0	0	32.3
Phenanthrene	0	0	0	0	0	0
Pyrene	0	0	0	0	0	367.5
Total PAHs (including ND)	-36.3	-83.4	72.3	49.7	-3	2762.8

Appendix J. Calculated doses of chemicals in clams and sediment to avian receptor (lesser scaup).

Station	Analyte	Tissue concentration (mg/kg) (a)	Dose from tissue (mg/d) (b)	Sediment concentration (mg/kg)	Dose from sediment (mg/d) (c)	Total Dose (mg/kg/d) (d)	TRV high	TRV low	dose: TRV high ratio	dose: TRV low ratio
SWZ 01-A	Arsenic	21.9	1.693	6.95	0.028	1.912	22.01	5.5	0.087	0.348
SWZ 01-A	Cadmium	0.19	0.015	0.57	0.002	0.019	10.43	0.08	0.002	0.236
SWZ 01-A	Copper	21.6	1.670	121	0.492	2.402	52.26	2.3	0.046	1.044
SWZ 01-A	Manganese	8.79	0.679	219	0.891	1.745	776	77.6	0.002	0.022
SWZ 01-A	Mercury	0.25	0.019	0.54	0.002	0.024	0.18	0.039	0.133	0.613
SWZ 01-A	Nickel	2.77	0.214	15.7	0.064	0.309	56.26	1.38	0.005	0.224
SWZ 01-A	Selenium	1.85	0.143	0.46	0.002	0.161	0.93	0.23	0.173	0.700
SWZ 01-A	Zinc	75.5	5.836	313	1.273	7.899	172	17.2	0.046	0.459
SWZ 01-B	Arsenic	18.3	1.415	6.95	0.028	1.603	22.01	5.5	0.073	0.291
SWZ 01-B	Cadmium	0.15	0.012	0.57	0.002	0.015	10.43	0.08	0.001	0.193
SWZ 01-B	Copper	17.5	1.353	121	0.492	2.050	52.26	2.3	0.039	0.891
SWZ 01-B	Manganese	7.37	0.570	219	0.891	1.623	776	77.6	0.002	0.021
SWZ 01-B	Mercury	0.0025	0.000	0.54	0.002	0.003	0.18	0.039	0.015	0.068
SWZ 01-B	Nickel	3.17	0.245	15.7	0.064	0.343	56.26	1.38	0.006	0.249
SWZ 01-B	Selenium	1.66	0.128	0.46	0.002	0.145	0.93	0.23	0.156	0.629
SWZ 01-B	Zinc	68.1	5.264	313	1.273	7.264	172	17.2	0.042	0.422
SWZ 01-C	Arsenic	23.7	1.832	6.95	0.028	2.067	22.01	5.5	0.094	0.376
SWZ 01-C	Cadmium	0.15	0.012	0.57	0.002	0.015	10.43	0.08	0.001	0.193
SWZ 01-C	Copper	32.7	2.528	121	0.492	3.355	52.26	2.3	0.064	1.459
SWZ 01-C	Manganese	6.2	0.479	219	0.891	1.522	776	77.6	0.002	0.020
SWZ 01-C	Mercury	0.01	0.001	0.54	0.002	0.003	0.18	0.039	0.018	0.085
SWZ 01-C	Nickel	2.66	0.206	15.7	0.064	0.299	56.26	1.38	0.005	0.217
SWZ 01-C	Selenium	1.96	0.152	0.46	0.002	0.170	0.93	0.23	0.183	0.741
SWZ 01-C	Zinc	70.9	5.481	313	1.273	7.504	172	17.2	0.044	0.436
SWZ 02	Arsenic	22.3	1.724	5.14	0.021	1.939	22.01	5.5	0.088	0.352
SWZ 02	Cadmium	0.17	0.013	0.5	0.002	0.017	10.43	0.08	0.002	0.211
SWZ 02	Copper	22.5	1.739	86.7	0.353	2.324	52.26	2.3	0.044	1.011
SWZ 02	Manganese	6.21	0.480	175	0.712	1.324	776	77.6	0.002	0.017
SWZ 02	Mercury	0.12	0.009	0.4	0.002	0.012	0.18	0.039	0.067	0.311
SWZ 02	Nickel	3.25	0.251	11.7	0.048	0.332	56.26	1.38	0.006	0.241
SWZ 02	Selenium	1.74	0.135	35	0.142	0.308	0.93	0.23	0.331	1.338
SWZ 02	Zinc	61.7	4.769	290	1.180	6.610	172	17.2	0.038	0.384
SWZ 04	Arsenic	19.1	1.476	8.73	0.036	1.680	22.01	5.5	0.076	0.305
SWZ 04	Cadmium	0.22	0.017	1.07	0.004	0.024	10.43	0.08	0.002	0.297
SWZ 04	Copper	18.3	1.415	144	0.586	2.223	52.26	2.3	0.043	0.966
SWZ 04	Manganese	7.74	0.598	271	1.102	1.890	776	77.6	0.002	0.024
SWZ 04	Mercury	0.09	0.007	0.72	0.003	0.011	0.18	0.039	0.061	0.282
SWZ 04	Nickel	2.51	0.194	16.7	0.068	0.291	56.26	1.38	0.005	0.211
SWZ 04	Selenium	1.78	0.138	0.53	0.002	0.155	0.93	0.23	0.167	0.675
SWZ 04	Zinc	80.6	6.230	346	1.408	8.487	172	17.2	0.049	0.493
BST01	Arsenic	20	1.546	9.86	0.040	1.762	22.01	5.5	0.080	0.320
BST01	Cadmium	0.14	0.011	0.7	0.003	0.015	10.43	0.08	0.001	0.190
BST01	Copper	16	1.237	174	0.708	2.161	52.26	2.3	0.041	0.939
BST01	Manganese	6.03	0.466	328	1.334	2.000	776	77.6	0.003	0.026
BST01	Mercury	0.02	0.002	0.86	0.003	0.006	0.18	0.039	0.031	0.144
BST01	Nickel	1.71	0.132	19.8	0.081	0.236	56.26	1.38	0.004	0.171
BST01	Selenium	1.76	0.136	0.61	0.002	0.154	0.93	0.23	0.166	0.669
BST01	Zinc	55.1	4.259	287	1.168	6.030	172	17.2	0.035	0.351
BST04-A	Arsenic	18.9	1.461	9.85	0.040	1.668	22.01	5.5	0.076	0.303
BST04-A	Cadmium	0.15	0.012	1.05	0.004	0.018	10.43	0.08	0.002	0.220
BST04-A	Copper	18	1.391	211	0.858	2.500	52.26	2.3	0.048	1.087
BST04-A	Manganese	7.82	0.604	302	1.229	2.037	776	77.6	0.003	0.026
BST04-A	Mercury	0.04	0.003	5.17	0.021	0.027	0.18	0.039	0.149	0.687
BST04-A	Nickel	2.72	0.210	20.6	0.084	0.327	56.26	1.38	0.006	0.237
BST04-A	Selenium	1.57	0.121	0.66	0.003	0.138	0.93	0.23	0.148	0.599

Station	Analyte	Tissue concentration (mg/kg) (a)	Dose from tissue (mg/d) (b)	Sediment concentration (mg/kg)	Dose from sediment (mg/d) (c)	Total Dose (mg/kg/d) (d)	TRV high	TRV low	dose: TRV high ratio	dose: TRV low ratio
BST04-A	Zinc	54.4	4.205	270	1.098	5.893	172	17.2	0.034	0.343
BST04-B	Arsenic	21.1	1.631	9.85	0.040	1.857	22.01	5.5	0.084	0.338
BST04-B	Cadmium	0.16	0.012	1.05	0.004	0.018	10.43	0.08	0.002	0.231
BST04-B	Copper	17	1.314	211	0.858	2.414	52.26	2.3	0.046	1.049
BST04-B	Manganese	5.89	0.455	302	1.229	1.871	776	77.6	0.002	0.024
BST04-B	Mercury	0.03	0.002	5.17	0.021	0.026	0.18	0.039	0.144	0.665
BST04-B	Nickel	2.59	0.200	20.6	0.084	0.316	56.26	1.38	0.006	0.229
BST04-B	Selenium	1.92	0.148	0.66	0.003	0.168	0.93	0.23	0.181	0.730
BST04-B	Zinc	73.3	5.666	270	1.098	7.516	172	17.2	0.044	0.437
BST04-C	Arsenic	22.7	1.755	9.85	0.040	1.994	22.01	5.5	0.091	0.363
BST04-C	Cadmium	0.17	0.013	1.05	0.004	0.019	10.43	0.08	0.002	0.242
BST04-C	Copper	22.5	1.739	211	0.858	2.886	52.26	2.3	0.055	1.255
BST04-C	Manganese	6.79	0.525	302	1.229	1.948	776	77.6	0.003	0.025
BST04-C	Mercury	0.02	0.002	5.17	0.021	0.025	0.18	0.039	0.139	0.643
BST04-C	Nickel	2.51	0.194	20.6	0.084	0.309	56.26	1.38	0.005	0.224
BST04-C	Selenium	1.91	0.148	0.66	0.003	0.167	0.93	0.23	0.180	0.726
BST04-C	Zinc	75.8	5.859	270	1.098	7.731	172	17.2	0.045	0.449
BST05	Arsenic	19.1	1.476	7.34	0.030	1.674	22.01	5.5	0.076	0.304
BST05	Cadmium	0.11	0.009	0.17	0.001	0.010	10.43	0.08	0.001	0.128
BST05	Copper	16.9	1.306	90.7	0.369	1.861	52.26	2.3	0.036	0.809
BST05	Manganese	8.76	0.677	268	1.090	1.964	776	77.6	0.003	0.025
BST05	Mercury	0.0025	0.000	1.01	0.004	0.005	0.18	0.039	0.027	0.123
BST05	Nickel	2.1	0.162	12.5	0.051	0.237	56.26	1.38	0.004	0.172
BST05	Selenium	1.47	0.114	0.44	0.002	0.128	0.93	0.23	0.138	0.558
BST05	Zinc	55.1	4.259	165	0.671	5.478	172	17.2	0.032	0.319
BST06	Arsenic	18.7	1.446	6.93	0.028	1.637	22.01	5.5	0.074	0.298
BST06	Cadmium	0.11	0.009	0.22	0.001	0.010	10.43	0.08	0.001	0.131
BST06	Copper	16	1.237	86.2	0.351	1.764	52.26	2.3	0.034	0.767
BST06	Manganese	7.96	0.615	256	1.041	1.841	776	77.6	0.002	0.024
BST06	Mercury	0.01	0.001	0.75	0.003	0.004	0.18	0.039	0.024	0.109
BST06	Nickel	1.95	0.151	11.7	0.048	0.220	56.26	1.38	0.004	0.160
BST06	Selenium	1.81	0.140	0.41	0.002	0.157	0.93	0.23	0.169	0.684
BST06	Zinc	59.4	4.592	158	0.643	5.816	172	17.2	0.034	0.338
BST07	Arsenic	21.2	1.639	12.3	0.050	1.876	22.01	5.5	0.085	0.341
BST07	Cadmium	0.12	0.009	0.43	0.002	0.012	10.43	0.08	0.001	0.153
BST07	Copper	18	1.391	183	0.744	2.373	52.26	2.3	0.045	1.032
BST07	Manganese	6.61	0.511	364	1.481	2.213	776	77.6	0.003	0.029
BST07	Mercury	0.0025	0.000	1.02	0.004	0.005	0.18	0.039	0.027	0.124
BST07	Nickel	1.79	0.138	19.6	0.080	0.242	56.26	1.38	0.004	0.176
BST07	Selenium	1.49	0.115	0.65	0.003	0.131	0.93	0.23	0.141	0.569
BST07	Zinc	53.4	4.128	297	1.208	5.929	172	17.2	0.034	0.345
DAC 01	Arsenic	18.4	1.422	12.2	0.050	1.635	22.01	5.5	0.074	0.297
DAC 01	Cadmium	0.13	0.010	0.47	0.002	0.013	10.43	0.08	0.001	0.166
DAC 01	Copper	18.8	1.453	181	0.736	2.433	52.26	2.3	0.047	1.058
DAC 01	Manganese	8.52	0.659	333	1.355	2.237	776	77.6	0.003	0.029
DAC 01	Mercury	0.13	0.010	1.02	0.004	0.016	0.18	0.039	0.088	0.405
DAC 01	Nickel	2.65	0.205	23.2	0.094	0.332	56.26	1.38	0.006	0.241
DAC 01	Selenium	1.48	0.114	0.58	0.002	0.130	0.93	0.23	0.140	0.564
DAC 01	Zinc	61.4	4.746	297	1.208	6.616	172	17.2	0.038	0.385
DAC 03	Arsenic	18.1	1.399	10.6	0.043	1.603	22.01	5.5	0.073	0.291
DAC 03	Cadmium	0.16	0.012	0.57	0.002	0.016	10.43	0.08	0.002	0.204
DAC 03	Copper	17.3	1.337	146	0.594	2.146	52.26	2.3	0.041	0.933
DAC 03	Manganese	8.43	0.652	301	1.224	2.085	776	77.6	0.003	0.027
DAC 03	Mercury	0.07	0.005	1.12	0.005	0.011	0.18	0.039	0.062	0.284
DAC 03	Nickel	3.26	0.252	36.8	0.150	0.446	56.26	1.38	0.008	0.323
DAC 03	Selenium	1.78	0.138	0.52	0.002	0.155	0.93	0.23	0.167	0.675
DAC 03	Zinc	60.8	4.700	269	1.094	6.438	172	17.2	0.037	0.374
DAC 05-A	Arsenic	19.5	1.507	5.92	0.024	1.702	22.01	5.5	0.077	0.309
DAC 05-A	Cadmium	0.18	0.014	0.49	0.002	0.018	10.43	0.08	0.002	0.221

Station	Analyte	Tissue concentration (mg/kg) (a)	Dose from tissue (mg/d) (b)	Sediment concentration (mg/kg)	Dose from sediment (mg/d) (c)	Total Dose (mg/kg/d) (d)	TRV high	TRV low	dose: TRV high ratio	dose: TRV low ratio
DAC 05-A	Copper	17.6	1.360	84.6	0.344	1.894	52.26	2.3	0.036	0.823
DAC 05-A	Manganese	9.78	0.756	193	0.785	1.712	776	77.6	0.002	0.022
DAC 05-A	Mercury	0.08	0.006	0.46	0.002	0.009	0.18	0.039	0.050	0.229
DAC 05-A	Nickel	2.55	0.197	13	0.053	0.278	56.26	1.38	0.005	0.201
DAC 05-A	Selenium	1.73	0.134	0.31	0.001	0.150	0.93	0.23	0.161	0.652
DAC 05-A	Zinc	67.2	5.195	192	0.781	6.640	172	17.2	0.039	0.386
DAC 05-B	Arsenic	18.9	1.461	5.92	0.024	1.650	22.01	5.5	0.075	0.300
DAC 05-B	Cadmium	0.15	0.012	0.49	0.002	0.015	10.43	0.08	0.001	0.189
DAC 05-B	Copper	15.4	1.190	84.6	0.344	1.705	52.26	2.3	0.033	0.741
DAC 05-B	Manganese	9.77	0.755	193	0.785	1.711	776	77.6	0.002	0.022
DAC 05-B	Mercury	0.02	0.002	0.46	0.002	0.004	0.18	0.039	0.021	0.097
DAC 05-B	Nickel	2.46	0.190	13	0.053	0.270	56.26	1.38	0.005	0.196
DAC 05-B	Selenium	1.67	0.129	0.31	0.001	0.145	0.93	0.23	0.156	0.630
DAC 05-B	Zinc	67.4	5.210	192	0.781	6.657	172	17.2	0.039	0.387
DAC 05-C	Arsenic	10.6	0.819	5.92	0.024	0.937	22.01	5.5	0.043	0.170
DAC 05-C	Cadmium	0.07	0.005	0.49	0.002	0.008	10.43	0.08	0.001	0.103
DAC 05-C	Copper	8.65	0.669	84.6	0.344	1.125	52.26	2.3	0.022	0.489
DAC 05-C	Manganese	4.9	0.379	193	0.785	1.293	776	77.6	0.002	0.017
DAC 05-C	Mercury	0.01	0.001	0.46	0.002	0.003	0.18	0.039	0.016	0.075
DAC 05-C	Nickel	1.19	0.092	13	0.053	0.161	56.26	1.38	0.003	0.117
DAC 05-C	Selenium	0.92	0.071	0.31	0.001	0.080	0.93	0.23	0.086	0.350
DAC 05-C	Zinc	38.3	2.961	192	0.781	4.157	172	17.2	0.024	0.242
DAC 07	Arsenic	20	1.546	7.28	0.030	1.751	22.01	5.5	0.080	0.318
DAC 07	Cadmium	0.15	0.012	0.32	0.001	0.014	10.43	0.08	0.001	0.179
DAC 07	Copper	15.4	1.190	97.2	0.395	1.762	52.26	2.3	0.034	0.766
DAC 07	Manganese	5.14	0.397	248	1.009	1.562	776	77.6	0.002	0.020
DAC 07	Mercury	0.05	0.004	0.73	0.003	0.008	0.18	0.039	0.042	0.195
DAC 07	Nickel	2.35	0.182	14.7	0.060	0.268	56.26	1.38	0.005	0.194
DAC 07	Selenium	1.57	0.121	0.33	0.001	0.136	0.93	0.23	0.147	0.593
DAC 07	Zinc	63.2	4.885	188	0.765	6.278	172	17.2	0.036	0.365
DAC 09	Arsenic	20	1.546	7.15	0.029	1.750	22.01	5.5	0.080	0.318
DAC 09	Cadmium	0.16	0.012	0.31	0.001	0.015	10.43	0.08	0.001	0.189
DAC 09	Copper	20.6	1.592	93.3	0.380	2.191	52.26	2.3	0.042	0.953
DAC 09	Manganese	9.21	0.712	251	1.021	1.926	776	77.6	0.002	0.025
DAC 09	Mercury	0.08	0.006	0.69	0.003	0.010	0.18	0.039	0.055	0.256
DAC 09	Nickel	2.29	0.177	14	0.057	0.260	56.26	1.38	0.005	0.188
DAC 09	Selenium	1.61	0.124	0.38	0.002	0.140	0.93	0.23	0.151	0.609
DAC 09	Zinc	67.3	5.202	188	0.765	6.630	172	17.2	0.039	0.385
2229	Arsenic	18.7	1.446	4.5	0.018	1.626	22.01	5.5	0.074	0.296
2229	Cadmium	0.15	0.012	0.11	0.000	0.013	10.43	0.08	0.001	0.167
2229	Copper	14.9	1.152	42	0.171	1.470	52.26	2.3	0.028	0.639
2229	Manganese	11.4	0.881	162	0.659	1.711	776	77.6	0.002	0.022
2229	Mercury	0.08	0.006	0.32	0.001	0.008	0.18	0.039	0.046	0.213
2229	Nickel	2.02	0.156	5.9	0.024	0.200	56.26	1.38	0.004	0.145
2229	Selenium	1.59	0.123	0.3	0.001	0.138	0.93	0.23	0.148	0.600
2229	Zinc	61.5	4.754	103	0.419	5.748	172	17.2	0.033	0.334
2238	Arsenic	14	1.082	6.91	0.028	1.234	22.01	5.5	0.056	0.224
2238	Cadmium	0.17	0.013	0.23	0.001	0.016	10.43	0.08	0.001	0.196
2238	Copper	8.94	0.691	74	0.301	1.102	52.26	2.3	0.021	0.479
2238	Manganese	8.04	0.621	317	1.290	2.123	776	77.6	0.003	0.027
2238	Mercury	0.03	0.002	0.35	0.001	0.004	0.18	0.039	0.023	0.107
2238	Nickel	2.24	0.173	14.6	0.059	0.258	56.26	1.38	0.005	0.187
2238	Selenium	1.67	0.129	0.43	0.002	0.145	0.93	0.23	0.156	0.632
2238	Zinc	55.8	4.313	222	0.903	5.796	172	17.2	0.034	0.337
2243	Arsenic	17.4	1.345	4.11	0.017	1.513	22.01	5.5	0.069	0.275
2243	Cadmium	0.15	0.012	0.09	0.000	0.013	10.43	0.08	0.001	0.166
2243	Copper	11.4	0.881	50.7	0.206	1.208	52.26	2.3	0.023	0.525
2243	Manganese	7.65	0.591	156	0.635	1.362	776	77.6	0.002	0.018
2243	Mercury	0.02	0.002	0.28	0.001	0.003	0.18	0.039	0.017	0.076

Station	Analyte	Tissue concentration (mg/kg) (a)	Dose from tissue (mg/d) (b)	Sediment concentration (mg/kg)	Dose from sediment (mg/d) (c)	Total Dose (mg/kg/d) (d)	TRV high	TRV low	dose: TRV high ratio	dose: TRV low ratio
2243	Nickel	2.15	0.166	6.18	0.025	0.213	56.26	1.38	0.004	0.154
2243	Selenium	1.96	0.152	0.24	0.001	0.169	0.93	0.23	0.182	0.737
2243	Zinc	57	4.406	112	0.456	5.402	172	17.2	0.031	0.314
2433	Arsenic	15.6	1.206	4.54	0.018	1.360	22.01	5.5	0.062	0.247
2433	Cadmium	0.12	0.009	0.21	0.001	0.011	10.43	0.08	0.001	0.141
2433	Copper	11.5	0.889	46.5	0.189	1.198	52.26	2.3	0.023	0.521
2433	Manganese	6.57	0.508	209	0.850	1.509	776	77.6	0.002	0.019
2433	Mercury	0.01	0.001	0.26	0.001	0.002	0.18	0.039	0.011	0.052
2433	Nickel	2.08	0.161	8.5	0.035	0.217	56.26	1.38	0.004	0.157
2433	Selenium	1.72	0.133	0.3	0.001	0.149	0.93	0.23	0.160	0.648
2433	Zinc	54.2	4.190	111	0.452	5.157	172	17.2	0.030	0.300
2435	Arsenic	15.2	1.175	2.67	0.011	1.318	22.01	5.5	0.060	0.240
2435	Cadmium	0.19	0.015	0.09	0.000	0.017	10.43	0.08	0.002	0.209
2435	Copper	8.87	0.686	19.8	0.081	0.851	52.26	2.3	0.016	0.370
2435	Manganese	5.28	0.408	141	0.574	1.091	776	77.6	0.001	0.014
2435	Mercury	0.03	0.002	0.16	0.001	0.003	0.18	0.039	0.018	0.085
2435	Nickel	1.8	0.139	4.96	0.020	0.177	56.26	1.38	0.003	0.128
2435	Selenium	1.79	0.138	0.18	0.001	0.155	0.93	0.23	0.166	0.672
2435	Zinc	51.4	3.973	49.3	0.201	4.638	172	17.2	0.027	0.270
2441	Arsenic	14.4	1.113	7.63	0.031	1.271	22.01	5.5	0.058	0.231
2441	Cadmium	0.12	0.009	0.31	0.001	0.012	10.43	0.08	0.001	0.146
2441	Copper	9.6	0.742	80.9	0.329	1.190	52.26	2.3	0.023	0.517
2441	Manganese	4.53	0.350	362	1.473	2.025	776	77.6	0.003	0.026
2441	Mercury	0.03	0.002	0.31	0.001	0.004	0.18	0.039	0.022	0.102
2441	Nickel	2.05	0.158	15.9	0.065	0.248	56.26	1.38	0.004	0.180
2441	Selenium	1.67	0.129	0.85	0.003	0.147	0.93	0.23	0.158	0.640
2441	Zinc	60.4	4.669	149	0.606	5.861	172	17.2	0.034	0.341

(a) Non-detected mercury concentrations were replaced with one-half the detection limit (0.0025).
(b) Calculated *Macoma* ingestion rate for 0.9 kg scaup is 0.0773 kg/day.
(c) Calculated incidental sediment ingestion rate for 0.9 kg scaup is 0.004068 kg/day (5% of total food intake).
(d) Assumes a body mass of 0.9 kg (ref___)