Appendix E. Data Selection for the RI Baseline Surface Sediment Dataset, Data Quality Review Summaries, Data Management Rules, Additional Statistical Information, Summary Data Tables, and Arsenic and cPAH Concentrations in Sediment Associated with Tissue RBTCs

E.1 Data Selection for the RI Baseline Surface Sediment Dataset

Baseline surface sediment data were used in the remedial investigation (RI) to describe the nature and extent of contamination in surface sediment and for analysis of risks associated with surface sediment in the baseline HHRA and ERA. These baseline surface sediment data represent conditions in the LDW prior to removal actions at the Duwamish/Diagonal early action been developed continuously over the course of the LDW RI process as new data from the LDW have been obtained. The baseline surface sediment dataset used in the HHRA and ERA was finalized prior to the collection of Round 3 surface sediment data in October 2006, whereas the baseline surface sediment dataset used for describing the nature and extent of contamination in the RI includes Round 3 data. The rationale for the inclusion or exclusion of certain data has been documented in memoranda to the US Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) (Windward 2005d, e, 2006).

This appendix describes the process for selecting surface sediment chemistry data for the RI baseline dataset in greater detail than presented in Section 4.1 of the RI. The following criteria were used to determine which surface sediment data would be included in the RI baseline dataset (Windward 2006):

- The data must meet the data quality objectives (DQOs), as described in Section 4.1.1 of the RI.
- Surface sediment samples collected from areas that have subsequently been subject to maintenance dredging activities were not included.
- If a sediment sampling location was re-sampled at a later date within 10 ft of the original location, either as part of a monitoring program or to characterize nature and extent of contamination, the more recent data replaced the older data. However, surface sediment samples collected before removal actions at the Duwamish/Diagonal EAA and the Boeing Developmental Center south storm drain outfall were included to represent baseline (pre-early action) conditions.
- Sediment samples collected within 200 ft of the perimeter of the Duwamish/Diagonal EAA after the removal action were not included because the sediment could have been influenced by the removal action.
- The sediment sample depth interval must be the top 15 cm or less. At 24 locations in the Norfolk area, samples were collected from the 0-to-2-cm depth in addition to the 0-to-10-cm depth on either the same date or a later date. Only data from the 0-to-10-cm depth were included in the RI baseline dataset.

Subsections E.1.1 through E.1.3 below specifically address application of these criteria to the following types of sediment chemistry data: 1) data collected from dredged areas, 2) data collected from re-sampled locations that are less than 10 ft apart, and 3) data collected from EAAs at Duwamish/Diagonal and Boeing Developmental Center south storm drain outfall near the Norfolk combined sewer overflow (CSO). Tables in Section E.2.0 list chemistry datasets acceptable and not acceptable for all uses in the RI, including data quality review summaries. Section E.2.0 also lists sediment samples and sampling events excluded from the RI baseline dataset (Windward 2005d, e, 2006, 2007). Section E.3.0 describes data management rules and Section E.4.0 presents tables of summary statistics for surface sediment, subsurface sediment, tissue, surface water, seep water, and porewater chemistry data used in both the risk assessments and the RI.

E.1.1 SURFACE SEDIMENT DATA COLLECTED FROM DREDGED AREAS

Surface sediment data that were collected within dredged area boundaries prior to dredging were excluded from the RI baseline surface sediment dataset because they are not representative of present conditions. This decision was originally documented in the Phase 1 RI (Windward 2003a). Table E.1-1 and Map 2-4 shows dredge events that were conducted since 1986 and Maps 4-7a through 4-7d show all dredging events that took place outside the navigation channel between 1992 and 2005. Specific locations and the samples associated with those locations that were excluded because of these dredging events are listed in Section E.2.0.

There are two exceptions to the dredge exclusion statement above, both associated with EAAs at Duwamish/Diagonal and Boeing Developmental Center south storm drain outfall (Windward 2003b), as noted in Table E.1-1. The relationship between the dredging associated with these two EAAs and the RI baseline surface sediment dataset is described in Section E.1.3.

Table E.1-1. Dredging events outside of navigation channel

DREDGING EVENT	YEAR OF DREDGING	LOCATION (RIVER MILE)
Morton	1992	RM 2.86 – RM 2.97 west
South Park Marina	1993	RM 3.36 – RM 3.44 west
Lone Star Northwest	1993	RM 1.43 – RM 1.52 west
Terminal 115	1993	RM 1.78 – RM 1.95 west
Lone Star – Hardie/Kaiser	1996	RM 1.55 – RM 1.75 east
Crowley	1996	RM 2.8 – RM 2.85 east
Hurlen-Boyer	1998	RM 2.39 – RM 2.49 west and RM 2.64 – RM 2.77 west
James Hardie Gypsum	1999	RM 1.56 – RM 1.75 east
Duwamish Yacht Club	1999	RM 4.03 – RM 4.15 west
Norfolk (EBDRP)	1999	RM 4.85 – RM 4.95 east
Glacier Ready-mix Facility	2001	RM 1.7 east
Boeing Developmental Center south storm drain outfall[a]	2003	RM 4.9 east

DREDGING EVENT	YEAR OF DREDGING	LOCATION (RIVER MILE)
Duwamish/Diagonal[a]	2003/2004	RM 0.4 – RM 0.6 east
Boyer		RM 2.45 – RM 2.47 west
Delta Marine	2004	RM 4.17 – RM 4.24 west
Lehigh Northwest	2004	RM 1.02 – RM 1.09 east
Terminal 103	2005	RM 0.0 – RM 0.07 west
Glacier NW	2005	RM 1.42 – RM 1.54 west

[a] Data associated with this removal action were handled differently in assembling the RI baseline sediment dataset than data associated with the other dredging events listed in this table, as described in Section E.1.3.

EBDRP – Elliott Bay/Duwamish Restoration Program

RM – river mile

In addition to the dredging events listed in Table E.1-1, upstream portions of the Lower Duwamish Waterway (LDW) navigation channel between river mile (RM) 3.35 and the Upper Turning Basin at RM 4.7 have been dredged periodically by the US Army Corps of Engineers (USACE) to maintain sufficient depth for vessel traffic and to serve as a sediment trap for sediments entering the LDW from upstream. The maintenance dredging events that have occurred in this portion of the navigation channel since 1990 are listed in Table E.1-2. The upstream portion of the LDW between RM 4.2 and RM 4.7 is dredged frequently (i.e., every 2 to 4 years) because sediments entering the LDW from the upper Duwamish and Green rivers are deposited in and near the Upper Turning Basin. All surface sediment samples collected from the navigation channel and Upper Turning Basin from approximately RM 4.2 to RM 4.7 were included in the baseline dataset RI because they were assumed to represent "current" conditions given the frequent dredging of this area.

The sediment in this region of the LDW navigation channel (e.g., RM 4.2 to RM 4.7) generally does not contain chemicals at concentrations greater than the Dredged Material Management Program (DMMP) guidelines and is therefore suitable for open-water disposal in Elliott Bay. Surface sediment samples that were collected from the navigation channel prior to dredging in 1999 between RM 3.35 and RM 4.2, an area that has not been dredged frequently, were excluded from the RI baseline surface sediment dataset because these sediments do not represent current conditions. This convention was originally adopted during the Phase 1 RI (Windward 2003a) as a result of meetings between the Lower Duwamish Waterway Group (LDWG), the US EPA, Ecology, and the USACE.

Table E.1-2. Navigation channel dredging events conducted by the USACE

YEAR	LOCATION (RIVER MILE)
1990	RM 4.0 – RM 4.65
1992	RM 3.35 – RM 4.65
1994	RM 4.2 – RM 4.65
1996	RM 4.18 – RM 4.6
1997	RM 4.2 – RM 4.6
1999	RM 3.35 – RM 4.65
2002	RM 4.3 – RM 4.65
2004	RM 4.3 – RM 4.65

E.1.2 SURFACE SEDIMENT DATA COLLECTED FROM RESAMPLED LOCATIONS

The Phase 2 surface sediment sampling conducted in the LDW in 2005 and 2006 included many sampling locations that were intended to re-occupy previously sampled locations (Windward 2005a, b, c). The primary rationale for resampling these locations was to evaluate whether elevated surface sediment chemical concentrations that existed in the past still exist and to test for toxicity at some locations with historically elevated chemical concentrations (Windward 2005c). Historical surface sampling locations have also been re-sampled for similar reasons during other more recent surface sediment sampling events conducted either by a subset of LDWG members or by other parties. For the purposes of defining the RI baseline surface sediment dataset, surface sediment chemistry data from previously sampled locations within 10 ft of a more recent sediment sampling location were not included in the RI baseline dataset; they were superseded and replaced by the corresponding newer data from those locations because it was assumed that the more recent results would more accurately represent current conditions.

Because there is inherent measurement error[1] in the differential global positioning systems used in the sampling surveys, the exact locations of two samples with coordinates within 10 ft of each other cannot be determined. LDWG assumed that two samples with coordinates within 10 ft of each other represented the same location.[2] If the coordinates for the newer sampling location were more than 10 ft from the original coordinates, it was not considered a true reoccupation and was evaluated as a separate station.

[1] The differential global positioning system used for Phase 1 and Phase 2 surface sediment sampling has a measurement error of approximately 3-6 ft.

[2] Given the inherent measurement error, it is possible that samples ostensibly collected within 10 ft of each other may have been less than or more than 10 ft apart, but the distance likely did not exceed 20 ft for samples collected after 2001. Prior to 2001, GPS technology was less accurate so measurement errors may have been greater.

Table E.1-3 presents a list of all the newer surface sediment samples that superseded older surface sediment samples from locations within 10 ft. In some cases among the historical data, as shown in Table E.1-3, more than one sample was collected at a single location. In other cases, two samples from two different events or multiple samples from a single event[3] were collected within 10 ft of a more recently sampled location. In such cases, all the older samples were superseded and replaced by the newer sample. If an older sample was replaced by a newer sample, results for all analytes in the older sample were deleted and replaced by results for all analytes in the newer sample. In some cases, the newer sample was analyzed for fewer analytes than was the older sample. At one of the locations where this occurred (SD-DUW90 at RM 3.6 within the Boeing Plant 2/Jorgensen Forge EAA), the lead concentration (1,300 mg/kg dw) in the older sample was greater than the CSL. Data for this location were replaced with data from location SD-343, which did not include results for lead (see Table E.1-3). Four locations where data were replaced (DR021, DR065, DR187, and DR238) had results for dioxins and furans, but the newer samples were not analyzed for dioxins and furans. Although these older dioxin and furan data were not included in the baseline RI dataset, they are discussed in Section 4.2.6.1. A data summary for all omitted analytes is presented in Table E.1-4. Raw data for all surface sediment samples, including older samples that were replaced by newer samples, are presented in a CD accompanying the RI. The feasibility study (FS) surface sediment dataset will include data for chemicals analyzed in older samples that were not analyzed in newer samples; these data will be included in FS analyses and maps.

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[3] An extreme example of this situation is shown in Table E.1-3, where 10 samples from Harbor Island RI station K-05 were superseded by a single more recently collected sample (LDW-SS10-010). The large number of samples at station K-05 is an artifact of the manner in which the original Harbor Island RI database was constructed by the study authors. Unique sample IDs were created for different analyte classes, even though only two field samples were collected on September 27 and October 14, 1991.

Table E.1-3. Newer surface sediment samples that superseded older surface sediment samples if the sample locations were less than 10 ft apart

Newer Sample				River Mile	Older Sample				Nominal Distance Between New and Old Coordinates (ft)
Sample	Event	Location	Sampling Date		Sample	Event	Location	Sampling Date	
LDW-SS1-010	LDWRI-SurfSedRound1	LDW-SS1	1/17/05	0.0	K-11	Harbor Island RI	K-11	9/30/91	0.6
LDW-SS4-010	LDWRI-SurfSedRound1	LDW-SS4	1/17/05	0.0	K-07	Harbor Island RI	K-07	9/30/91	1.4
LDW-SS5-010	LDWRI-SurfSedRound1	LDW-SS5	1/17/05	0.0	SD-DR076-0000	EPA SI	DR076	8/24/98	1.5
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-1	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-1-B	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-1-D1	Harbor Island RI	K-05	9/27/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-1-D2	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-2	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-2-D1	Harbor Island RI	K-05	9/27/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-2-D2	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-3	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-3-D1	Harbor Island RI	K-05	9/27/91	1.3
LDW-SS10-010	LDWRI-SurfSedRound1	LDW-SS10	1/17/05	0.2	K-05-3-D2	Harbor Island RI	K-05	10/14/91	1.3
LDW-SS12-010	LDWRI-SurfSedRound1	LDW-SS12	1/17/05	0.2	SD-DR035-0000	EPA SI	DR035	8/11/98	2.1
LDW-SS15-010	LDWRI-SurfSedRound1	LDW-SS15	1/17/05	0.3	SD-DR079-0000	EPA SI	DR079	8/24/98	1.7
LDW-SS17-010	LDWRI-SurfSedRound1	LDW-SS17	1/24/05	0.3	L7279-11	Duw/Diag-1.5	DUD042	11/11/95	3.3
L7279-3	Duw/Diag-1.5	DUD032	11/9/95	0.4	L4288-27	Duw/Diag-1	DUD032	8/12/94	0.0
L12059-1	KC WQA	DD-1	9/24/97	0.4	L4288-30	Duw/Diag-1	DUD001	8/17/94	4.5
L12666-1	KC WQA	DD-1	9/24/97	0.4	L4288-30	Duw/Diag-1	DUD001	8/17/94	4.5
L12666-2	KC WQA	DD-2	9/24/97	0.4	L4288-5	Duw/Diag-1	DUD006	8/10/94	4.2
L12666-3	KC WQA	DD-2	9/24/97	0.4	L4288-5	Duw/Diag-1	DUD006	8/10/94	4.2
L12059-3	KC WQA	DD-3	9/24/97	0.5	L4288-21	Duw/Diag-1	DUD022	8/10/94	4.3
L12666-4	KC WQA	DD-3	9/24/97	0.5	L4288-21	Duw/Diag-1	DUD022	8/10/94	4.3
L12666-5	KC WQA	DD-4	9/24/97	0.5	L4288-28	Duw/Diag-1	DUD034	8/12/94	4.5
L12666-6	KC WQA	DD-4	9/24/97	0.5	L4288-28	Duw/Diag-1	DUD034	8/12/94	4.5
L12059-5	KC WQA	DD-5	9/24/97	0.5	L7279-8	Duw/Diag-1.5	DUD039	11/9/95	4.2
L12666-7	KC WQA	DD-5	9/24/97	0.5	L7279-8	Duw/Diag-1.5	DUD039	11/9/95	4.2

Table E.1-3, cont. Newer surface sediment samples that superseded older surface sediment samples if the sample locations were less than 10 ft apart

Newer Sample				River Mile	Older Sample				Nominal Distance Between New and Old Coordinates (ft)
Sample	Event	Location	Sampling Date		Sample	Event	Location	Sampling Date	
L29990-4	DuwDiagOct2003	DUD_4C	10/23/03	0.6	L7279-4	Duw/Diag-1.5	DUD036	11/11/95	6.0
L29990-5	DuwDiagOct2003	DUD_4C	10/23/03	0.6	L7279-4	Duw/Diag-1.5	DUD036	11/11/95	6.0
LDW-SS200-010	LDWRI-SurfSedRound1	LDW-SS27	1/18/05	0.8	EST21-03	NOAA SiteChar	EST219	9/17/97	4.5
LDW-SS27-010	LDWRI-SurfSedRound1	LDW-SS27	1/18/05	0.8	EST21-03	NOAA SiteChar	EST219	9/17/97	4.5
LDW-SSB2b-010	LDWRI-SurfSedRound2	LDW-SSB2b	3/11/05	0.8	SD-DR085-0000	EPA SI	DR085	8/31/98	5.6
SD-DR048-0000	EPA SI	DR048	8/12/98	0.9	WST20-02	NOAA SiteChar	WST367	9/19/97	6.3
LDW-SS32-010	LDWRI-SurfSedRound1	LDW-SS32	1/18/05	0.9	SD-DR019-0000	EPA SI	DR019	8/17/98	0.6
LDW-SS31-010	LDWRI-SurfSedRound1	LDW-SS31	1/21/05	0.9	SD-DR020-0000	EPA SI	DR020	8/17/98	1.0
LDW-SS319-010	LDWRI-SurfaceSedimentRound3	LDW-SS319	10/4/2006	0.9	SD-DR021-0000	EPA SI	DR021	8/17/98	6.7
LDW-SS37-010	LDWRI-SurfSedRound1	LDW-SS37	1/18/05	1.0	SD-DR087-0000	EPA SI	DR087	8/12/98	2.5
LDW-SS40-010	LDWRI-SurfSedRound1	LDW-SS40	1/18/05	1.1	SD-DR088-0000	EPA SI	DR088	8/31/98	1.1
LDW-SS44-010	LDWRI-SurfSedRound1	LDW-SS44	1/21/05	1.2	SD-DR053-0000-CC	EPA SI	DR053	8/31/98	1.6
LDW-B4b-S	LDWRI-Benthic	B4b	8/28/04	1.3	SD-DR028-0000	EPA SI	DR028	8/17/98	2.3
LDW-SS48-010	LDWRI-SurfSedRound1	LDW-SS48	1/18/05	1.3	SS-2	DuwamishShipyard	SS-2	8/17/93	1.5
LDW-SS202-010	LDWRI-SurfSedRound1	LDW-SS50	1/24/05	1.3	SD-DR030-0000	EPA SI	DR030	8/17/98	1.9
LDW-SS50-010	LDWRI-SurfSedRound1	LDW-SS50	1/24/05	1.3	SD-DR030-0000	EPA SI	DR030	8/17/98	1.9
LDW-SS51-010	LDWRI-SurfSedRound1	LDW-SS51	1/18/05	1.3	SD-DR160-0000	EPA SI	DR160	8/12/98	2.4
LDW-SS49-010	LDWRI-SurfSedRound1	LDW-SS49	1/26/05	1.4	SS-6	DuwamishShipyard	SS-3	8/17/93	8.0
LDW-SS49-010	LDWRI-SurfSedRound1	LDW-SS49	1/26/05	1.4	SS-3	DuwamishShipyard	SS-3	8/17/93	8.0
LDW-SS55-010	LDWRI-SurfSedRound1	LDW-SS55	1/24/05	1.4	SS-4	DuwamishShipyard	SS-4	8/17/93	3.0
LDW-SS57-010	LDWRI-SurfSedRound1	LDW-SS57	1/24/05	1.4	SD-DR123-0000	EPA SI	DR123	9/14/98	6.7
LDW-SS52-010	LDWRI-SurfSedRound1	LDW-SS52	1/25/05	1.4	SD-DR065-0000	EPA SI	DR065	8/17/98	1.2
LDW-SS63-010	LDWRI-SurfSedRound1	LDW-SS63	1/21/05	1.7	SD-DR097-0000	EPA SI	DR097	8/20/98	9.7
LDW-SS70-010	LDWRI-SurfSedRound1	LDW-SS70	1/21/05	1.8	SD-DR131-0000-CC	EPA SI	DR131	8/13/98	1.3
LDW-SS75-010	LDWRI-SurfSedRound1	LDW-SS75	1/21/05	1.9	SD0056	Boeing SiteChar	R7	10/15/97	5.7
LDW-SS76-010	LDWRI-SurfSedRound1	LDW-SS76	1/20/05	2.0	SD-DR106-0000	EPA SI	DR106	8/19/98	2.3
LDW-SS79-010	LDWRI-SurfSedRound1	LDW-SS79	1/24/05	2.0	CH07-01	NOAA SiteChar	CH0023	10/16/97	1.7
LDW-SS81-010	LDWRI-SurfSedRound2	LDW-SS81	3/8/05	2.1	SD-DR113-0000-CC	EPA SI	DR113	8/19/98	1.1

Table E.1-3, cont. Newer surface sediment samples that superseded older surface sediment samples if the sample locations were less than 10 ft apart

Newer Sample				River Mile	Older Sample				Nominal Distance Between New and Old Coordinates (ft)
Sample	Event	Location	Sampling Date		Sample	Event	Location	Sampling Date	
LDW-B5a-S2	LDWRI-Benthic	B5a-2	9/24/04	2.2	WIT11-01	NOAA SiteChar	WIT280	10/3/97	9.8
SD-DR141-0000-CC	EPA SI	DR141	8/20/98	2.3	WST14-01	NOAA SiteChar	WST342	10/23/97	3.9
LDW-SS88-010	LDWRI-SurfSedRound1	LDW-SS88	1/25/05	2.5	EIT09-01	NOAA SiteChar	EIT074	11/3/97	7.2
LDW-SS92-010	LDWRI-SurfSedRound1	LDW-SS92	1/25/05	2.7	EST13-05	NOAA SiteChar	EST180	10/6/97	2.4
LDW-SS94-010	LDWRI-SurfSedRound1	LDW-SS94	1/21/05	2.7	SD-DR175-0000	EPA SI	DR175	8/20/98	0.7
LDW-SS102-010	LDWRI-SurfSedRound1	LDW-SS102	1/24/05	3.0	SD-DR198-0000	EPA SI	DR198	8/20/98	2.8
LDW-SS104-010	LDWRI-SurfSedRound1	LDW-SS104	1/25/05	3.1	SD-DR202-0000	EPA SI	DR202	8/27/98	1.5
T117-SE10-SG	T117BoundaryDefinition	T117-SE-10-G	12/8/03	3.5	WST09-02	NOAA SiteChar	WST323	10/21/97	1.2
SD-309-0000	JorgensenAugust2004	SD-309-S	8/16/04	3.6	EST11-03	NOAA SiteChar	EST152	9/24/97	3.5
SD-320-0000	JorgensenAugust2004	SD-320-S	8/16/04	3.6	SD2B-DUW92-0000	Plant 2 RFI-2b	SD-DUW92	4/2/96	4.8
SD-334-0000	JorgensenAugust2004	SD-334-S	8/26/04	3.6	EST11-04	NOAA SiteChar	EST154	9/24/97	9.1
SD-343-0000	JorgensenAugust2004	SD-343-S	8/27/04	3.6	SD2B-DUW90-0000	Plant 2 RFI-2b	SD-DUW90	4/4/96	6.1
SWY17	Plant2-TransformPhase1	SD-SWY17	9/9/03	3.6	SD-SWY07-0000	Plant 2 RFI-1	SD-SWY07	6/13/95	7.0
LDW-SS110-010	LDWRI-SurfSedRound1	LDW-SS110	1/25/05	3.6	SD-323-0000	JorgensenAugust 2004	SD-323-S	8/17/04	3.4
LDW-SS111-010	LDWRI-SurfSedRound1	LDW-SS111	1/19/05	3.6	SD-DR186-0000	EPA SI	DR186	8/27/98	1.0
LDW-SS113b-010	LDWRI-SurfSedRound1	LDW-SS113b	1/20/05	3.7	SD0009	Boeing SiteChar	R21	10/9/97	1.4
LDW-SS115-010	LDWRI-SurfSedRound1	LDW-SS115	1/25/05	3.7	SD-DR187-0000	EPA SI	DR187	8/27/98	3.0
LDW-SS117-010	LDWRI-SurfSedRound1	LDW-SS117	1/20/05	3.8	SD0013	Boeing SiteChar	R24	10/10/97	1.2
LDW-SS119-010	LDWRI-SurfSedRound1	LDW-SS119	1/19/05	3.8	SD0021	Boeing SiteChar	R30	10/11/97	2.3
LDW-SS121-010	LDWRI-SurfSedRound1	LDW-SS121	1/25/05	3.9	EIT06-02	NOAA SiteChar	EIT061	9/29/97	4.0
LDW-SS123-010	LDWRI-SurfSedRound1	LDW-SS123	1/24/05	3.9	EST09-04	NOAA SiteChar	EST144	9/25/97	1.1
LDW-SS203-010	LDWRI-SurfSedRound1	LDW-SS123	1/24/05	3.9	EST09-04	NOAA SiteChar	EST144	9/25/97	1.1
LDW-SS125-010	LDWRI-SurfSedRound1	LDW-SS125	1/20/05	4.0	SD-DR238-0000	EPA SI	DR238	8/27/98	1.1
LDW-B8b-S	LDWRI-Benthic	B8b	8/19/04	4.1	EST07-07	NOAA SiteChar	EST135	11/12/97	2.7
LDW-SS126-010	LDWRI-SurfSedRound1	LDW-SS126	1/20/05	4.1	RPL-A11-05-02	Rhône-Poulenc RFI-2	A11-05	8/18/94	2.1
LDW-SS126-010	LDWRI-SurfSedRound1	LDW-SS126	1/20/05	4.1	RPL-A11-10-02	Rhône-Poulenc RFI-2	A11-05	8/18/94	2.1
Upper SB-01	RhônePoulenc2004	SB-1	8/25/04	4.2	SD-DR242-0000-CC	EPA SI	DR242	8/24/98	9.5

Table E.1-3, cont. **Newer surface sediment samples that superseded older surface sediment samples if the sample locations were less than 10 ft apart**

Newer Sample				River Mile	Older Sample				Nominal Distance Between New and Old Coordinates (ft)
Sample	Event	Location	Sampling Date		Sample	Event	Location	Sampling Date	
Upper SB-15	RhônePoulenc2004	SB-1	8/25/04	4.2	SD-DR242-0000-CC	EPA SI	DR242	8/24/98	9.5
LDW-SS127-010	LDWRI-SurfSedRound1	LDW-SS127	1/20/05	4.2	SD0032	Boeing SiteChar	R40	10/13/97	1.0
LDW-SS129-010	LDWRI-SurfSedRound1	LDW-SS129	1/20/05	4.2	SD0033	Boeing SiteChar	R42	10/13/97	8.4
LDW-SS130-010	LDWRI-SurfSedRound1	LDW-SS130	1/20/05	4.2	SD0070	Boeing SiteChar	R45	10/16/97	0.5
Upper SH-04	RhônePoulenc2004	SH-04	8/24/04	4.3	06-intsed-2	Rhône-Poulenc RFI-3	06-intsed-2	7/1/96	8.6
Upper SH-02	RhônePoulenc2004	SH-02	8/25/04	4.3	07-intsed-1	Rhône-Poulenc RFI-3	07-intsed-1	7/1/96	9.7
LDW-B10b-S	LDWRI-Benthic	B10b	8/19/04	4.3	SD-DR286-0000-CC	EPA SI	DR286	8/26/98	3.2
LDW-SS148-010	LDWRI-SurfSedRound2	LDW-SS148	3/9/05	4.7	SD-DR271-0000	EPA SI	DR271	9/15/98	2.0
L20703-2	Norfolk-monit4	NFK501	4/24/01	4.9	L15421-1	Norfolk-monit1	NFK501	4/23/99	8.7
L23995-6	Norfolk-monit5	NFK503	4/30/02	4.9	L16628-6	Norfolk-monit2a	NFK503	10/8/99	4.2
L23995-6	Norfolk-monit5	NFK503	4/30/02	4.9	L17647-6	Norfolk-monit3	NFK503	4/6/00	3.3
L23995-6	Norfolk-monit5	NFK503	4/30/02	4.9	L20703-6	Norfolk-monit4	NFK503	4/24/01	4.0
288131	Ecology-Norfolk	2	7/9/02	4.9	L4321-2	Norfolk-cleanup1	NFK002	8/18/94	8.5
288132	Ecology-Norfolk	3	7/9/02	4.9	L4321-2	Norfolk-cleanup1	NFK002	8/18/94	9.5
288133	Ecology-Norfolk	4	7/9/02	4.9	L4321-2	Norfolk-cleanup1	NFK002	8/18/94	8.7
288134	Ecology-Norfolk	5	7/9/02	4.9	SD0079	Boeing SiteChar	R87	10/18/97	5.3
288134	Ecology-Norfolk	5	7/9/02	4.9	L17311-1	Norfolk-monit2b	NFK506	2/10/00	6.3
288136	Ecology-Norfolk	7	7/9/02	4.9	SD0079	Boeing SiteChar	R87	10/18/97	6.4
288136	Ecology-Norfolk	7	7/9/02	4.9	L17311-1	Norfolk-monit2b	NFK506	2/10/00	6.3
288148	Ecology-Norfolk	7	7/9/02	4.9	SD0079	Boeing SiteChar	R87	10/18/97	6.4
288148	Ecology-Norfolk	7	7/9/02	4.9	L17311-1	Norfolk-monit2b	NFK506	2/10/00	5.4
LDW-SS341-010	LDWRI-SurfaceSedimentRound3	LDW-SS341	10/3/2006	4.9	288139	Ecology-Norfolk	10	7/9/02	8.9
LDW-SS341-010	LDWRI-SurfaceSedimentRound3	LDW-SS341	10/3/06	4.9	L17315-3	Norfolk-monit2b	NFK503	2/8/00	7.6
LDW-SS341-010	LDWRI-SurfaceSedimentRound3	LDW-SS341	10/3/06	4.9	L28052-6	Norfolk-monit6	NFK503	4/23/03	4.3
LDW-SS341-010	LDWRI-SurfaceSedimentRound3	LDW-SS341	10/3/06	4.9	L31635-6	Norfolk-monit7	NFK503	4/5/04	1.8
LDW-SS342-010	LDWRI-SurfaceSedimentRound3	LDW-SS342	10/3/06	4.9	L16628-4	Norfolk-monit2a	NFK502	10/8/99	7.8
LDW-SS342-010	LDWRI-SurfaceSedimentRound3	LDW-SS342	10/3/06	4.9	L17647-4	Norfolk-monit3	NFK502	4/6/00	9.3
LDW-SS342-010	LDWRI-SurfaceSedimentRound3	LDW-SS342	10/3/06	4.9	L20703-4	Norfolk-monit4	NFK502	4/24/01	4.1

Table E.1-3, cont. **Newer surface sediment samples that superseded older surface sediment samples if the sample locations were less than 10 ft apart**

Newer Sample				River Mile	Older Sample				Nominal Distance Between New and Old Coordinates (ft)
Sample	Event	Location	Sampling Date		Sample	Event	Location	Sampling Date	
LDW-SS342-010	LDWRI-SurfaceSedimentRound3	LDW-SS342	10/3/06	4.9	L23995-4	Norfolk-monit5	NFK502	4/30/02	2.8
LDW-SS342-010	LDWRI-SurfaceSedimentRound3	LDW-SS342	10/3/06	4.9	L28052-4	Norfolk-monit6	NFK502	4/23/03	4.7
LDW-SS342-010	LDWRI-SurfaceSedimentRound3	LDW-SS342	10/3/06	4.9	L31635-4	Norfolk-monit7	NFK502	4/5/04	1.8
LDW-SS343-010	LDWRI-SurfaceSedimentRound3	LDW-SS343	10/3/06	4.9	288146	Ecology-Norfolk	17	7/9/02	1.0
LDW-SS343-010	LDWRI-SurfaceSedimentRound3	LDW-SS343	10/3/06	4.9	L17315-1	Norfolk-monit2b	NFK501	2/8/00	3.4
LDW-SS343-010	LDWRI-SurfaceSedimentRound3	LDW-SS343	10/3/06	4.9	L23995-2	Norfolk-monit5	NFK501	4/30/02	3.6
LDW-SS343-010	LDWRI-SurfaceSedimentRound3	LDW-SS343	10/3/06	4.9	L28052-2	Norfolk-monit6	NFK501	4/23/03	4.4
LDW-SS343-010	LDWRI-SurfaceSedimentRound3	LDW-SS343	10/3/06	4.9	L31635-2	Norfolk-monit7	NFK501	4/5/04	1.4
LDW-SS344-010	LDWRI-SurfaceSedimentRound3	LDW-SS344	10/3/06	4.9	L15421-4	Norfolk-monit1	NFK504	4/23/99	1.1
LDW-SS344-010	LDWRI-SurfaceSedimentRound3	LDW-SS344	10/3/06	4.9	L17647-8	Norfolk-monit3	NFK504	4/6/00	6.6
LDW-SS344-010	LDWRI-SurfaceSedimentRound3	LDW-SS344	10/3/06	4.9	L20703-8	Norfolk-monit4	NFK504	4/24/01	6.8
LDW-SS344-010	LDWRI-SurfaceSedimentRound3	LDW-SS344	10/3/06	4.9	L23995-8	Norfolk-monit5	NFK504	4/30/02	8.9
LDW-SS344-010	LDWRI-SurfaceSedimentRound3	LDW-SS344	10/3/06	4.9	L28052-8	Norfolk-monit6	NFK504	4/23/03	7.2
LDW-SS344-010	LDWRI-SurfaceSedimentRound3	LDW-SS344	10/3/06	4.9	L31635-8	Norfolk-monit7	NFK504	4/5/04	3.0

Note: Sampling location coordinates are Washington State Plane North, US survey ft, NAD83.
Ecology – Washington State Department of Ecology
EPA – US Environmental Protection Agency
LDW – Lower Duwamish Waterway
NOAA – National Oceanic and Atmospheric Administration
RCRA – Resource Conservation and Recovery Act
RFI – RCRA facility investigation
RI – remedial investigation
SI – site investigation

Table E.1-4. Summary of data omitted from the RI baseline dataset if an older sample was replaced by a newer sample with fewer analytes

Chemical	Number of Samples Omitted	Number of Samples in RI Baseline Dataset	Detection Frequency of Omitted Chemicals	Dry-Weight Concentration				OC-Normalized Concentration				Number of Detected Concentrations > SMS		Number of RLs > SMS	
				Min Detect	Max Detect	RL Range	Unit	Min Detect	Max Detect	RL Range	Unit	> SQS and ≤ CSL	> CSL	>SQS and ≤ CSL	> CSL
Metals and trace elements															
Arsenic	4	856	4/4	7.1	18.0	na	mg/kg dw	na	na	na	na	0	0	0	0
Cadmium	4	842	2/4	0.40	0.70	0.4 – 0.48	mg/kg dw	na	na	na	na	0	0	0	0
Chromium	4	854	4/4	25	110 J	na	mg/kg dw	na	na	na	na	0	0	0	0
Copper	4	856	4/4	27.0	97 J	na	mg/kg dw	na	na	na	na	0	0	0	0
Lead	4	856	4/4	13	1,300	na	mg/kg dw	na	na	na	na	0	1	0	0
Mercury	6	874	5/6	0.060 J	0.270	0.09	mg/kg dw	na	na	na	na	0	0	0	0
Nickel	4	816	4/4	20.0	75	na	mg/kg dw	na	na	na	na	nc	nc	nc	nc
Silver	7	830	3/7	0.37	0.70	0.4 – 0.9	mg/kg dw	na	na	na	na	0	0	0	0
Vanadium	3	600	3/3	57	81	na	mg/kg dw	na	na	na	na	nc	nc	nc	nc
Zinc	4	853	4/4	68.0	280	na	mg/kg dw	na	na	na	na	0	0	0	0
Organometals															
Tributyltin as ion	15	173	15/15	8.0 J	432 J	na	µg/kg dw	na	na	na	na	nc	nc	nc	nc
PAHs															
2-Methylnaphthalene	4	822	0/4	nd	nd	20 – 110	µg/kg dw	nd	nd	0.57 – 4.9	mg/kg OC	0	0	0	0
Acenaphthene	3	831	0/3	nd	nd	18 – 110	µg/kg dw	nd	nd	1.2 – 4.4	mg/kg OC	0	0	0	0
Anthracene	3	831	0/3	nd	nd	20 – 110	µg/kg dw	nd	nd	1.2 – 4.4	mg/kg OC	0	0	0	0
Benzo(a)anthracene	3	831	3/3	64	110	na	µg/kg dw	3.8	7.86	na	mg/kg OC	0	0	0	0
Benzo(a)pyrene	2	824	2/2	76	160	na	µg/kg dw	4.5	6.4	na	mg/kg OC	0	0	0	0
Benzo(g,h,i)perylene	3	831	2/3	70	140 J	110	µg/kg dw	4.1	10.0 J	4.4	mg/kg OC	0	0	0	0
Benzofluoranthenes	3	825	3/3	173	390	na	µg/kg dw	10	19.5 J	na	mg/kg OC	0	0	0	0
Chrysene	3	831	3/3	120	160	na	µg/kg dw	6.4	10.0	na	mg/kg OC	0	0	0	0
Dibenzo(a,h)anthracene	3	831	0/3	nd	nd	20 – 110	µg/kg dw	nd	nd	1.2 – 4.9	mg/kg OC	0	0	0	0

Table E.1-4, cont. Summary of chemicals omitted if an older sample was replaced by a newer sample with fewer analytes

Chemical	Number of Samples Omitted	Number of Samples in RI Baseline Dataset	Detection Frequency of Omitted Chemicals	Dry-Weight Concentration				OC-Normalized Concentration				Number of Detected Concentrations > SMS		Number of RLs > SMS	
				Min Detect	Max Detect	RL Range	Unit	Min Detect	Max Detect	RL Range	Unit	> SQS and ≤ CSL	> CSL	>SQS and ≤ CSL	> CSL
Dibenzofuran	3	830I	0/3	nd	nd	20 – 110	µg/kg dw	nd	nd	1.2 – 4.4	mg/kg OC	0	0	0	0
Fluoranthene	3	831	3/3	130	290	na	µg/kg dw	7.6	20.7	na	mg/kg OC	0	0	0	0
Fluorene	3	831	0/3	nd	nd	20 – 110	µg/kg dw	nd	nd	1.2 – 4.4	mg/kg OC	0	0	0	0
Indeno(1,2,3-cd)pyrene	3	831	2/3	76	140	110	µg/kg dw	4.5	10.0	4.4	mg/kg OC	0	0	0	0
Naphthalene	4	822	0/4	nd	nd	20 – 110	µg/kg dw	nd	nd	0.57 – 4.9	mg/kg OC	0	0	0	0
Phenanthrene	3	831	3/3	110	120 J	na	µg/kg dw	4.4	8.57 J	na	mg/kg OC	0	0	0	0
Pyrene	3	831	3/3	190	280 J	na	µg/kg dw	7.6	20.0 J	na	mg/kg OC	0	0	0	0
Total HPAH	3	831	3/3	930	1,373 J	na	µg/kg dw	51	98.1 J	na	mg/kg OC	0	0	0	0
Total LPAH	3	831	3/3	110	120 J	na	µg/kg dw	4.4	8.57 J	na	mg/kg OC	0	0	0	0
Carcinogenic PAHs -	3	831	3/3	68 J	240	na	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Total PAH	3	831	3/3	1,040	1,493 J	na	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Phthalates															
Bis(2-ethylhexyl)phthalate	3	835	3/3	220	430	na	µg/kg dw	8.8	30.7	na	mg/kg OC	0	0	0	0
Butyl benzyl phthalate	4	826	2/4	22 J	50	26 – 110	µg/kg dw	1.3 J	1.4	1.9 – 4.4	mg/kg OC	0	0	0	0
Dimethyl phthalate	4	826	1/4	30	30	18 – 110	µg/kg dw	0.86	0.86	1.2 – 4.4	mg/kg OC	0	0	0	0
Other SVOCs															
1,2,4-Trichlorobenzene	4	820	0/4	nd	nd	2.1 – 110	µg/kg dw	nd	nd	0.15 – 4.4	mg/kg OC	0	0	1	1
1,2-Dichlorobenzene	4	820	0/4	nd	nd	2.1 – 110	µg/kg dw	nd	nd	0.15 – 4.4	mg/kg OC	0	0	0	1
1,4-Dichlorobenzene	4	820	1/4	19.0 J	19.0 J	20 – 110	µg/kg dw	1.36 J	1.36 J	0.57 – 4.4	mg/kg OC	0	0	1	0
2,4-Dimethylphenol	4	817	0/4	nd	nd	20 – 330	µg/kg dw	na	na	na	na	0	0	0	2
4-Methylphenol	3	834	0/3	nd	nd	20 – 110	µg/kg dw	na	na	na	na	0	0	0	0
Benzoic acid	3	825	0/3	nd	nd	180 – 1,100	µg/kg dw	na	na	na	na	0	0	0	1
Benzyl alcohol	4	816	0/4	nd	nd	20 – 540	µg/kg dw	na	na	na	na	0	0	0	1
Hexachlorobenzene	4	823	0/4	nd	nd	1 – 110	µg/kg dw	nd	nd	0.059 – 4.4	mg/kg OC	0	0	1	1
n-Nitrosodiphenylamine	4	822	0/4	nd	nd	20 – 110	µg/kg dw	nd	nd	1.1 – 4.4	mg/kg OC	0	0	0	0
Pentachlorophenol	3	788	0/3	nd	nd	43 – 540	µg/kg dw	na	na	na	na	0	0	1	0

Table E.1-4, cont. Summary of chemicals omitted if an older sample was replaced by a newer sample with fewer analytes

Chemical	Number of Samples Omitted	Number of Samples in RI Baseline Dataset	Detection Frequency of Omitted Chemicals	Dry-Weight Concentration				OC-Normalized Concentration				Number of Detected Concentrations > SMS		Number of RLs > SMS	
				Min Detect	Max Detect	RL Range	Unit	Min Detect	Max Detect	RL Range	Unit	> SQS and ≤ CSL	> CSL	>SQS and ≤ CSL	> CSL
Phenol	3	834	0/3	nd	nd	20 – 220	µg/kg dw	na	na	na	na	0	0	0	0
Pesticides															
4,4'-DDD	17	210	7/17	3.80	8.00	2 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
4,4'-DDE	17	210	3/17	1.0	5.30	1.9 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
4,4'-DDT	17	210	1/17	4.0 J	4.0 J	1.9 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
DDTs	17	210	9/17	3.80	12.00	2 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Aldrin	17	210	0/17			0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Dieldrin	17	210	1/17	3.50	3.50	1.9 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Total aldrin/dieldrin	17	210	1/17	3.50	3.50	1.9 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
alpha-BHC	17	210	0/17	nd	nd	0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
beta-BHC	17	210	0/17	nd	nd	0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
gamma-BHC	17	210	1/17	8.60	8.60	0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
delta-BHC	11	166	0/11	nd	nd	0.99 – 3.7	µg/kg dw	na	na	na	na	nc	nc	nc	nc
alpha-Chlordane	11	160	0/11	nd	nd	1 – 37	µg/kg dw	na	na	na	na	nc	nc	nc	nc
gamma-Chlordane	11	160	0/11	nd	nd	1 – 37	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Chlordane	6	50	0/6	nd	nd	12 – 15	µg/kg dw	na	na	na	na	nc	nc	nc	nc
alpha-Endosulfan	11	158	0/11	nd	nd	0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
beta-Endosulfan	11	160	0/11	nd	nd	2 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Endosulfan	6	52	0/6	nd	nd	1.9 – 2.5	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Endosulfan sulfate	17	208	0/17	nd	nd	1.9 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Endrin	17	210	0/17	nd	nd	1.9 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Endrin aldehyde	16	198	1/16	14	14	1.9 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Endrin ketone	11	148	0/11	nd	nd	2 – 20	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Heptachlor	17	210	0/17	nd	nd	0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Heptachlor epoxide	17	210	0/17	nd	nd	0.99 – 10	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Methoxychlor	17	210	1/17	10	10	1 – 37	µg/kg dw	na	na	na	na	nc	nc	nc	nc

Table E.1-4, cont. Summary of chemicals omitted if an older sample was replaced by a newer sample with fewer analytes

Chemical	Number of Samples Omitted	Number of Samples in RI Baseline Dataset	Detection Frequency of Omitted Chemicals	Dry-Weight Concentration				OC-Normalized Concentration				Number of Detected Concentrations > SMS		Number of RLs > SMS	
				Min Detect	Max Detect	RL Range	Unit	Min Detect	Max Detect	RL Range	Unit	> SQS and ≤ CSL	> CSL	>SQS and ≤ CSL	> CSL
Toxaphene	17	208	0/17	nd	nd	10 – 500	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Total chlordane	11	160	0/11	nd	nd	1 – 37	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Volatile organic compounds															
Acetone	8	49	0/8	nd	nd	23 – 120	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Carbon disulfide	8	49	4/8	1.4 J	2.9 J	4.6 – 6	µg/kg dw	na	na	na	na	nc	nc	nc	nc
p-Cymene	8	44	0/8	nd	nd	1.8 – 3.4	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Dichloromethane	8	49	0/8	nd	nd	6.3 – 17	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Methyl ethyl ketone	8	49	2/8	10.6	10.6	4.6 – 6.8	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Tetrachloroethene	8	49	0/8	nd	nd	1.8 – 3.4	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Toluene	8	49	2/8	0.34 J	6.4	1.8 – 3.4	µg/kg dw	na	na	na	na	nc	nc	nc	nc
Dioxin/furan															
Dioxin/furan TEQ	4	51	4/4	3.1 J	13 J	na	ng/kg dw	na	na	na	na	nc	nc	nc	nc

Note: Raw data for all surface sediment samples, including older samples that were replaced by newer samples, are presented in a CD accompanying the RI.

BHC – benzene hexachloride
CSL – cleanup screening level
DDD – dichlorodiphenyldichloroethane
DDE – dichlorodiphenyldichloroethylene
DDT – dichlorodiphenyltrichloroethane
dw – dry weight
HPAH – high-molecular-weight polycyclic aromatic hydrocarbon
J – estimated concentration
LPAH – low-molecular-weight polycyclic aromatic hydrocarbon
na – not applicable
nc – no criteria
nd – not detected
OC – organic carbon
PAH – polycyclic aromatic hydrocarbon
RI – remedial investigation
RL – reporting limit
SMS – Washington State Sediment Management Standards
SQS – sediment quality standards
SVOC – semivolatile organic compound
TEQ – toxic equivalent

Two samples collected at locations very close to each other (i.e., within 10 ft) at different times reflect both the spatial and temporal heterogeneity of the chemical concentrations in the sediment. If such samples were collected at essentially the same time, as in the case of field replicates, then any differences in chemical concentrations can be attributed to spatial heterogeneity or variability resulting from laboratory procedures. If such samples were collected several years apart, it is not possible to distinguish between temporal and spatial heterogeneity as the cause of any differences in chemical concentrations. The decision to exclude the older data from the RI baseline surface sediment dataset in favor of data from newer co-located samples is based on the assumption that for two co-located (i.e., within 10 ft) samples collected at least 6 months apart, any differences in analyte concentrations are primarily a reflection of a temporal trend, and not of spatial variation. Therefore, for co-located samples collected within 6 months of each other, both were kept in the RI baseline surface sediment dataset and the results averaged for that location. For co-located samples collected more than 6 months apart, the most recent samples were retained in the RI baseline surface sediment dataset, and the earlier sample(s) were not included. The 6-month cutoff was based on best professional judgment.

As an example of data collected within a short time-frame, five locations (Kellogg Island [RM 0.7 west], Brandon [RM 1.2 east], 8th Ave [RM 2.8 west], South Park [RM 3.3 west], and Hamm Creek [RM 4.4 west]) were sampled repeatedly over a 13-week period in 1997 to assess short-term variability in sediment characteristics relative to combined sewer overflow/storm drain (CSO/SD) flows entering the LDW as part of the King County water quality assessment (WQA) (King County 1999). Because the sampling period was relatively short (i.e., months compared to years for most monitoring programs), all of these samples were included in the baseline surface sediment dataset and all results for a given chemical collected at each single location were averaged. This convention is consistent with the data averaging procedures used for field duplicates and replicates collected at any single location (see Section E.3.0).

A sediment removal action was conducted by King County in 1999 at the Norfolk EAA. Four locations have been sampled annually at this site following dredging and backfilling with clean sediments. These locations were also sampled as part of the surface sediment sampling event conducted in 2006 for the RI. The most recent samples (from 2006) from these monitoring locations were included in the RI baseline surface sediment dataset to most accurately reflect current conditions. Several other locations within the removal area were sampled only once in previous years, but are considered to be part of the Norfolk monitoring program put in place after the removal action. Although the data from those locations may be somewhat older than the most recent monitoring data, they were included in the RI baseline surface sediment dataset because they characterize locations other than the four primary sampling locations.

Not all of the samples from the four primary monitoring locations on the Norfolk cap were collected within 10 ft of each other. In several instances, the coordinates for the most recent occupation of the four primary monitoring stations are more than 10 ft (maximum of 34 ft) from the coordinates for previous occupations of these same monitoring stations. In these instances, the older samples, with a few exceptions, were included in the baseline dataset because they were collected more than 10 ft away from the most recently sampled locations as discussed in detail in Windward (2006). When older samples were collected within 10 ft of a newer sample, only the newer sample was included in the RI baseline dataset.

E.1.3 SURFACE SEDIMENT DATA COLLECTED IN THE VICINITY OF REMOVAL ACTIONS AT THE DUWAMISH/DIAGONAL EAA AND THE BOEING DEVELOPMENTAL CENTER SOUTH STORM DRAIN

Dredging occurred at the Duwamish/Diagonal EAA during the 2003/2004 dredging season. The pre-dredging data within the removal area were used to characterize baseline. There have been 11 separate sampling events associated with the Duwamish/ Diagonal area, as listed in Table E.1-5. The first three sampling events took place between August 1994 and September 1996, prior to the dredging that occurred between October 2003 and March 2004 (Table E.1-5). Samples collected during these first three events were included in the RI baseline surface sediment dataset. Similarly, the data from the perimeter sampling conducted prior to dredging in October 2003 were also included in the RI baseline surface sediment dataset.

Table E.1-5. Duwamish/Diagonal sampling events

Event Name	Description	Date	Included in Baseline?
Duw/Diag-1	Phase 1 site assessment	Aug 1994	yes
Duw/Diag-1.5	Phase 1.5 site assessment	Nov 1995	yes
Duw/Diag-2	Phase 2 site assessment	May-Sep 1996	yes
DuwDiagOctober2003	Perimeter monitoring – pre-dredge	Oct 2003	yes
DuwDiagMarch2004	Perimeter monitoring – post-dredge	Mar 2004	no
DuwDiagJune2004	Baseline cap monitoring – year 0	June 2004	no
DuwDiagJan2005	Perimeter monitoring – 1 year post-dredge before thin-layer cap placement	Jan-Feb 2005	no
LDWRI-SurfaceSediment	Phase 2 RI sampling conducted by LDWG	Jan-Feb 2005	no[a]
DuwDiagMar2005	Perimeter monitoring – 1 year post-dredge after thin-layer cap placement	Mar 2005	no
DuwDiagApril2005	Cap monitoring – year 1	April 2005	no
DuwDiagAugust2005	Cap monitoring – year 1	August 2005	no
DuwDiagMar2006	Cap monitoring – year 2	March 2006	no
DuwDiagonal April2007	Cap monitoring – year 3	April 2007	no

[a] Only samples from the five locations described in the text below were excluded from the RI baseline surface sediment dataset. The other samples collected by LDWG in Jan-Feb 2005 were included in the RI baseline surface sediment dataset.

LDWG – Lower Duwamish Waterway Group

RI – remedial investigation

The perimeter locations sampled in October 2003 were also sampled in March 2004 and January and February 2005 as part of continued post-dredge monitoring (King County et al. 2005). These sampling events, and the other three King County Duwamish/ Diagonal sampling events listed in Table E.1-5, were conducted to monitor conditions within and adjacent to the removal action area. In addition, LDWG collected surface sediment samples in this area during January and February 2005 (Windward 2005a, b). The results for these LDWG samples also likely reflect post-removal conditions in the area outside the dredge boundary that was affected by the dredging activity. Based on a review of the post-removal monitoring data collected by King County, 200 ft was selected as a reasonable distance from the dredge boundary for delineating the area potentially influenced by the removal action. Five locations sampled by LDWG (Windward 2005a, b) were within this 200-ft perimeter: LDW-SS18, LDW-SS20, LDW-SS21, LDW-SS22, and LDW-SS25.[4] The post-removal data collected by King County at Duwamish/Diagonal and the LDWG Phase 2 data from the five locations described above will be used in the FS to represent post-removal conditions, but they are not relevant to baseline conditions and were excluded from the RI baseline surface sediment dataset. A list of all samples, including those from the Duwamish/Diagonal area, and whether they were included in the RI baseline surface sediment dataset is provided in Table E.3-1 in Section E.3.

Decisions regarding the samples associated with the removal action conducted at the Boeing Developmental Center south storm drain outfall just north of the Norfolk CSO/SD outfall (PPC 2003) followed the same logic described above for the Duwamish/Diagonal area. This area was within the area previously identified as the Norfolk EAA. Surface sediment samples collected within the removal area boundary prior to the removal were included in the RI baseline surface sediment dataset, while samples collected on top of the cap placed over the removal area were not.

E.1.4 REFERENCES

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King County, Anchor, EcoChem. 2005. Duwamish/Diagonal CSO/SD sediment remediation project closure report. Prepared for the Elliott Bay Duwamish Restoration Program Panel. King County Department of Natural Resources, Anchor Environmental LLC, and EcoChem, Inc., Seattle, WA.

[4] Two of these locations (LDW-SS18 and LDW-SS20) were sampled by King County as part of their 1-year post-dredge perimeter monitoring. LDWG received splits of these samples from King County and conducted additional analyses (i.e., dioxins/furans and tributyltin) that were not included in the King County analyses.

PPC. 2003. Cleanup action report, sediment removal near south storm drain outfall, Boeing Developmental Center, Tukwila, WA. Project Performance Corporation, Bellevue, WA.

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Windward. 2006. Lower Duwamish Waterway remedial investigation. Technical memorandum: Criteria for defining the baseline surface sediment dataset for use in the Lower Duwamish Waterway Phase 2 RI/FS. Prepared for Lower Duwamish Waterway Group. Windward Environmental LLC, Seattle, WA.

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E.2 Data Quality Review Summaries and Surface Sediment Data Excluded from the Baseline Dataset

Table E.2-1. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Sediment Chemistry							
Duwamish Diagonal March 2006 cap monitoring – year 2, perimeter sediment characterization, and ENR cap sediment characterization – year 1	*DuwDiagMarch 2006*	*2006*	*RM 0.4-0.6 east*	*Grain size, TOC, metals, SVOCs, PCB Aroclors, organochlorine pesticides*	*23 samples and 3 field duplicate samples; 8 grab samples collected with 6" coring device; 18 samples composited using equal aliquots of 3-10 grab samples collected using a van Veen grab sampler (0-10 cm)*	*QC consistent with previous King County events approved for all uses by EPA; validation qualifiers will be added to database*	*King County (2006a, b, 2007)*
Boeing Developmental Center 2005 Annual Sampling of South Storm Drain System – Year 2	*Boeing Developmental Center-2005*	*2005*	*RM 4.9 east*	*PCB Aroclors, TOC, total solids*	*3 surface (0-2 cm) sediment grab samples (1 field duplicate sample) collected using disposable plastic spoons*	*QC consistent with EPA guidelines; no validation qualifiers needed*	*Calibre (2006)*
Duwamish Diagonal Jan-Feb 2005 post-dredge perimeter - before thin-layer cap placement	*DuwDiagJan 2005*	*2005*	*RM 0.4-0.6 east*	*Grain size, TOC, metals, SVOCs, PCB Aroclors, organochlorine pesticides*	*22 grab surface (0-10 cm) sediment samples (2 field replicates) using van Veen grab sampler*	*QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database*	*King County (2005d)*
Duwamish Diagonal Mar 2005 post-dredge perimeter - after thin-layer cap placement	*DuwDiagMarch2005*	*2005*	*RM 0.4-0.6 east*	*Grain size, TOC, metals, SVOCs, PCB Aroclors, organochlorine pesticides*	*8 surface sediment samples (1 replicate) using a diver-actuated coring device from the top 10 cm of sediment*	*QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database*	*King County (2005c)*
Duwamish Diagonal April 2005 baseline cap monitoring - year 1	*DuwDiagApril 2005*	*2005*	*RM 0.4-0.6 east*	*TOC, grain size, metals, SVOCs, PCB Aroclors, organochlorine pesticides*	*7 surface sediment grab samples (1 replicate) using van Veen grab samplers from the top 10 cm of sediment*	*QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database*	*King County (2005b)*

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Boeing Developmental Center 2004 Annual Sampling of South Storm Drain System – year 1	*Boeing DevelopmentalCenter-2004*	*2004*	*RM 4.9 east*	*PCB Aroclors, TOC, total solids*	*3 surface (0-2 cm) sediment grab samples (1 field duplicate sample) collected using disposable plastic spoons*	*QC consistent with EPA guidelines; no validation qualifiers needed*	Calibre (2005)
Triad approach (immunoassay as a real-time measure) to characterize PCB in a Washington riverine sediment site	*Jorgensen August2004*	*2004*	*RM 3.5-3.7 east*	*TOC, SVOCs, grain size, mercury, lead*	*18 surface sediment samples (2 duplicate samples) using the van Veen sampler (<10 cm) and 50 subsurface sediment samples from 17 locations collected by vibracorer (1-6 ft, samples generally at 1-ft intervals)*	*data validation consistent with EPA guidelines; validation qualifiers for all fixed laboratory analyses added to database; field screening data may be used for informational purposes only*	*Herrera (2005)* EPA (2005a, 2004)
Upriver (Area 1) sediment characterization	*JorgensenApril2004*	*2004*	*RM 3.6-3.7 east*	*metals, PCB Aroclors, TOC, grain size*	*75 subsurface sediment samples from 22 sediment cores (2 duplicate cores) from 20 locations using the MudMole (6.8 to 10.6-ft cores; samples generally at 1-ft intervals)*	*data validation consistent with EPA guidelines; validation qualifiers added to database*	*MCS (2004c)*
Rhône-Poulenc surface/subsurface sediment	*RhônePoulenc2004*	*2004*	*RM 4.0-4.3 east*	*VOCs, metals, pesticides, PCB Aroclors*	*50 sediment samples (8 duplicate samples) from 21 locations using a clam gun; cores were divided into upper (0-10 cm) and lower (> 10 cm) samples*	*data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database*	*EPA (2005b)*
Duwamish Diagonal June 2004 baseline cap monitoring - year 0 (post-cap placement)	*DuwDiagJune 2004*	*2004*	*RM 0.4-0.6 east*	*TOC, grain size, metals, PCB Aroclors, SVOCs*	*8 surface sediment grab samples from the top 10 cm of sediment using the van Veen grab sampler*	*QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database*	*King County (2005e)*
Boeing Plant 2 DSOA additional vertical characterization - Phase 2	*DSOAvertchar2*	*2004*	*RM 2.9-3.2 east*	*PCB Aroclors, TOC*	*28 subsurface samples from 15 sediment cores (2 duplicate samples) from 15 locations using the MudMole (3.7 to 10.6-ft cores; samples generally at 1-ft intervals)*	*data validation consistent with EPA guidelines; validation qualifiers added to database*	*MCS (2004a)*
Boeing Plant 2 DSOA additional vertical characterization - Phase 3	*DSOAvertchar3*	*2004*	*RM 3.0-3.4 east*	*PCB Aroclors, TOC*	*5 sediment cores from 4 new locations and one reoccupied location using the MudMole (5.4 to 9.9-ft cores; samples generally at 1-ft intervals)*	*data validation consistent with EPA guidelines; all data, as reported are acceptable for use*	*MCS (2004b)*

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Boyer Towing dock replacement	Boyer Towing	2004	RM 2.4 west	metals, SVOCs, PCB Aroclors, conventionals	4 surface (0-10 cm) and 4 subsurface (30-60 cm) sediment samples collected with push core	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	WR Consulting (2004)
PSDDA characterization at the Lehigh Northwest Duwamish Waterway Facility	Lehigh NW	2004	RM 1.1 east	metals, SVOCs, PCB Aroclors, organochlorine pesticides, conventionals	3 sediment core samples (2 from 0-120 cm, 1 from 120-150 cm) collected with impact corer	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	MCS (2004d)
Slip 4 early action area site characterization	Slip4-EarlyAction	2004	Slip 4 (RM 2.8-2.9 east)	PCB Aroclors, mercury	29 grab samples (van Veen) from 0-10 cm; 58 core samples (vibracorer) taken from 11 locations; 4-6 samples taken at each location to a depth of 360 cm	data validation and data quality review consistent with EPA guidelines; data collected under existing LDW RI AOC, so no data quality review is needed in this memorandum	Integral (2004)
Additional vertical characterization, Duwamish Sediment Other Area	DSOAvert char2	2004	RM 2.8-3.7 east	PCB Aroclors	28 core samples (vibracorer) taken from 15 locations; 1-3 samples from each location from 60-144 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	MCS Environmenta l (2004a)
Norfolk CSO sediment remediation project five-year monitoring program: Annual monitoring report - year 5, April 2004.	Norfolk-	2004	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-2 cm; 4 samples from 0-10 cm	QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database	King County (2005a)
Duwamish/Diagonal pre- and post-cleanup monitoring data	DuwDiag-Dredge Monitoring	2003-2004	RM 0.4-0.6 east	metals, PCB Aroclors, organochlorine pesticides, SVOCs	24 composite samples from 10 grab samples (van Veen) from 0-10 cm at 12 locations, sampled both before dredging and after dredging	QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database	King County et al. (2005)
Terminal 117 early action area site characterization	T117 Boundary Definition	2003-2004	RM 3.6-3.7 west	PCB Aroclors; metals, SVOCs on selected samples	46 grab samples (power grab or by hand from intertidal) from 0-10 cm; 101 core samples (vibracorer) from 18 locations, 3-6 samples collected at each core location to a depth of 300 cm [c]	data validation and data quality review consistent with EPA guidelines; data collected under existing LDW RI AOC, so no data quality review is needed in this memorandum	Windward et al. (2004a, b)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Final preliminary site investigation report for the South Park Bridge project	*SouthPark Bridge*	*2003*	*RM 3.3-3.4*	*metals, TBT, VOCs, SVOCs, organochlorine pesticides, PCB Aroclors, TOC*	*11 subsurface sediment samples from 2 locations (rotary drill unit) from depths up to 100 ft (samples collected at 2.5 ft intervals in top 10 ft, and at several deeper 2.5 ft intervals to 100 ft)*	*data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers as reported are acceptable for use*	*Wilbur Consulting (2004)*
Norfolk CSO sediment remediation project five-year monitoring program: Annual monitoring report - year 4, April 2003.	Norfolk-	2003	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-2 cm; 4 samples from 0-10 cm	QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database	King County (2003)
Sediment characterization results for the Duwamish River navigational channel turning basin	Turning-basin	2003	RM 4.2-4.7	metals, PCB Aroclors, organochlorine pesticides, SVOCs	5 core samples (vibracorer) taken down to depths of 144 to 390 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Anchor (2003)
Boeing Plant 2 transformer investigation – Phase 1	Plant 2-Transformer Phase1	2003	RM 3.6 east	PCB Aroclors	5 surface grab samples (by hand) taken from 0-5 cm; 46 core samples (vibracorer) taken from 13 locations; 3-5 samples at each location from 0-240 cm [b]	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Floyd Snider McCarthy (2004)
PSDDA dredged sediment characterization for Glacier NW	*Glacier NW*	*2002*	*RM 1.5 west*	*metals, PCB Aroclors, organochlorine pesticides, SVOCs*	*4 composite sediment samples from eleven cores collected by vibracorer from 0-172 cm*	*data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database*	*PIE (2002)*
Norfolk combined sewer overflow (Duwamish River) sediment cap recontamination. Phase I investigation.	Ecology-	2002	RM 4.9-5.0 east	PCB Aroclors	20 grab samples (van Veen) from 0-10 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Ecology (2003)
Norfolk CSO sediment remediation project five-year monitoring program: Annual monitoring report - year 3, April 2002.	Norfolk-monit5	2002	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-2 cm; 4 samples from 0-10 cm	QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database	King County (2002)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Data report, DSOA vertical characterization and outfall 12 data collection. Duwamish sediment other area, Boeing Plant 2	DSOAvert char	2001	RM 2.8-3.7 east	PCB Aroclors	125 core samples (vibracorer) from 37 locations; 2-6 samples at each location, most locations starting at 60 cm down to depths of 150-280 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Pentec (2001)
Norfolk CSO five-year monitoring program, Year Two, April 2001	Norfolk-	2001	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-2 cm; 4 samples from 0-10 cm	validation qualifiers added to database	King County (2001b)
Norfolk CSO five-year monitoring program – Twelve-month post construction	Norfolk-	2000	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-2 cm; 4 samples from 0-10 cm	validation qualifiers added to database	King County (2000c)
Norfolk CSO five-year monitoring program – Supplemental nearshore sampling	Norfolk-b	2000	RM 4.9-5.0 east	PCB Aroclors	Composites of 3 grab samples (van Veen) at each of 3 locations; 3 samples from 0-2 cm; 3 samples from 0-10 cm	validation qualifiers added to database	King County (2000b)
Outfall and nearshore sediment sampling report, Duwamish Facility	James Hardie	2000	RM 1.5 east	metals, PCB Aroclors, SVOCs	9 grab samples (van Veen or by hand in intertidal) from 0-10 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Weston (2000)
PSDDA sediment characterization of Duwamish River navigation channel: FY2000 operations and maintenance dredging data report	PSDDA99	1999	RM 1.9-3.4	metals, PCB Aroclors, organochlorine pesticides, SVOCs	20 composite core samples (vibracorer) taken from 18 locations; three borings made at each location; 18 samples from 0 to 120 cm; 2 samples from 120 to 240 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Striplin (SEA 2000b, a)
Norfolk CSO five-year monitoring program – Six-month post construction	Norfolk-a	1999	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-2 cm; 4 samples from 0-10 cm	validation qualifiers added to database	King County (2000d)
Norfolk CSO five-year monitoring program – Post backfill	Norfolk-	1999	RM 4.9-5.0 east	metals, PCB Aroclors, SVOCs	Composites of 3 grab samples (van Veen) at each of 4 locations; 4 samples from 0-10 cm	validation qualifiers added to database	King County (1999b)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
PSDDA sediment characterization of Duwamish River navigation channel: FY99 operations and maintenance dredging data report.	PSDDA98	1998	RM 3.5-4.6	metals, PCB Aroclors, organochlorine pesticides, SVOCs	10 core samples (vibracorer) taken from 12 locations; 7 samples taken from 0 to 60-90 cm, each from single location; 3 samples taken from 2 or 3 locations (0-60 cm, 0-120 cm, and 120-360 cm)	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Striplin (1998)
EPA Site Inspection: Lower Duwamish River	EPA SI	1998	entire LDW study area	metals, organochlorine pesticides, PCB Aroclors & selected congeners, dioxins & furans, TBT, SVOCs, VOCs	300 grab samples from 0-10 cm (van Veen); 33 core samples (vibracorer) from 0-60 and 60-120 cm from 17 locations	data collected by EPA for Superfund program; acceptable for all uses	Weston (1999)
King County combined sewer overflow water quality assessment for the Duwamish River and Elliott Bay	KC WQA	1997	Duwamish/Diagonal (RM 0.5-0.6 east); Kellogg Island (RM 0.7 west); Brandon CSO (RM 1.1 east); 8th Ave CSO (RM 2.8 west); South Park (RM 3.3 east); Hamm Creek (RM 4.4 west)	metals, PCB Aroclors, SVOCs, TBT	0-10 cm grab samples (van Veen) from 14 locations; single samples from 5 Duwamish/Diagonal locations and 4 Kellogg Island locations; weekly samples from Kellogg Island (9 samples), Brandon (13 samples), 8th Ave (9 samples), South Park (4 samples), Hamm Creek (4 samples)	validation qualifiers added to database	King County (1999a)
Duwamish Waterway Phase 1 site characterization	Boeing SiteChar	1997	RM 1.8-2.0 west; Slip 4 (RM 2.8-2.9 east); RM 3.6-4.0; RM 4.2-5.0 east	metals, PCB Aroclors, SVOCs	88[b] grab samples (van Veen) from 0-10 cm	accepted by EPA for all uses	Exponent (1998)
Duwamish Waterway sediment characterization study	NOAA SiteChar	1997	entire LDW study area	total PCBs, selected PCB congeners, total PCTs	328 grab samples (van Veen) from 0-10 cm	validation qualifiers added to database; congener data not appropriate for use in Phase 2 risk assessments	NOAA (1997, 1998)
Seaboard Lumber site, Phase 2 site investigation	Seaboard-	1996	RM 0.4-0.7 west	metals, PCB Aroclors, SVOCs	20 grab samples (van Veen) from 0-10 cm	accepted by EPA for all uses	Herrera (1997)
RCRA Facility Investigation Duwamish Waterway sediment investigation, Plant 2 – Phase 2b	Plant 2 RFI-2b	1996	RM 2.8-3.7 east	metals, PCB Aroclors, SVOCs	39 grab samples (van Veen) from 0-10 cm; 44 core samples (vibracorer) from 15 locations – 2 to 4 samples per core, up to 480 cm below mudline	validation qualifiers J+/J- changed to JH/JL; accepted by EPA for all uses	Weston (1998)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Duwamish/Diagonal cleanup Study – Phase 2	Duw/-2	1996	RM 0.4-0.6 east	metals, PCB Aroclors, SVOCs, TPH	36 grab samples (van Veen) from 0-10 cm; 53 core samples (vibracorer) from 15 locations – 1 to 6 samples per core, up to 270 cm below mudline	validation qualifiers added to database	King County (2000a)
Duwamish/Diagonal cleanup Study – Phase 1.5	Duw/-1.5	1995	RM 0.4-0.6 east	metals, PCB Aroclors, SVOCs, TBT	12 grab samples (van Veen) from 0-10 cm	validation qualifiers added to database	King County (2000a)
Norfolk CSO sediment cleanup study – Phase 3	Norfolk-	1995	RM 4.9-5.0 east	PCB Aroclors	16 grab samples (van Veen) from 0-10 cm	validation qualifiers added to database	King County (1996)
Norfolk CSO sediment cleanup study – Phase 2	Norfolk-	1995	RM 4.9-5.0 east	metals, organochlorine pesticides, PCB Aroclors and selected congeners, SVOCs, VOCs, TPH	12 grab samples (van Veen) from 0-10 cm; 27 core samples (vibracorer) from 3 locations at 30 or 60 cm intervals up to 180 cm below mudline	validation qualifiers added to database	King County (1996)
RCRA Facility Investigation Duwamish Waterway sediment investigation, Plant 2 – Phase 2a	Plant 2 RFI-2a	1995	RM 2.8-3.7 east	metals, PCB Aroclors SVOCs	54 grab samples (van Veen) from 0-10 cm	validation qualifiers J+/J- changed to JH/JL; accepted by EPA for all uses	Weston (1998)
RCRA Facility Investigation Duwamish Waterway sediment investigation, Plant 2 – Phase 1	Plant 2 RFI-1	1995	RM 2.8-3.7 east	metals, PCB Aroclors, TPH, SVOCs, VOCs	65 grab samples (van Veen) from 0-10 cm; 22 core samples (vibracorer) from 12 locations at 15-45 cm intervals down to 135 cm below mudline	validation qualifiers J+/J- changed to JH/JL; accepted by EPA for all uses	Weston (1998)
Duwamish/Diagonal cleanup Study – Phase 1	Duw/-1	1994	RM 0.4-0.6 east	metals, organochlorine pesticides, PCB Aroclors, SVOCs, TBT	38 grab samples (van Veen) from 0-10 cm; 2 grab samples (van Veen) from 0-15 cm; 12 core samples (vibracorer) from 2 locations at 15-30 cm intervals down to 150 cm below mudline	validation qualifiers added to database	King County (2001a)
Norfolk CSO sediment cleanup study – Phase 1	Norfolk-	1994	RM 2.8-3.7 east	metals, organochlorine pesticides, SVOCs, PCB Aroclors, VOCs	21 grab samples (van Veen) from 0-10 cm; 3 core samples from 1 location – 15-30, 30-45, and 45-60 cm	validation qualifiers added to database	King County (1996)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Rhône-Poulenc RCRA Facility Investigation for the Marginal Way facility – Round 2	Rhône-RFI-2	1994	Slip 6 (RM 4.2 east)	metals, SVOCs, PCB Aroclors 1254 and 1260, organochlorine pesticides	7 grab samples (van Veen) from 0-2 cm	accepted by EPA for all uses	Rhône-Poulenc (1995)
Results of sampling and analysis, sediment monitoring plan, Duwamish Shipyard, Inc.	Duwamish	1993	RM 1.4-1.5 west	metals, SVOCs, TBT	5 grab samples (van Veen) from 0-10 cm	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Hart Crowser (1993)
Harbor Island Remedial Investigation	Harbor Island RI	1991	RM 0.0-0.4	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs, TPH, TBT	34 grab samples (van Veen) from 0-10 cm	data collected by EPA for Superfund program; acceptable for all uses	Weston (1993)
Tissue Chemistry							
East Waterway, Harbor Island Superfund site: Technical memorandum: Tissue chemistry results for juvenile chinook salmon collected from Kellogg Island and East Waterway.	EW-Salmon	2002	Kellogg Island (RM 0.8-0.9 west)	PCB Aroclors, mercury	12 composite samples of whole-body juvenile chinook salmon (6 from LDW, 6 from East Waterway) collected by beach seine; each sample consisted of 6-7 fish	data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database	Windward (2002)
NMFS Duwamish injury assessment project	NOAA-salmon2	2000	Kellogg Island (RM 0.8-0.9 west), Slip 4 (RM 2.8 east)	PCB congeners, organochlorine pesticides (salmon); PCB Aroclors (shiner perch)	29 samples of whole-body juvenile chinook salmon collected by beach seine (9 were composites of 3-10 fish, 20 were individual fish); 6 composite samples of chinook salmon stomach contents; 2 composite samples of whole-body shiner perch	neither EPA nor LDWG plan to conduct a review of the salmon portion of this dataset because LDWG's 2003 juvenile chinook salmon sampling results make the effort required for such a review unwarranted, as documented by Windward (2005a); therefore, these data will not be used in Phase 2; the shiner perch portion of the dataset has been previously approved for all uses by EPA (2003)	NMFS (2002)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Waterway Sediment Operable Unit Harbor Island Superfund Site	WSOU	1998	RM 0.4-0.9 (crab), RM 2.0-4.4 (English sole), RM 0.0-0.2 (striped perch)	Hg, TBT, PCB Aroclors	3 English sole skinless fillet composite samples (5 fish/composite caught by trawl); 3 red rock crab edible meat composite samples (5 crab/composite caught by crab trap); 1 Dungeness crab edible meat sample (1 individual caught by crab trap); 3 striped perch skinless fillet samples (5 fish/composite for 2 samples, 1 individual fish for 1 sample; caught by diver)	collected under EPA oversight for a previously conducted Superfund risk assessment; previously approved for all uses by EPA (2003)	ESG (1999)
King County Combined Sewer Overflow Water Quality Assessment for the Duwamish River and Elliott Bay	KC WQA	1996-1997	RM 0.5-0.9	metals, TBT, SVOCs, PCB Aroclors	3 English sole skinless fillet composite samples (20 fish/composite caught by trawl); 3 English sole whole-body composite samples[d] (20 fish/composite caught by trawl); 2 Dungeness crab edible meat composite samples (3 crabs/sample caught by crab trap); 1 Dungeness crab hepatopancreas composite sample (3 crabs caught by crab trap); 4 amphipod composite samples (caught by benthic sledge); 3 shiner surfperch whole-body composite samples (10 fish/sample caught by trawl); 22 mussels edible meat composite samples (20 mussels/sample collected by hand) [e]	add validation qualifiers; English sole whole-body composite samples not acceptable for all uses because they don't truly represent whole bodies	King County (1999a)
Puget Sound Ambient Monitoring Program – annual sampling	PSAMP-fish	1992	RM 0.4-1.3	SVOCs, organochlorine pesticides, PCB Aroclors, As, Cu, Pb, Hg	3 English sole skinless fillet (10-20 fish/sample collected by trawl)	acceptable for all uses	West et al. (2001)
		1995	RM 0.4-1.3	organochlorine pesticides, PCB Aroclors, As, Cu, Pb, Hg	3 English sole skinless fillet composite samples (10-20 fish/sample collected by trawl)	acceptable for all uses	

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
		1997	RM 0.4-1.3	Hg, organochlorine pesticides	3 English sole skinless fillet composite samples (10-20 fish/sample collected by trawl)	acceptable for all uses	
Elliott Bay/Duwamish River Fish Tissue Investigation	EVS 95	1995	RM 1.1-1.4	PCB Aroclors, Hg, MeHg, TBT	3 English sole skinless fillet composite samples (6 fish/sample collected by trawl)	collected under EPA oversight for a previously conducted Superfund risk assessment; previously approved for all uses by EPA (2003)	Battelle (1996); EVS (unpublished); Frontier Geosciences (1996)
Contaminant exposure and associated biochemical effects in outmigrant juvenile chinook salmon from urban and non-urban estuaries of Puget Sound	NOAA-salmon	1989-1990	RM 0.7	organochlorine pesticides, PCB Aroclors, PAHs	14 composite samples of whole-body juvenile chinook salmon collected by beach seine (2-10 fish/sample); 6 composite samples of stomach contents (10 fish/sample) [f]	neither EPA nor LDWG plan to conduct a review of this dataset because LDWG's 2003 juvenile chinook salmon sampling results make the effort required for such a review unwarranted; therefore, these data will not be used in Phase 2	Varanasi et al. (1993)
Other Chemistry							
Duwamish River/Elliott Bay/Green River Water Column PCB Congener Survey	*KC 2005 Water Sampling*	*2005*	*RM 0 and 3.3*	*PCB congeners, conventional parameters*	*28 water samples collected over 4 months at 4 locations; 2 locations in the Duwamish River were sampled at both surface and bottom depths of the water column; all samples analyzed for PCB congeners and conventional field parameters*	*QC consistent with previous King County events approved for all uses; validation qualifiers added to database; Windward evaluated field and laboratory replicate samples for method blank contamination*	Mickelson and Williston (2006)
Rhône-Poulenc porewater	*Rhô nePoulenc2004*	*2004*	*RM 4.0-4.3 east*	*VOCs, metals, pesticides, PCB Aroclors*	*16 porewater samples for chemistry parameters (1 duplicate sample, and 1 additional sample analyzed only for field parameters) collected using a piezometer or a seepage meter*	*data validation consistent with EPA guidelines; laboratory Form 1s present in data report; validation qualifiers added to database*	*EPA (2005b)*
RCRA Facility Investigation Duwamish Waterway sediment investigation, Plant 2 – Phase 1	Plant 2 RFI-1	1995	RM 2.8 – 3.7 east	metals, PCB Aroclors, TPH, SVOCs, VOCs	22 seep water	comprehensive data quality review not warranted because EPA has previously approved these data for all uses in the RCRA program	Weston (1998)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
Rhône-Poulenc RCRA Facility Investigation for the Marginal Way facility – Round 3	Rhône-RFI-3	1995	Slip 6 (RM 4.2 east)	VOCs	7 seep water	comprehensive data quality review not warranted because EPA has previously approved these data for all uses in the RCRA program	Rhône-(1996)
Supplemental remedial investigation and feasibility study. Great Western International	Great Western Apr-94	1994	RM 2.2 east	VOCs	6 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Hart Crowser (1994a)
	Great Western Jul-94	1994		VOCs	9 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Hart Crowser (1994b)
	Great Western Nov-94	1994		VOCs	7 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Hart Crowser (1996)
	Great Western May-95	1995		VOCs	7 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Hart Crowser (1996)
	Great Western-1995 Annual	1995		VOCs	7 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Hart Crowser (1996)
	Great Western-1996 Annual	1996		VOCs	5 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Hart Crowser (1997)

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Actions/Conclusions [a]	Reference
	Great Western-1997 Annual	1997		VOCs	4 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Terra Vac, Floyd & Snider (2000)
	Great Western-1998 Annual	1998		VOCs	9 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Terra Vac, Floyd & Snider (2000)
Supplemental remedial investigation and feasibility study. Great Western International (cont.)	Great Western-Embayment Study	1998		VOCs	10 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Terra Vac, Floyd & Snider (2000)
	Great Western-1999 Annual	1999		VOCs, SVOCs	5 seep water	comprehensive data quality review not warranted because Ecology has previously approved these data for all uses in the MTCA program	Terra Vac, Floyd & Snider (2000)
King County combined sewer overflow water quality assessment for the Duwamish River and Elliott Bay [g]	KC WQA	1996-1997	Duwamish/Diagonal CSO (RM 0.5 east), Brandon CSO (RM 1.1 east), SW Michigan CSO (RM 2.0 east), Norfolk CSO (RM 4.9 east) [h]	metals, SVOCs, conventionals, PCB Aroclors	1,249 surface water samples collected using Niskin and van Dorn samplers. Samples were collected from multiple depths (near-surface and near-bottom) and up to 3 locations horizontally across the waterway. Samples were collected weekly and also during storm events. [h]	QC consistent with previous King County events approved for all uses by EPA; validation qualifiers added to database	King County (1999a)

Note: *New datasets discussed in this memorandum are shown in italics*

[a] All events listed on this table are: 1) considered acceptable for all uses in Phase 2, even if not specifically mentioned, 2) acceptable for some uses, but not others, as noted, or 3) undergoing additional review by EPA; acceptability determination is still pending

[b] Sample total does not include three reference samples that were collected upstream of the study area

[c] Does not include soil, groundwater, and seep data collected concurrently during this investigation

[d] Samples are of remnant tissues following the subsampling of fillet tissue. In addition, livers were removed from some fish in the composite samples.

[e] Sample counts do not include data from cooked crab and English sole samples or data from caged mussel deployments. These data will not be used in the Phase 2 RI

[f] Six composite samples of juvenile chinook salmon livers were also analyzed, but these data will not be used in the Phase 2 RI.

Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

[g] Only water chemistry data. Sediment and tissue chemistry data from this sampling event were previously reviewed in Windward (2005b).

[h] Samples collected outside the LDW study area were also included in this sampling event

AOC – administrative order on consent
CSO – combined sewer overflow
MeHg – methylmercury
MTCA – Model Toxics Control Act
NOAA – National Oceanic and Atmospheric Administration
PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
PCT – polychlorinated terphenyl
RCRA – Resource Conservation and Recovery Act
SVOC – semivolatile organic compound
TBT – tributyltin
TPH – total petroleum hydrocarbons
VOC – volatile organic compound

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Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

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Table E.2-1, cont. Chemistry datasets acceptable for all uses in the RI, including data quality review summaries

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Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Action/ Conclusions	Reference
Sediment Chemistry							
Dredge material characterization Duwamish Yacht Club	Duwam Yacht Club	1999	RM 4.1 west	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs, TBT	6 core samples (vibracorer), each made from 2 separate cores collected to 50-65 cm	not reviewed by Windward; sediment characterized has been dredged	Hart Crowser (1999)
Sediment sampling and analysis James Hardie Gypsum Inc. – Round 1	Hardie Gypsum-1	1999	RM 1.6-1.7 east	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs	5 core samples (vibracorer) made from single cores down to 120 cm	not reviewed by Windward; sediment characterized has been dredged	Spearman (1999)
Sediment sampling and analysis James Hardie Gypsum Inc. – Round 2	Hardie Gypsum-2	1999	RM 1.6-1.7 east	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs	9 core samples (vibracorer) made from single cores down to 90 cm	not reviewed by Windward; sediment characterized has been dredged	Spearman (1999)
Dredge material characterization Hurlen Construction Company & Boyer Alaska Barge Lines berthing areas	Hurlen-	1998	RM 2.4-2.7 west	metals, organochlorine pesticides, PCB Aroclors, SVOCs, TBT, TPH	6 core samples (vibracorer), 2 from Boyer, 4 from Hurlen, each made from 2 separate cores collected to 60-120 cm	not reviewed by Windward; sediment characterized has been dredged	Hart Crowser (1998)
Sediment quality in Puget Sound. Year 2 – Central Puget Sound	PSAMP/	1998	RM 0.5, 0.6, 1.8	metals, PCB Aroclors, organochlorine pesticides, SVOCs, TBT	3 grab samples (van Veen) collected from 0-2 cm	LDWG did not conduct a review of this dataset because the QA/QC information was not readily available. The effort that would have been required to obtain this QA/QC information was not justified for the purposes of the Phase 2 RI and risk assessments.	Ecology (2000)
RCRA facility investigation (RFI) report for the Marginal Way facility. Round 3 data and sewer sediment technical memorandum.	RhôneRFI3	1996	RM 4.2 east	metals, phenols (4 samples)	16 grab samples collected by hand from 0-10 cm	data validation consistent with EPA guidelines, but laboratory Form 1s not present in data report; Phase 2 RI DQOs not met, so not acceptable for all uses	Rhône-Poulenc (1996)

Table E.2-2, cont. Chemistry datasets not acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Action/ Conclusions	Reference
Proposed dredging of Slip No. 4, Duwamish River, Seattle, WA	Slip4-wley	1996	RM 2.8 east	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs, TBT	4 core samples (vibracorer) composited from sediment at 9 locations collected to a depth of 70-130 cm	not reviewed by Windward; sediment characterized has been dredged	PTI (1996)
1996 USACE Duwamish O&M	PSDDA96	1996	RM 4.2-4.6	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs,	4 core samples (vibracorer) collected to a depth of 120 cm	not reviewed by Windward; sediment characterized has been dredged	Striplin (1996)
Lone Star Northwest and James Hardie Gypsum – Kaiser dock upgrade	Lone Star-Gypsum	1995	RM 1.6 east	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs	5 core samples (vibracorer); 4 collected to a depth of 120-150 cm, 1 at 120-360 cm	not reviewed by Windward; sediment characterized has been dredged	Hartman (1995)
Rhône-Poulenc RCRA Facility Investigation for the Marginal Way facility – Round 1	Rhône-RFI-1	1994	RM 4.2 east	metals, SVOCs, PCB Aroclors, organochlorine pesticides	7 grab samples (van Veen) collected from 0-15 cm	data validation consistent with EPA guidelines, but laboratory Form 1s not present in data report; Phase 2 RI DQOs not met, so not acceptable for all uses	Rhône-Poulenc (1995)
Lone Star Northwest – West Terminal US ACOE – Seattle	Lone Star 92	1992	RM 1.5 east	metals, organochlorine pesticides, PCB Aroclors, SVOCs, VOCs	1 core sample (vibracorer), made from 2 separate cores collected to 120 cm	not reviewed by Windward; sediment characterized has been dredged	Hartman (1992)
Sediment sampling and analysis, South Park Marina, Duwamish Waterway, Seattle, Washington.	South Park Marina	1991	RM 3.5 west	metals, SVOCs, PCB Aroclors, organochlorine pesticides	2 core samples (vibracorer), each made from 2 separate cores collected to 120 cm	data not reviewed because of age of data; sediment characterized has been dredged	Spearman (1991)
Tissue chemistry							
Preliminary exposure assessment of dioxin-like chlorobiphenyls in great blue herons of the lower Duwamish River	Heron	1998	heron colony west of RM 0.5 west	PCB congeners	6 samples taken from 5 great blue heron eggs collected by hand from nest (5 egg samples, 1 egg yolk sample)	no formal data validation conducted, laboratory Form 1s not present in data report; EPA determined QA/QC data were not readily available	Krausmann (2002)

Table E.2-2, cont. Chemistry datasets not acceptable for all uses in the RI, including data quality review summaries

Sampling Event	Event Code	Year	Location	Chemicals	Sample Summary	Data Quality Review Action/ Conclusions	Reference
Puget Sound Ambient Monitoring Program – annual sampling	PSAMP- fish	1992	RM 0.7	SVOCs, organochlorine pesticides, PCB Aroclors, As, Cu, Pb, Hg	6 coho salmon and 6 chinook salmon composite fillet samples (5 fish/composite caught by gill net)	Adult salmon; data were summarized in the Phase 1 RI, but were not used in the risk assessments because almost all the chemicals in these fish are associated with exposure outside the LDW	West et al. (2001)
		1993 – 1996	RM 0.7	organochlorine pesticides, PCB Aroclors, As, Cu, Pb, Hg	1993: 5 coho salmon and 6 chinook salmon composite fillet samples (5 fish/composite caught by gill net); 1994: 5 coho salmon composite fillet samples and 6 chinook salmon filet samples (5 composite, 1 individual) (5 fish/composite caught by gill net); 1995: 7 coho salmon (6 composite, 1 individual) and 15 chinook salmon filet samples (13 composite, 2 individual) (5 fish/composite caught by gill net); 1996: 19 coho salmon (5 composite, 14 individual) and 49 chinook salmon fillet samples (all individual) (5 fish/composite caught by gill net)		
		1998	RM 0.7	Hg, organochlorine pesticides	13 coho salmon composite fillet samples (5 fish/composite caught by gill net)		

DQO– data quality objective
EPA – US Environmental Protection Agency
NOAA – National Oceanic and Atmospheric Administration
PCB – polychlorinated biphenyl
PSAMP – Puget Sound Ambient Monitoring Program
QA/QC – quality assurance/quality control
RM – river mile
SVOC – semivolatile organic compound
TBT – tributyltin
TPH – total petroleum hydrocarbons
VOC – volatile organic compound

Sources:

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Table E.2-3. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
Boeing SiteChar	R21	194955	1275772	10/9/97	SD0009		10	superseded by LDW-SS113b - 1 ft away	1112
Boeing SiteChar	R24	194553	1275818	10/10/97	SD0013		10	superseded by LDW-SS117 - 1 ft away	1116
Boeing SiteChar	R30	194391	1276226	10/11/97	SD0021		10	superseded by LDW-SS119 - 2 ft away	1124
Boeing SiteChar	R40	193044	1277453	10/13/97	SD0032		10	superseded by LDW-SS127 - 1ft away	1135
Boeing SiteChar	R42	192917	1277567	10/13/97	SD0033		10	superseded by LDW-SS129 - 8ft away	1136
Boeing SiteChar	R45	192810	1277407	10/16/97	SD0070		10	superseded by LDW-SS130 - less than 1ft away	1173
Boeing SiteChar	R7	201578	1269271	10/15/97	SD0056		10	superseded by LDW-SS75 - 6 ft away	1159
Boeing SiteChar	R86	190215	1278519	10/19/97	SD0091		10	sample falls inside 1999 Norfolk dredge area - exclude	1194
Boeing SiteChar	R87	190257	1278543	10/18/97	SD0079		10	superseded by Ecology-Norfolk 5 and 7	1182
Duw/Diag-1	DUD001	209120	1267153	8/17/94	L4288-30		10	superseded by KC WQA loc. DD-1 - exclude	1214
Duw/Diag-1	DUD006	209059	1267092	8/10/94	L4288-5		10	superseded by KC WQA loc. DD-2 - exclude	1219
Duw/Diag-1	DUD022	208929	1267040	8/10/94	L4288-21		10	superseded by KC WQA loc. DD-3 - exclude	1253
Duw/Diag-1	DUD032	208978	1266889	8/12/94	L4288-27		10	superseded by 1995 location DUD032, samp L7279-3 - exclude	1268
Duw/Diag-1	DUD034	208785	1266933	8/12/94	L4288-28		10	superseded by KC WQA loc. DD-4 - exclude	1271
Duw/Diag-1.5	DUD036	208245	1267118	11/11/95	L7279-4		10	superseded by DUD_4C - exclude	1273
Duw/Diag-1.5	DUD039	208606	1266844	11/9/95	L7279-8		10	superseded by KC WQA loc. DD-5 - exclude	1276
Duw/Diag-1.5	DUD042	209785	1266880	11/11/95	L7279-11		10	superseded by LDW-SS17 - 3 ft away	1279
DuwamishShipyard	SS-2	204599	1268050	8/17/93	SS-2		7.5	superseded by LDW-SS48, use most recent data	18472
DuwamishShipyard	SS-3	204476	1268107	8/17/93	SS-3		7.5	superseded by LDW-SS49, use most recent data	18473
DuwamishShipyard	SS-3	204476	1268107	8/17/93	SS-6	duplicate	7.5	superseded by LDW-SS49, use most recent data	18493
DuwamishShipyard	SS-4	204181	1268184	8/17/93	SS-4		7.5	superseded by LDW-SS55, use most recent data	18474
DuwamishShipyard	SS-5	203667	1268323	8/17/93	SS-5		7.5	inside 2005 Glacier NW dredge area	18475
DuwDiagApril2005	DUD_1A	209089	1267047	4/27/05	L35394-1		8	on top of dredged area cap, not appropriate for baseline group - exclude	30979
DuwDiagApril2005	DUD_1B	208484	1267060	4/27/05	L35394-7		10	on top of dredged area cap, not appropriate for baseline group - exclude	30985
DuwDiagApril2005	DUD_2A	208902	1267139	4/27/05	L35394-2		5	on top of dredged area cap, not appropriate for baseline group - exclude	30980
DuwDiagApril2005	DUD_3A	208973	1266951	4/27/05	L35394-3		6	on top of dredged area cap, not appropriate for baseline group - exclude	30981
DuwDiagApril2005	DUD_4A	209354	1266888	4/27/05	L35394-4		10	on top of dredged area cap, not appropriate for baseline group - exclude	30982
DuwDiagApril2005	DUD_5A	209410	1266805	4/27/05	L35394-5		8	on top of dredged area cap, not appropriate for baseline group - exclude	30983
DuwDiagApril2005	DUD_5A	209410	1266805	4/27/05	L35394-6		7	on top of dredged area cap, not appropriate for	30984

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
								baseline group - exclude	
DuwDiagJan2005	DUD_10C	209517	1266663	2/1/05	L34524-12		8	post-remediation, not appropriate for baseline group - exclude	30952
DuwDiagJan2005	DUD_11C	209535	1266844	2/1/05	L34524-13		7	post-remediation, not appropriate for baseline group - exclude	30953
DuwDiagJan2005	DUD_12C	209630	1266813	2/2/05	L34524-14		9	post-remediation, not appropriate for baseline group - exclude	30954
DuwDiagJan2005	DUD_13C	207853	1267236	2/2/05	L34524-15		10	post-remediation, not appropriate for baseline group - exclude	30955
DuwDiagJan2005	DUD_14C	208000	1267196	2/2/05	L34524-16		10	post-remediation, not appropriate for baseline group - exclude	30956
DuwDiagJan2005	DUD_15C	207970	1267059	2/2/05	L34524-17		10	post-remediation, not appropriate for baseline group - exclude	30957
DuwDiagJan2005	DUD_16C	208764	1266837	2/2/05	L34524-18		10	post-remediation, not appropriate for baseline group - exclude	30958
DuwDiagJan2005	DUD_17C	208885	1266739	2/2/05	L34524-19		10	post-remediation, not appropriate for baseline group - exclude	30959
DuwDiagJan2005	DUD_18C	209451	1266630	2/2/05	L34524-20		7	post-remediation, not appropriate for baseline group - exclude	30961
DuwDiagJan2005	DUD_19C	209545	1266746	2/1/05	L34524-21		5	post-remediation, not appropriate for baseline group - exclude	30962
DuwDiagJan2005	DUD_1C	208754	1267168	2/1/05	L34524-1		6	post-remediation, not appropriate for baseline group - exclude	30949
DuwDiagJan2005	DUD_20C	209779	1266769	2/2/05	L34524-22		8	post-remediation, not appropriate for baseline group - exclude	30963
DuwDiagJan2005	DUD_2C	208651	1267175	1/31/05	L34524-2		9	post-remediation, not appropriate for baseline group - exclude	30960
DuwDiagJan2005	DUD_3C	208144	1267146	1/31/05	L34524-3		10	post-remediation, not appropriate for baseline group - exclude	30964
DuwDiagJan2005	DUD_4C	208239	1267116	1/31/05	L34524-4		7	post-remediation, not appropriate for baseline group - exclude	30965
DuwDiagJan2005	DUD_4C	208239	1267116	1/31/05	L34524-5	replicate	7	post-remediation, not appropriate for baseline group - exclude	30966
DuwDiagJan2005	DUD_5C	208263	1267025	1/31/05	L34524-6		10	post-remediation, not appropriate for baseline group - exclude	30967
DuwDiagJan2005	DUD_6C	208501	1266950	1/31/05	L34524-7		9	post-remediation, not appropriate for baseline group - exclude	30968
DuwDiagJan2005	DUD_7C	208486	1266902	1/31/05	L34524-8		9	post-remediation, not appropriate for baseline group - exclude	30969
DuwDiagJan2005	DUD_8C	208920	1266864	2/1/05	L34524-10	replicate	7	post-remediation, not appropriate for baseline group - exclude	30950
DuwDiagJan2005	DUD_8C	208920	1266864	2/1/05	L34524-9		6	post-remediation, not appropriate for baseline group - exclude	30970
DuwDiagJan2005	DUD_9C	209157	1266784	1/31/05	L34524-11		7	post-remediation, not appropriate for baseline group - exclude	30951
DuwDiagJune2004	DUD_1A	209089	1267047	6/1/04	L32085-1		6	on top of dredged area cap, not appropriate for	30837

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
								baseline group - exclude	
DuwDiagJune2004	DUD_1B	208484	1267060	6/1/04	L32085-7		6	on top of dredged area cap, not appropriate for baseline group - exclude	30842
DuwDiagJune2004	DUD_2A	208902	1267139	6/1/04	L32085-2		5	on top of dredged area cap, not appropriate for baseline group - exclude	30838
DuwDiagJune2004	DUD_2B	208621	1267079	6/1/04	L32085-8		5	on top of dredged area cap, not appropriate for baseline group - exclude	30843
DuwDiagJune2004	DUD_3B	208716	1267049	6/1/04	L32085-9		6	on top of dredged area cap, not appropriate for baseline group - exclude	30844
DuwDiagJune2004	DUD_4A	209354	1266888	6/1/04	L32085-4		10	on top of dredged area cap, not appropriate for baseline group - exclude	30839
DuwDiagJune2004	DUD_5A	209410	1266805	6/1/04	L32085-5		10	on top of dredged area cap, not appropriate for baseline group - exclude	30840
DuwDiagJune2004	DUD_5A	209410	1266805	6/1/04	L32085-6		10	on top of dredged area cap, not appropriate for baseline group - exclude	30841
DuwDiagMarch2005	DUD_14C	208000	1267196	3/16/05	L34971-16		10	on top of dredged area cap, not appropriate for baseline group - exclude	30971
DuwDiagMarch2005	DUD_15C	207970	1267059	3/16/05	L34971-17		10	on top of dredged area cap, not appropriate for baseline group - exclude	30972
DuwDiagMarch2005	DUD_3C	208144	1267146	3/16/05	L34971-3		10	on top of dredged area cap, not appropriate for baseline group - exclude	30973
DuwDiagMarch2005	DUD_4C	208239	1267116	3/16/05	L34971-4		9	on top of dredged area cap, not appropriate for baseline group - exclude	30974
DuwDiagMarch2005	DUD_4C	208239	1267116	3/16/05	L34971-5		9	on top of dredged area cap, not appropriate for baseline group - exclude	30975
DuwDiagMarch2005	DUD_5C	208263	1267025	3/24/05	L34971-6		10	on top of dredged area cap, not appropriate for baseline group - exclude	30976
DuwDiagMarch2005	DUD_6C	208501	1266950	3/24/05	L34971-7		10	on top of dredged area cap, not appropriate for baseline group - exclude	30977
DuwDiagMarch2005	DUD_7C	208486	1266902	3/24/05	L34971-8		10	on top of dredged area cap, not appropriate for baseline group - exclude	30978
DuwDiagonal-March2004	DUD_10C	209517	1266663	3/30/04	L31520-12		10	collected immediately post-dredging event - exclude	37980
DuwDiagonal-March2004	DUD_11C	209535	1266844	3/30/04	L31520-13		10	collected immediately post-dredging event - exclude	37981
DuwDiagonal-March2004	DUD_12C	209630	1266813	3/30/04	L31520-14		10	collected immediately post-dredging event - exclude	37982
DuwDiagonal-March2004	DUD_1C	208754	1267168	3/29/04	L31520-1		10	collected immediately post-dredging event - exclude	37990
DuwDiagonal-March2004	DUD_2C	208651	1267175	3/29/04	L31520-2		10	collected immediately post-dredging event - exclude	37983
DuwDiagonal-March2004	DUD_3C	208144	1267146	3/29/04	L31520-3		10	collected immediately post-dredging event - exclude	37984
DuwDiagonal-March2004	DUD_4C	208239	1267116	3/29/04	L31520-4		10	collected immediately post-dredging event - exclude	37985
DuwDiagonal-March2004	DUD_4C	208239	1267116	3/29/04	L31520-5	replicate	10	collected immediately post-dredging event -	37993

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
								exclude	
DuwDiagonal-March2004	DUD_5C	208263	1267025	3/29/04	L31520-6		10	collected immediately post-dredging event - exclude	37986
DuwDiagonal-March2004	DUD_6C	208501	1266950	3/30/04	L31520-15	replicate	10	collected immediately post-dredging event - exclude	37992
DuwDiagonal-March2004	DUD_6C	208501	1266950	3/30/04	L31520-7		10	collected immediately post-dredging event - exclude	37987
DuwDiagonal-March2004	DUD_7C	208486	1266902	3/30/04	L31520-8		10	collected immediately post-dredging event - exclude	37988
DuwDiagonal-March2004	DUD_8C	208920	1266864	3/30/04	L31520-10	replicate	10	collected immediately post-dredging event - exclude	37994
DuwDiagonal-March2004	DUD_8C	208920	1266864	3/30/04	L31520-9		10	collected immediately post-dredging event - exclude	37989
DuwDiagonal-March2004	DUD_9C	209157	1266784	3/30/04	L31520-11		10	collected immediately post-dredging event - exclude	37991
Ecology-Norfolk	10	190201	1278537	7/9/02	288139		10	superseded by LDW-SS341- 9 ft away	18307
Ecology-Norfolk	17	190168	1278591	7/9/02	288146		10	superseded by LDW-SS343 - 1 ft away	18314
EPA SI	DR019	206530	1268204	8/17/98	SD-DR019-0000		10	superseded by LDW-SS32, less than 1ft away	784
EPA SI	DR020	206549	1268450	8/17/98	SD-DR020-0000		10	superseded by LDW-SS31, 1 ft away	785
EPA SI	DR021	206718	1267822	8/17/98	SD-DR021-0000		10	superseded by LDW-SS319 - 7 ft away	786
EPA SI	DR022	206228	1267936	8/17/98	SD-DR022-0000-CC		10	sample falls within 2004 Lehigh NW dredge, so exclude	789
EPA SI	DR028	204607	1268471	8/17/98	SD-DR028-0000		10	superseded by LDWB4b2 ft away - exclude	797
EPA SI	DR030	204436	1268521	8/17/98	SD-DR030-0000		10	superseded by LDW-SS50, 2ft away	798
EPA SI	DR031	211452	1265523	8/11/98	SD-DR031-0000		10	north of RM 0	799
EPA SI	DR035	210194	1266104	8/11/98	SD-DR035-0000		10	superseded by LDW-SS12, 2 ft away	803
EPA SI	DR053	204908	1267941	8/31/98	SD-DR053-0000-CC		10	superseded by LDW-SS44, 2ft away	823
EPA SI	DR065	204315	1268452	8/17/98	SD-DR065-0000		10	superseded by LDW-SS52, 1ft away	837
EPA SI	DR076	211210	1265996	8/24/98	SD-DR076-0000		10	superseded by LDW-SS5, 2 ft away	849
EPA SI	DR079	209860	1266467	8/24/98	SD-DR079-0000		10	superseded by LDW-SS15, 2 ft away	852
EPA SI	DR085	207054	1267392	8/31/98	SD-DR085-0000		10	superseded by LDW-SSB2b - 6 ft away	858
EPA SI	DR087	206171	1267735	8/12/98	SD-DR087-0000		10	superseded by LDW-SS37, 3 ft away	860
EPA SI	DR088	205507	1267960	8/31/98	SD-DR088-0000		10	superseded by LDW-SS40, 1ft away	861
EPA SI	DR093	203278	1268849	8/17/98	SD-DR093-0000		10	sample inside 1999 James Hardie dredge area, exclude	866
EPA SI	DR096	203090	1269369	9/2/98	SD-DR096-0000		10	sample inside 1999 Glacier ready mix dredge area, exclude	869
EPA SI	DR097	203284	1269528	8/20/98	SD-DR097-0000		10	superseded by LDW-SS63, 10 ft away	870
EPA SI	DR106	201545	1270217	8/19/98	SD-DR106-0000		10	superseded by LDW-SS76, 1ft away	881

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
EPA SI	DR113	200851	1270429	8/19/98	SD-DR113-0000-CC		10	superseded by LDW-SS81, 1 ft away	892
EPA SI	DR123	203890	1267968	9/14/98	SD-DR123-0000		10	superseded by LDW-SS57, 7 ft away	902
EPA SI	DR125	204137	1268161	8/31/98	SD-DR125-0000		10	sample inside Glacier NW 2005 dredge area - exclude	904
EPA SI	DR131	201998	1268809	8/13/98	SD-DR131-0000-CC		10	superseded by LDW-SS70, 1 ft away	910
EPA SI	DR142	199659	1271055	8/20/98	SD-DR142-0000		10	sample inside 1998 Hurlen-Boyer Dredge area - exclude	923
EPA SI	DR143	199472	1271243	8/31/98	SD-DR143-0000		10	sample inside 1998 Hurlen-Boyer Dredge area - exclude	924
EPA SI	DR145	203146	1268825	8/17/98	SD-DR145-0000		10	inside 1999 James Hardie Dredge area - exclude	926
EPA SI	DR160	204365	1268236	8/12/98	SD-DR160-0000		10	superseded by LDW-SS51, 2 ft away	941
EPA SI	DR163	203131	1268774	8/27/98	SD-DR163-0000		10	inside 1999 James Hardie Dredge area - exclude	944
EPA SI	DR175	198641	1272581	8/20/98	SD-DR175-0000		10	superseded by LDW-SS94, 1 ft away	958
EPA SI	DR186	195288	1275958	8/27/98	SD-DR186-0000		10	superseded by LDW-SS111, 1 ft away	969
EPA SI	DR187	194730	1276134	8/27/98	SD-DR187-0000		10	superseded by LDW-SS115, 3 ft away	970
EPA SI	DR191	198744	1271964	8/13/98	SD-DR191-0000		10	sample falls within 1998 Hurlen-Boyer Dredge area - exclude	974
EPA SI	DR192	198507	1272251	8/13/98	SD-DR192-0000		10	sample falls within 1998 Hurlen-Boyer Dredge area - exclude	975
EPA SI	DR198	197314	1273506	8/20/98	SD-DR198-0000		10	superseded by LDW-SS102, 3 ft away	981
EPA SI	DR202	197040	1273815	8/27/98	SD-DR202-0000		10	superseded by LDW-SS104, 2 ft away	985
EPA SI	DR228	196122	1275015	9/1/98	SD-DR228-0000		10	sample inside 1999 USACE dredge - exclude	1017
EPA SI	DR229	195739	1275490	8/27/98	SD-DR229-0000		10	sample inside 1999 USACE dredge - exclude	1018
EPA SI	DR230	194778	1275907	8/25/98	SD-DR230-0000		10	sample inside 1999 USACE dredge - exclude	1019
EPA SI	DR234	196363	1274835	8/19/98	SD-DR234-0000		10	sample inside 1999 USACE dredge - exclude	1023
EPA SI	DR235	195030	1275851	8/26/98	SD-DR235-0000		10	sample inside 1999 USACE dredge - exclude	1024
EPA SI	DR238	193348	1276577	8/27/98	SD-DR238-0000		10	superseded by LDW-SS125, 1 ft away	1027
EPA SI	DR242	192929	1277477	8/24/98	SD-DR242-0000-CC		10	superseded by RhônePoulenc2004 loc. SB-1 - exclude	1031
EPA SI	DR255	190300	1278369	9/15/98	SD-DR255-0000		10	Inside 1999 Norfolk Dredge area - exclude	1046
EPA SI	DR256	190118	1278608	9/15/98	SD-DR256-0000		10	Inside 1999 Norfolk Dredge area - exclude	1047
EPA SI	DR260	193122	1276042	9/2/98	SD-DR260-0000		10	Inside Duwamish YC dredge, 1999 - exclude	1051
EPA SI	DR261	192860	1276181	8/25/98	SD-DR261-0000		10	Inside Duwamish YC dredge, 1999 - exclude	1052
EPA SI	DR271	189995	1277573	9/15/98	SD-DR271-0000		10	superseded by LDW-SS148, 2 ft away	1064
EPA SI	DR282	194054	1276089	8/25/98	SD-DR282-0000		10	sample inside 1999 USACE dredge - exclude	1075
EPA SI	DR283	193104	1276196	8/25/98	SD-DR283-0000		10	Inside Duwamish YC 1999 dredge - exclude	1076

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
EPA SI	DR286	191854	1276508	8/26/98	SD-DR286-0000-CC		10	superseded by LDW-B10b, 3 ft away	1081
EPA SI	DR288	193668	1276259	8/25/98	SD-DR288-0000		10	sample inside 1999 USACE dredge - exclude	1083
Harbor Island RI	K-05	210286	1266258	9/27/91	K-05-1-D1		2	superseded by LDW-SS10, 1 ft away	714
Harbor Island RI	K-05	210286	1266258	9/27/91	K-05-1-D1	field duplicate	2	superseded by LDW-SS10, 1 ft away	13549
Harbor Island RI	K-05	210286	1266258	9/27/91	K-05-2-D1	field duplicate	2	superseded by LDW-SS10, 1 ft away	13553
Harbor Island RI	K-05	210286	1266258	9/27/91	K-05-3-D1	field duplicate	2	superseded by LDW-SS10, 1 ft away	13557
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-1		2	superseded by LDW-SS10, 1 ft away	13548
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-1-B		2	superseded by LDW-SS10, 1 ft away	713
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-1-D2		2	superseded by LDW-SS10, 1 ft away	715
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-1-D2	field duplicate	2	superseded by LDW-SS10, 1 ft away	13550
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-2		2	superseded by LDW-SS10, 1 ft away	13552
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-2-D2	field duplicate	2	superseded by LDW-SS10, 1 ft away	13554
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-3		2	superseded by LDW-SS10, 1 ft away	13556
Harbor Island RI	K-05	210286	1266258	10/14/91	K-05-3-D2	field duplicate	2	superseded by LDW-SS10, 1 ft away	13558
Harbor Island RI	K-07	211229	1266883	9/30/91	K-07		2	superseded by LDW-SS4,1 ft away	717
Harbor Island RI	K-08	211686	1267033	9/30/91	K-08		2	north of RM 0	718
Harbor Island RI	K-11	211372	1266032	9/30/91	K-11		2	superseded by LDW-SS1, less than 1 ft away	723
Harbor Island RI	K-12	211610	1265764	9/30/91	K-12		2	north of RM 0	724
Harbor Island RI	K-13	211863	1265485	9/30/91	K-13		2	north of RM 0	725
JorgensenAugust2004	SD-323-S	195348	1275946	8/17/04	SD-323-0000		10	superseded by LDW-SS10 - exclude	31033
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-1		10	Coordinates uncertain and do not meet project DQOs - exclude	4127
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-2		10	Coordinates uncertain and do not meet project DQOs - exclude	4128
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-3		10	Coordinates uncertain and do not meet project DQOs - exclude	4129
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-4		10	Coordinates uncertain and do not meet project DQOs - exclude	4130
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-5		10	Coordinates uncertain and do not meet project DQOs - exclude	4131
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-6		10	Coordinates uncertain and do not meet project DQOs - exclude	4132
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-7		10	Coordinates uncertain and do not meet project DQOs - exclude	4133

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-8		10	Coordinates uncertain and do not meet project DQOs - exclude	4134
KC WQA	Kellogg Island - Amphipods	207202	1266150	7/14/98	L13812-9		10	Coordinates uncertain and do not meet project DQOs - exclude	4135
KC WQA	West Marginal Way - Amphipods	207348	1266548	7/23/98	L13898-1		10	Coordinates uncertain and do not meet project DQOs - exclude	4137
KC WQA	West Marginal Way - Amphipods	207348	1266548	7/23/98	L13898-2		10	Coordinates uncertain and do not meet project DQOs - exclude	4138
KC WQA	West Marginal Way - Amphipods	207348	1266548	7/23/98	L13898-3		10	Coordinates uncertain and do not meet project DQOs - exclude	4139
LDWRI-SurfaceSedimentRound1	LDW-SS18	209531	1266844	2/1/05	LDW-SS18-010		10	Collected within 200 ft of Duwamish/Diagonal dredging - exclude because reflects post-remediation conditions in this area	29969
LDWRI-SurfaceSedimentRound1	LDW-SS20	209158	1266779	2/2/05	LDW-SS20-010		10	Collected within 200 ft of Duwamish/Diagonal dredging - exclude because reflects post-remediation conditions in this area	29970
LDWRI-SurfaceSedimentRound1	LDW-SS22	208754	1267170	1/17/05	LDW-SS22-010		10	Collected within 200 ft of Duwamish/Diagonal dredging - exclude because reflects post-remediation conditions in this area	29971
LDWRI-SurfaceSedimentRound2	LDW-SS21	209139	1266686	3/8/05	LDW-SS21-010		10	Collected within 200 ft of Duwamish/Diagonal dredging - exclude because reflects post-remediation conditions in this area	30171
LDWRI-SurfaceSedimentRound2	LDW-SS25	208202	1267285	3/10/05	LDW-SS25-010		10	Collected within 200 ft of Duwamish/Diagonal dredging - exclude because reflects post-remediation conditions in this area	30173
NOAA SiteChar	CH0005	194120	1276106	10/9/97	CH02-01		10	sample inside 1999 USACE dredge - exclude	29
NOAA SiteChar	CH0009	195697	1275667	10/15/97	CH03-01		10	sample inside 1999 USACE dredge - exclude	33
NOAA SiteChar	CH0010	195402	1275830	10/15/97	CH03-02		10	sample inside 1999 USACE dredge - exclude	34
NOAA SiteChar	CH0011	195146	1275866	10/15/97	CH03-03		10	sample inside 1999 USACE dredge - exclude	35
NOAA SiteChar	CH0012	194742	1275998	10/15/97	CH03-04		10	sample inside 1999 USACE dredge - exclude	36
NOAA SiteChar	CH0017	196259	1274916	11/13/97	CH04-04		10	sample inside 1999 USACE dredge - exclude	41
NOAA SiteChar	CH0023	201244	1269902	10/16/97	CH07-01		10	superseded by LDW-SS79, 2 ft away	47
NOAA SiteChar	EIT061	194079	1276332	9/29/97	EIT06-02		10	superseded by LDW-SS121, 4 ft away	85
NOAA SiteChar	EIT074	199309	1271869	11/3/97	EIT09-01		10	superseded by LDW-SS88, 7 ft away	98
NOAA SiteChar	EST135	192760	1276632	11/12/97	EST07-07		10	superseded by LDW-B8b, 3 ft away	159
NOAA SiteChar	EST144	193933	1276329	9/25/97	EST09-04		10	superseded by LDW-SS123, 1 ft away	168
NOAA SiteChar	EST152	195584	1275858	9/24/97	EST11-03		10	superseded by Jorgenson 2004 location SD-309-S - exclude	178
NOAA SiteChar	EST154	195474	1275881	9/24/97	EST11-04		10	superseded by Jorgenson 2004 location SD-334-S - exclude	180
NOAA SiteChar	EST180	198751	1272435	10/6/97	EST13-05		10	superseded by LDW-SS92, 2 ft away	204
NOAA SiteChar	EST202	205988	1267994	9/17/97	EST19-01		10	sample inside Lehigh NW 2004 dredge - exclude	226
NOAA SiteChar	EST219	207310	1267542	9/17/97	EST21-03		10	superseded by LDW-SS27, 5 ft away	243

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
NOAA SiteChar	WIT280	200290	1270188	10/3/97	WIT11-01		10	superseded by LDW-B5a, 10 ft away	296
NOAA SiteChar	WST313	192989	1276092	10/20/97	WST06-01		10	sample inside 1999 Duwamish YC dredge - exclude	335
NOAA SiteChar	WST316	193828	1276100	10/1/97	WST07-02		10	sample inside 1999 USACE dredge - exclude	339
NOAA SiteChar	WST317	193461	1276205	10/15/97	WST07-03		10	sample inside 1999 USACE dredge - exclude	340
NOAA SiteChar	WST318	195552	1275619	10/2/97	WST08-01		10	sample inside 1999 USACE dredge - exclude	342
NOAA SiteChar	WST319	195294	1275737	10/2/97	WST08-02		10	sample inside 1999 USACE dredge - exclude	343
NOAA SiteChar	WST320	195074	1275811	10/2/97	WST08-03		10	sample inside 1999 USACE dredge - exclude	344
NOAA SiteChar	WST321	194891	1275832	10/2/97	WST08-04		10	sample inside 1999 USACE dredge - exclude	345
NOAA SiteChar	WST323	195779	1275215	10/21/97	WST09-02		10	superseded by T117-SE-10-G - exclude	347
NOAA SiteChar	WST341	198722	1272031	10/21/97	WST13-03		10	inside Hurlen-Boyer 1998 dredge - exclude	365
NOAA SiteChar	WST342	199913	1270839	10/23/97	WST14-01		10	superseded by EPA SI location DR141 - exclude	366
NOAA SiteChar	WST344	199541	1271195	10/10/97	WST14-02		10	inside Hurlen-Boyer 1998 dredge - exclude	368
NOAA SiteChar	WST367	206409	1266994	9/19/97	WST20-02		10	superseded by EPA SI location DR048 - exclude	391
Norfolk-cleanup1	NFK001	190277	1278459	8/18/94	L4321-1		10	inside 1999 Norfolk dredge area - exclude	1355
Norfolk-cleanup1	NFK002	190237	1278506	8/18/94	L4321-2		10	superseded by Ecology - Norfolk locations 2,3 and 4 - exclude	1364
Norfolk-cleanup1	NFK004	190165	1278594	8/18/94	L4321-4		10	inside 1999 Norfolk dredge area - exclude	1373
Norfolk-cleanup1	NFK007	190249	1278415	8/22/94	L4321-7		10	inside 1999 Norfolk dredge area - exclude	1376
Norfolk-cleanup1	NFK008	190203	1278497	8/17/94	L4321-8		10	inside 1999 Norfolk dredge area - exclude	1377
Norfolk-cleanup1	NFK009	190154	1278564	8/17/94	L4321-9		10	inside 1999 Norfolk dredge area - exclude	1378
Norfolk-cleanup1	NFK009	190154	1278564	8/31/94	L4321-25		15	inside 1999 Norfolk dredge area - exclude	1368
Norfolk-cleanup1	NFK012	190158	1278480	8/18/94	L4321-13		10	inside 1999 Norfolk dredge area - exclude	1358
Norfolk-cleanup1	NFK013	190089	1278542	8/19/94	L4321-14		10	inside 1999 Norfolk dredge area - exclude	1359
Norfolk-cleanup1	NFK014	190015	1278609	8/19/94	L4321-16	field duplicate	10	inside 1999 Norfolk dredge area - exclude	14478
Norfolk-cleanup2	NFK201	190294	1278424	8/23/95	L6725-1		10	inside 1999 Norfolk dredge area - exclude	1379
Norfolk-cleanup2	NFK202	190219	1278524	8/23/95	L6725-2		10	inside 1999 Norfolk dredge area - exclude	1388
Norfolk-cleanup2	NFK203	190129	1278619	8/23/95	L6725-3		10	inside 1999 Norfolk dredge area - exclude	1397
Norfolk-cleanup2	NFK205	190234	1278457	8/28/95	L6725-5		10	inside 1999 Norfolk dredge area - exclude	1402
Norfolk-cleanup3	NFK201	190294	1278424	12/5/95	L7462-16		10	inside 1999 Norfolk dredge area - exclude	1419
Norfolk-cleanup3	NFK312	190314	1278384	12/5/95	L7462-12		10	inside 1999 Norfolk dredge area - exclude	1415
Norfolk-cleanup3	NFK314	190257	1278407	12/6/95	L7462-14		10	inside 1999 Norfolk dredge area - exclude	1417
Norfolk-cleanup3	NFK315	190186	1278524	12/5/95	L7462-15		10	inside 1999 Norfolk dredge area - exclude	1418
Norfolk-monit1	NFK501	190150	1278591	4/23/99	L15421-1		10	superseded by April-01 sample from this location	1466
Norfolk-monit1	NFK504	190083	1278626	4/23/99	L15421-4		10	superseded by LDW-SS344 - 1 ft away	1463

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
Norfolk-monit2a	NFK501	190160	1278569	10/8/99	L16628-1		2	only 0-2 cm depth, 10 cm depth preferred	1474
Norfolk-monit2a	NFK502	190164	1278512	10/8/99	L16628-3		2	only 0-2 cm depth, 10 cm depth preferred	1472
Norfolk-monit2a	NFK502	190164	1278512	10/8/99	L16628-4		10	superseded by LDW-SS342 - 8 ft away	1471
Norfolk-monit2a	NFK503	190181	1278543	10/8/99	L16628-5		2	only 0-2 cm depth, 10 cm depth preferred	1470
Norfolk-monit2a	NFK503	190181	1278543	10/8/99	L16628-6		10	superseded by April-02 sample from this location	1469
Norfolk-monit2a	NFK504	190086	1278619	10/8/99	L16628-7		2	only 0-2 cm depth, 10 cm depth preferred	1468
Norfolk-monit2b	NFK501	190166	1278593	2/8/00	L17315-1		2	superseded by LDW-SS343 - 3 ft away	1475
Norfolk-monit2b	NFK503	190197	1278548	2/8/00	L17315-3		2	superseded by LDW-SS341 - 2 ft away	1477
Norfolk-monit2b	NFK506	190257	1278543	2/10/00	L17311-1		10	superseded by Ecology - Norfolk locations 5 and 7 - exclude	12074
Norfolk-monit3	NFK501	190142	1278573	4/6/00	L17647-1		2	only 0-2 cm depth, 10 cm depth preferred	1485
Norfolk-monit3	NFK502	190165	1278511	4/6/00	L17647-3		2	only 0-2 cm depth, 10 cm depth preferred	1483
Norfolk-monit3	NFK502	190165	1278511	4/6/00	L17647-4		10	superseded by LDW-SS342 - 9 ft away	1482
Norfolk-monit3	NFK503	190179	1278543	4/6/00	L17647-5		2	only 0-2 cm depth, 10 cm depth preferred	1481
Norfolk-monit3	NFK503	190179	1278543	4/6/00	L17647-6		10	superseded by April-02 sample from this location	1480
Norfolk-monit3	NFK504	190076	1278628	4/6/00	L17647-7		2	only 0-2 cm depth, 10 cm depth preferred	1479
Norfolk-monit3	NFK504	190076	1278628	4/6/00	L17647-8		10	superseded by LDW-SS344 - 7 ft away	1478
Norfolk-monit4	NFK501	190153	1278583	4/24/01	L20703-1		2	only 0-2 cm depth, 10 cm depth preferred	8458
Norfolk-monit4	NFK502	190156	1278512	4/24/01	L20703-3		2	only 0-2 cm depth, 10 cm depth preferred	8460
Norfolk-monit4	NFK502	190156	1278512	4/24/01	L20703-4		10	superseded by LDW-SS342 - 4 ft away	8461
Norfolk-monit4	NFK503	190177	1278549	4/24/01	L20703-5		2	only 0-2 cm depth, 10 cm depth preferred	8462
Norfolk-monit4	NFK503	190177	1278549	4/24/01	L20703-6		10	superseded by April-02 sample from this location	8463
Norfolk-monit4	NFK504	190075	1278625	4/24/01	L20703-7		2	only 0-2 cm depth, 10 cm depth preferred	8464
Norfolk-monit4	NFK504	190075	1278625	4/24/01	L20703-8		10	superseded by LDW-SS344 - 7 ft away	8465
Norfolk-monit5	NFK501	190165	1278589	4/30/02	L23995-1		2	only 0-2 cm depth, 10 cm depth preferred	18461
Norfolk-monit5	NFK501	190165	1278589	4/30/02	L23995-2		10	superseded by LDW-SS343 - 4 ft away	18462
Norfolk-monit5	NFK502	190156	1278513	4/30/02	L23995-3		2	only 0-2 cm depth, 10 cm depth preferred	18463
Norfolk-monit5	NFK502	190156	1278513	4/30/02	L23995-4		10	superseded by LDW-SS342 - 3 ft away	18464
Norfolk-monit5	NFK503	190177	1278545	4/30/02	L23995-5		2	only 0-2 cm depth, 10 cm depth preferred	18465
Norfolk-monit5	NFK504	190074	1278622	4/30/02	L23995-7		2	only 0-2 cm depth, 10 cm depth preferred	18467
Norfolk-monit5	NFK504	190074	1278622	4/30/02	L23995-8		10	superseded by LDW-SS344 - 9 ft away	18468
Norfolk-monit6	NFK501	190167	1278586	4/23/03	L28052-1		2	only 0-2 cm depth, 10 cm depth preferred	18744
Norfolk-monit6	NFK501	190167	1278586	4/23/03	L28052-2		10	superseded by LDW-SS343 - 4 ft away	18745
Norfolk-monit6	NFK502	190156	1278511	4/23/03	L28052-3		2	only 0-2 cm depth, 10 cm depth preferred	18746
Norfolk-monit6	NFK502	190156	1278511	4/23/03	L28052-4		10	superseded by LDW-SS342 - 5 ft away	18747

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
Norfolk-monit6	NFK503	190197	1278543	4/23/03	L28052-5		2	only 0-2 cm depth, 10 cm depth preferred	18748
Norfolk-monit6	NFK503	190197	1278543	4/23/03	L28052-6		10	superseded by LDW-SS341 - 4 ft away	18749
Norfolk-monit6	NFK504	190076	1278622	4/23/03	L28052-7		2	only 0-2 cm depth, 10 cm depth preferred	18750
Norfolk-monit6	NFK504	190076	1278622	4/23/03	L28052-8		10	superseded by LDW-SS344 - 7 ft away	18751
Norfolk-monit7	NFK501	190169	1278589	4/5/04	L31635-1		2	only 0-2 cm depth, 10 cm depth preferred	18752
Norfolk-monit7	NFK501	190169	1278589	4/5/04	L31635-2		10	superseded by LDW-SS343 - 1 ft away	18753
Norfolk-monit7	NFK502	190156	1278515	4/5/04	L31635-3		2	only 0-2 cm depth, 10 cm depth preferred	18754
Norfolk-monit7	NFK502	190156	1278515	4/5/04	L31635-4		10	superseded by LDW-SS342 - 2 ft away	18755
Norfolk-monit7	NFK503	190194	1278543	4/5/04	L31635-5		2	only 0-2 cm depth, 10 cm depth preferred	18756
Norfolk-monit7	NFK503	190194	1278543	4/5/04	L31635-6		10	superseded by LDW-SS341 - 2 ft away	18757
Norfolk-monit7	NFK504	190079	1278627	4/5/04	L31635-7		2	only 0-2 cm depth, 10 cm depth preferred	18758
Norfolk-monit7	NFK504	190079	1278627	4/5/04	L31635-8		10	superseded by LDW-SS344 - 3 ft away	18759
Plant 2 RFI-1	SD-SWY07	195628	1275855	6/13/95	SD-SWY07-0000		9	superseded by Plant2-Transformer Phase1 loc. SD-SWY17. Exclude	587
Plant 2 RFI-2b	SD-DUW83	195679	1275624	4/3/96	SD2B-DUW83-0000		9	sample inside 1999 USACE dredge - exclude	668
Plant 2 RFI-2b	SD-DUW90	195533	1275877	4/4/96	SD2B-DUW90-0000		9	superseded by Jorgenson August 2004 loc SD-343-S - exclude	675
Plant 2 RFI-2b	SD-DUW92	195387	1275932	4/2/96	SD2B-DUW92-0000		9	superseded by Jorgenson August 2004 loc SD-320-S - exclude	677
PSAMP/NOAA98	203	208455	1266636	6/22/98	203		2	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1997
PSAMP/NOAA98	204	208272	1267209	6/22/98	204		2	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1998
PSAMP/NOAA98	205	202467	1269112	6/23/98	205		2	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1999
Rhône-Poulenc RFI-1	A11-01	192748	1276772	3/3/94	RPL-A11-01-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1462
Rhône-Poulenc RFI-1	A11-02	192817	1276678	3/3/94	RPL-A11-02-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1460
Rhône-Poulenc RFI-1	A11-03	192906	1276719	3/3/94	RPL-A11-03-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1458
Rhône-Poulenc RFI-1	A11-03	192906	1276719	3/3/94	RPL-A11-08-01	duplicate	15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1449
Rhône-Poulenc RFI-1	A11-04	193038	1276583	3/3/94	RPL-A11-04-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1447
Rhône-Poulenc RFI-1	A11-05	193145	1276637	3/3/94	RPL-A11-05-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1455
Rhône-Poulenc RFI-1	A11-06	193383	1276536	3/3/94	RPL-A11-06-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1453
Rhône-Poulenc RFI-1	A11-07	193521	1276514	3/3/94	RPL-A11-07-01		15	not acceptable for all phase 2 uses - insufficient QA/QC available - exclude	1451

Table E.2-3, cont. LDW surface sediment samples collected since 1990 excluded from the RI baseline dataset

Event Name	Location Name	Northing[a]	Easting[a]	Sampling Date	Sample ID	Field QC	Lower Depth (cm)	Rationale for Exclusion	Sample No.
Rhône-Poulenc RFI-2	A11-05	193145	1276637	8/18/94	RPL-A11-05-02		2	superseded by LDW-SS126, 2 ft away	1454
Rhône-Poulenc RFI-2	A11-05	193145	1276637	8/18/94	RPL-A11-10-02	field duplicate	2	superseded by LDW-SS126, 2 ft away	1448
Rhône-Poulenc RFI-3	06-intsed-2	193293	1276681	7/1/96	06-intsed-2		10	superseded by RhônePoulenc2004 loc. SH-04 - exclude	18402
Rhône-Poulenc RFI-3	07-intsed-1	193466	1276645	7/1/96	07-intsed-1		10	superseded by RhônePoulenc2004 loc. SH-02 - exclude	18403

Note: Sampling location coordinates are Washington State Plane North, US survey ft, NAD83.

DQO – data quality objective
Ecology – Washington State Department of Ecology
EPA – US Environmental Protection Agency
ID – identification
KC – King County
LDW – Lower Duwamish Waterway
NOAA – National Oceanic and Atmospheric Administration
QA – quality assurance
QC – quality control
RI – remedial investigation
RFI – RCRA facility investigation
SI – site investigation
RCRA – Resource Conservation and Recovery Act
USACE – US Army Corps of Engineers
WQA – water quality assessment

E.3 Data Management Rules

E.3.1 AVERAGING DUPLICATE OR REPLICATE SAMPLES

Chemical concentrations obtained from the analysis of laboratory duplicates or replicates (two or more analyses on the same sample) were averaged for a closer representation of the "true" concentration as compared to the results of a single analysis. Averaging rules were dependent on whether the individual results were detected concentrations or reporting limits (RLs) for undetected analytes. If all concentrations were detects for a given parameter, the values were simply averaged arithmetically. If all concentrations were undetected for a given parameter, the minimum RL was reported. If the concentrations were a mixture of detected concentrations and RLs, any two or more detected concentrations were averaged arithmetically and RLs were ignored. If there was a single detected concentration and one or more RLs, the detected concentration was reported. The latter two rules were applied regardless of whether the RLs were higher or lower than the detected concentration.

Identical averaging rules were applied in situations where multiple sediment samples were collected from the same location at the same time, such as field duplicate samples, or when multiple sediment samples were collected at a single location (i.e., a location with specific x and y coordinates) within a 6-month period. In these instances, a single "average" result for each chemical was generated for that sediment sampling location.

E.3.2 SELECTION OF BEST RESULTS

In some instances, the laboratory generates more than one result for a chemical for a given sample. Multiple results can occur for several reasons, including: 1) the original result did not meet the laboratory's internal quality control (QC) guidelines, and a reanalysis was performed; 2) the original result did not meet other project data quality objectives, such as a sufficiently low RL, and a reanalysis was performed; or 3) two different analytical methods were used for that chemical. In each case, a single best result was selected for use. The procedures for selecting the best result differed depending on whether a single or multiple analytical methods were used for that chemical.

For the same analytical method, if the results were:

- Detected and not qualified, then the result from the lowest dilution was selected, unless multiple results from the same dilution were available, in which case, the result with the highest concentration was selected.
- A combination of estimated and unqualified detected results, then the unqualified result was selected. This situation most commonly occurred when the original result was outside of the calibration range, thus requiring a dilution. The diluted result within the calibration range is preferentially selected.

- All estimated, then the "best result" was selected using best professional judgment in consideration of the rationale for qualification. For example, a result qualified based on laboratory replicate results outside of QC objectives for precision would be preferred to a qualified result that was outside the calibration range.
- A combination of detected and undetected results, then the detected result was selected. If there was more than one detected result, the applicable rules for multiple results (as discussed above) were followed.
- All undetected results, then the lowest RL was selected.

If the multiple results were from different analytical methods, then the result from the preferred method specified in the quality assurance project plan (QAPP) or based on the consensus of the professional opinions of project chemists was selected.

The following rules were applied to multiple results from the analyses of a single sample by different analytical methods:

- For detected concentrations analyzed by the semivolatile organic compound (SVOC) full-scan and selected ion monitoring (SIM) methods, the highest detected concentration was selected. If the result by one method was detected and the result by the other method was not detected, then the detected result was selected for reporting, regardless of the method. If results were reported as non-detected by both methods, the undetected result with the lowest RL was selected. The SIM method is more analytically sensitive than the full-scan SVOC method, and the undetected results were generally reported at a lower RL by the SIM method than by the full-scan method. Therefore, the SIM method was selected for non-detected results unless an analytical dilution or analytical interferences elevated the SIM RL above the SVOC full-scan RL.
- Hexachlorobenzene and hexachlorocyclopentadiene were analyzed by US Environmental Protection Agency (EPA) Methods 8081A, 8270, and 8270-SIM. The result from the method with the greatest sensitivity (i.e., lowest RL) was selected if all results were undetected. EPA Method 8081A results were generally selected, when available, because the standard laboratory RLs from this analysis are significantly lower than those from EPA Methods 8270 and 8270-SIM. When chemicals were detected, the detected result with the highest concentration was selected unless the detected concentration was qualified as estimated or tentatively identified, in which case the rule designating treatment of qualified and unqualified data would apply.
- A subset of the fish and crab tissue samples were analyzed for bis(2-ethylhexyl) phthalate using EPA Method 8270D and for pentachlorophenol using EPA Method 8041, with a silica gel cleanup, to achieve RLs lower than those achieved in the original analyses using EPA Method 8270-SIM. The re-analysis results for

these two analytes were selected for reporting because of the greater sensitivity of the re-analysis methods for these analytes.

E.3.3 SIGNIFICANT FIGURES AND ROUNDING

The analytical laboratories reported results with various numbers of significant figures depending on the instrument, parameter, and the concentration relative to the RL. The reported (or assessed) precision of each observation was explicitly stored in the project database as a record of the number of significant figures assigned by the laboratory. The tracking of significant figures became important when calculating averages and performing other data summaries.

When a calculation involved addition, such as totaling polychlorinated biphenyls (PCBs) or polycyclic aromatic hydrocarbons (PAHs), the calculation was only as precise as the least precise number that went into the calculation. For example (assuming two significant figures):

210 + 19 = 229, but this would be reported as 230 because 19 is only reported to 2 significant digits, and the enhanced precision of the trailing zero in the number 210 is not significant.

When a calculation involved multiplication or division, such as carbon normalization, the original figures for each value were carried through the calculation (i.e., individual values were not adjusted to a standard number of significant figures; instead, the appropriate adjustment was made to the resultant value at the end of the calculation). The result was rounded at the end of the calculation to reflect the value used in the calculation with the fewest significant figures. For example:

59.9 x 1.2 = 71.88 would be reported as 72 because there are two significant figures in the number 1.2.

When rounding, if the number following the last significant figure was less than 5, the digit was left unchanged. If the number following the last significant figure was equal to or greater than 5, the digit was increased by 1.

E.3.4 CALCULATING TOTALS

Total PCBs, total DDTs (dichlorodiphenyltrichloroethane), total PAHs, and total chlordane were calculated by summing the detected values for the individual components (i.e., Aroclor mixtures or individual congeners for total PCBs, DDT isomers for total DDTs, specific individual PAH compounds for total PAHs, and specific individual chlordane compounds for total chlordane). For individual samples in which none of the individual components was detected, the total value was given a value equal to the highest RL of an individual component, and assigned a U-qualifier, indicating no detected concentrations.

E.3.5 Calculation of PCB Congener Toxic Equivalents

PCB congener toxic equivalents (TEQs) were calculated using the World Health Organization (WHO) consensus toxic equivalency factor (TEF) values for fish, birds, and mammals (Van den Berg et al. 1998; Van den Berg et al. 2006) as presented in Table E.3-1. The TEQ was calculated as the sum of each PCB congener concentration multiplied by the corresponding TEF value. When the PCB congener concentration was reported as non-detected, then the TEF was multiplied by half the RL.

Table E.3-1. PCB congener TEF values

PCB Congener Number	TEF Value for Fish (unitless)[a]	TEF Value for Birds (unitless)[a]	TEF Value for Mammals (unitless)[b]
77	0.0001	0.05	0.0001
81	0.0005	0.1	0.0003
105	<0.000005	0.0001	0.00003
114	<0.000005	0.0001	0.00003
118	<0.000005	0.00001	0.00003
123	<0.000005	0.00001	0.00003
126	0.005	0.1	0.1
156	<0.000005	0.0001	0.00003
157	<0.000005	0.0001	0.00003
167	<0.000005	0.00001	0.00003
169	0.00005	0.001	0.03
189	<0.000005	0.00001	0.00003

[a] From Van den Berg et al. (1998).
[b] From Van den Berg et al. (2006).
PCB – polychlorinated biphenyl
TEF – toxic equivalency factor

E.3.6 Calculation of Dioxin/Furan Congener TEQs

Dioxin/furan congener TEQs were calculated using the WHO consensus TEF values for fish, birds, and mammals (Van den Berg et al. 1998; Van den Berg et al. 2006) as presented in Table E.3-2. The TEQ was calculated as the sum of each dioxin/furan congener concentration multiplied by the corresponding TEF value. When the dioxin/furan congener concentration was reported as undetected, then the TEF was multiplied by half the RL.

Table E.3-2. Dioxin/furan congener TEF values

Dioxin/Furan Congener	TEF Value for Fish (unitless)[a]	TEF Value for Birds (unitless)[a]	TEF Value for Mammals (unitless)[b]
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	0.01	0.01
1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin	0.001	<0.001	0.01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	0.01	0.01
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	0.1	0.1
1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin	0.5	0.05	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	0.1	0.1
1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin	0.01	0.01	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	0.1	0.1
1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin	0.01	0.1	0.1
1,2,3,7,8-Pentachlorodibenzofuran	0.05	0.1	0.03
1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin	1	1	1
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	0.1	0.1
2,3,4,7,8-Pentachlorodibenzofuran	0.5	1	0.3
2,3,7,8-Tetrachlorodibenzofuran	0.05	1	0.1
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin	1	1	1
Octachlorodibenzofuran	<0.0001	0.0001	0.0003
Octachlorodibenzo-*p*-dioxin	<0.0001	0.0001	0.0003

[a] From Van den Berg et al. (1998).
[b] From Van den Berg et al. (2006).
TEF – toxic equivalency factor

E.3.7 Calculation of Carcinogenic Polycyclic Aromatic Hydrocarbons

Carcinogenic polycyclic aromatic hydrocarbons (cPAH) values were calculated using potency equivalency factor (PEF) values (California EPA 1994) based on the individual PAH component's relative toxicity to benzo(a)pyrene. PEF values are presented in Table E.3-3. The cPAH was calculated as the sum of each individual PAH concentration multiplied by the corresponding PEF value. When the individual PAH component concentration was reported as non-detected, then the PEF was multiplied by half the RL.

Table E.3-3. cPAH PEF values

cPAH	PEF VALUE (unitless)[a]
Benzo(a)pyrene	1
Benzo(a)anthracene	0.1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.1
Chrysene	0.01
Dibenz(a,h)anthracene	0.4
Indeno(1,2,3-cd)pyrene	0.1

[a] PEFs for cPAHs were defined by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (California EPA 1994). PEFs are available for PAHs that were not analyzed in LDW sediments. The PEFs for these compounds are not shown here and were not used in the RI. The PEF was determined by California EPA by dividing the inhalation unit risk factor for this compound by the inhalation unit risk factor for benzo[a]pyrene.

cPAH – carcinogenic polycyclic aromatic hydrocarbon

PEF – potency equivalency factor

E.3.8 REFERENCES

California EPA. 1994. Health effects of benzo(a)pyrene. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Berkeley, CA.

Van den Berg M, Birnbaum LS, Denison M, De Vito M, Farland W, Feeley M, Fiedler H, Hakansson H, Hanberg A, Haws L, Rose M, Safe S, Schrenk D, Tohyama C, Tritscher A, Tuomisto J, Tysklind M, Walker N, Peterson RE. 2006. The 2005 World Health Organization reevaluation of human and mammalian toxic equivalency factors for dioxins and dioxin-like compounds. Tox Sci 93(2):223-241.

E.4 Total PCB Data for Fish and Crab Tissue Composite Samples

Tables E.4-1 and E.4-2 present total PCB concentrations (Aroclor sum), lipid percents, and lipid-normalized PCB concentrations (Aroclor sum) for fish and crab tissue samples collected in 2004 and 2005, respectively. Tables E.4-3 through E.4-5 present total PCB concentrations (PCB congener sum), lipid percents, and lipid-normalized PCB concentrations (PCB congener sum) for each composite fish and crab tissue sample collected in 2004, 2005, and 2007, respectively. The data are shown in Figures E.4-1 through E.4-12.

Table E.4-1. Concentrations of PCBs (Aroclor sum) and lipids in LDW fish and crab tissue samples collected in 2004

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
English sole – whole body	T1	LDW-T1-M-ES-WB-comp-1	2,700	4.3	63
		LDW-T1-M-ES-WB-comp-2	3,000	5.0	60
		LDW-T1-M-ES-WB-comp-3	4,200	6.8	62
		LDW-T1-M-ES-WB-comp-4	4,200	5.7	74
		LDW-T1-M-ES-WB-comp-5	3,100	5.3	58
		LDW-T1-M-ES-WB-comp-6	4,700	6.3	75
	T2	LDW-T2-M-ES-WB-comp-1	4,200	8.7	48
		LDW-T2-M-ES-WB-comp-2	3,900	6.6	59
		LDW-T2-M-ES-WB-comp-3	4,200 J	7.6	55 J
		LDW-T2-M-ES-WB-comp-4	3,600	6.2	58
		LDW-T2-M-ES-WB-comp-5	3,900	7.6	51
		LDW-T2-M-ES-WB-comp-6	3,300	5.7	58
	T3	LDW-T3-M-ES-WB-comp-1	3,500	6.6	53
		LDW-T3-M-ES-WB-comp-2	1,870	4.7	40
		LDW-T3-M-ES-WB-comp-3	4,300	5.5	78
		LDW-T3-M-ES-WB-comp-4	1,720	3.5	49
		LDW-T3-M-ES-WB-comp-5	1,320	2.6	51
		LDW-T3-M-ES-WB-comp-6	2,700	6.2	44
	T4	LDW-T4-M-ES-WB-comp-1	1,800	5.9	31
		LDW-T4-M-ES-WB-comp-2	1,660	6.2	27
		LDW-T4-M-ES-WB-comp-3	1,640	4.8	34
Starry flounder – whole body	T4	LDW-T4-M-SF-WB-comp-1	660	2.1	31
		LDW-T4-M-SF-WB-comp-2	450	2.1	21
		LDW-T4-M-SF-WB-comp-3	600	2.5	24

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
English sole – fillet	T1	LDW-T1-M-ES-FL-comp-1	1,600	3.1	52
		LDW-T1-M-ES-FL-comp-2	1,330	2.6	51
	T2	LDW-T2-M-ES-FL-comp-1	2,010	3.4	59
		LDW-T2-M-ES-FL-comp-2	1,840	4.3	43
	T3	LDW-T3-M-ES-FL-comp-1	850	1.6	53
		LDW-T3-M-ES-FL-comp-2	1,640	3.6	46
	T4	LDW-T4-M-ES-FL-comp-1	710	1.7	42
Starry flounder – fillet	T4	LDW-T4-M-SF-FL-comp-1	450	2.6	17
Pacific staghorn sculpin – whole body	T1	LDW-T1-A-PS-WB-comp-1	580	2.1	28
		LDW-T1-B-PS-WB-comp-1	620 J	2.3	27 J
		LDW-T1-C-PS-WB-comp-1	750 J	1.8	42 J
		LDW-T1-D-PS-WB-comp-1	750	2.4	31
		LDW-T1-E-PS-WB-comp-1	790	2.4	33
		LDW-T1-F-PS-WB-comp-1	860	2.4	36
	T2	LDW-T2-A-PS-WB-comp-1	620	2.2	28
		LDW-T2-B-PS-WB-comp-1	710	2.4	30
		LDW-T2-C-PS-WB-comp-1	660 J	2.7	24 J
		LDW-T2-D-PS-WB-comp-1	660	2.3	29
		LDW-T2-E-PS-WB-comp-1	1,260	2.3	55
		LDW-T2-F-PS-WB-comp-1	720	1.8	40
	T3	LDW-T3-A-PS-WB-comp-1	830	2.1	40
		LDW-T3-B-PS-WB-comp-1	1,220	1.9	64
		LDW-T3-C-PS-WB-comp-1	810	1.8	45
		LDW-T3-D-PS-WB-comp-1	2,800	1.8	160
		LDW-T3-E-PS-WB-comp-1	1,180	2.0	59
		LDW-T3-F-PS-WB-comp-1	2,300	1.9	120
	T4	LDW-T4-A-PS-WB-comp-1	660	2.4	28
		LDW-T4-B-PS-WB-comp-1	780	2.2	35
		LDW-T4-C-PS-WB-comp-1	510	1.3	39
		LDW-T4-D-PS-WB-comp-1	1,330	2.5	53
		LDW-T4-D-PS-WB-comp-2	710	2.2	32
		LDW-T4-E-PS-WB-comp-1	670	1.8	37

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
Shiner surfperch – whole body	T1	LDW-T1-A-SS-WB-comp-1	970	5.0	19
		LDW-T1-B-SS-WB-comp-1	1,120 J	2.7	41 J
		LDW-T1-C-SS-WB-comp-1	1,670	4.1	41
		LDW-T1-D-SS-WB-comp-1	1,830	3.3	55
		LDW-T1-E-SS-WB-comp-1	1,270	2.3	55
		LDW-T1-F-SS-WB-comp-1	1,460	2.8	52
	T2	LDW-T2-A-SS-WB-comp-1	1,590	4.4	36
		LDW-T2-B-SS-WB-comp-1	1,570	2.5	63
		LDW-T2-C-SS-WB-comp-1	1,260	2.6	48
		LDW-T2-D-SS-WB-comp-1	1,450	3.8	38
		LDW-T2-E-SS-WB-comp-1	18,400 J	5.6	330 J
		LDW-T2-F-SS-WB-comp-1	1,620	4.9	33
	T3	LDW-T3-A-SS-WB-comp-1	1,280	3.7	35
		LDW-T3-B-SS-WB-comp-1	2,600	5.6	46
		LDW-T3-C-SS-WB-comp-1	1,410	3.4	41
		LDW-T3-D-SS-WB-comp-1	4,000	3.8	110
		LDW-T3-E-SS-WB-comp-1	8,800	3.1	280
		LDW-T3-F-SS-WB-comp-1	4,900	4.6	110
	T4	LDW-T4-A-SS-WB-comp-1	640	3.0	21
		LDW-T4-B-SS-WB-comp-1	960	3.3	29
		LDW-T4-B-SS-WB-comp-2	880	5.6	16
		LDW-T4-C-SS-WB-comp-1	920	5.3	17
		LDW-T4-C-SS-WB-comp-2	660	3.2	21
		LDW-T4-D-SS-WB-comp-1	710	4.3	17
Pile perch – fillet	All areas	LDW-M-M-PP-FL-comp-1	300	1.1	27
Striped perch – fillet	T3 and T4	LDW-M-M-SP-FL-comp-1	630	1.4	45
Dungeness crab – edible meat	T1	LDW-T1-M-DC-EM-comp-1	207 J	0.34	61 J
		LDW-T1-M-DC-EM-comp-2	206 J	0.39	53 J
		LDW-T1-M-DC-EM-comp-3	290	0.28	100
	T3	LDW-T3-M-DC-EM-comp-1	226	0.23	98
		LDW-T3-M-DC-EM-comp-2	300	0.40	75
		LDW-T3-M-DC-EM-comp-3	212	0.47	45
	T4	LDW-T4-M-DC-EM-comp-1	240 J	0.72	33 J
Dungeness crab – hepatopancreas	T1	LDW-T1-M-DC-HP-comp-1	4,000	4.6	87
	T3	LDW-T3-M-DC-HP-comp-1	4,500	6.3	71
	T4	LDW-T4-M-DC-HP-comp-1	5,500	7.9	70

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
Dungeness crab – whole body (calculated)[b]	T1	LDW-T1-M-DC-WB-comp-1 Calculated	1,400 JM	1.7 M	82 JM
		LDW-T1-M-DC-WB-comp-2 Calculated	1,400 JM	1.7 M	82 JM
		LDW-T1-M-DC-WB-comp-3 Calculated	1,400 M	1.6 M	88 M
	T3	LDW-T3-M-DC-WB-comp-1 Calculated	1,600 M	2.1 M	76 M
		LDW-T3-M-DC-WB-comp-2 Calculated	1,600 M	2.2 M	73 M
		LDW-T3-M-DC-WB-comp-3 Calculated	1,500 M	2.3 M	65 M
	T4	LDW-T4-M-DC-WB-comp-1 Calculated	1,900 JM	2.9 M	66 JM
Slender crab – edible meat	T1	LDW-T1-M-SC-EM-comp-1	390 J	0.74	53 J
		LDW-T1-M-SC-EM-comp-2	220	0.54	41
		LDW-T1-M-SC-EM-comp-3	210 J	0.43	49 J
	T2	LDW-T2-M-SC-EM-comp-1	180	0.23	78
		LDW-T2-M-SC-EM-comp-2	210 J	0.41	51 J
		LDW-T2-M-SC-EM-comp-3	260 J	0.43	60 J
		LDW-T2-M-SC-EM-comp-4	108	0.47	23
		LDW-T2-M-SC-EM-comp-5	230 J	0.34	68 J
		LDW-T2-M-SC-EM-comp-6	180 J	0.26	69 J
	T3	LDW-T3-M-SC-EM-comp-1	146	0.52	28
		LDW-T3-M-SC-EM-comp-2	168	0.51	33
		LDW-T3-M-SC-EM-comp-3	220	0.45	49
Slender crab – hepatopancreas	T1	LDW-T1-M-SC-HP-comp-1	1,490 J	1.9	78 J
	T2	LDW-T2-M-SC-HP-comp-1	1,950 J	2.7	72 J
		LDW-T2-M-SC-HP-comp-2	2,190 J	3.6	61 J
	T3	LDW-T3-M-SC-HP-comp-1	1,640	2.2	75
Slender crab – whole body (calculated)[b]	T1	LDW-T1-M-SC-WB-comp-1 Calculated	731 JM	1.1 M	66 JM
		LDW-T1-M-SC-WB-comp-2 Calculated	614 JM	0.96 M	64 JM
		LDW-T1-M-SC-WB-comp-3 Calculated	607 JM	0.89 M	68 JM
	T2	LDW-T2-M-SC-WB-comp-1 Calculated	729 JM	1.0 M	73 JM
		LDW-T2-M-SC-WB-comp-2 Calculated	749 JM	1.1 M	68 JM
		LDW-T2-M-SC-WB-comp-3 Calculated	784 JM	1.1 M	71 JM
		LDW-T2-M-SC-WB-comp-4 Calculated	753 JM	1.4 M	54 JM
		LDW-T2-M-SC-WB-comp-5 Calculated	838 JM	1.4 M	60 JM
		LDW-T2-M-SC-WB-comp-6 Calculated	803 JM	1.3 M	62 JM
	T3	LDW-T3-M-SC-WB-comp-1 Calculated	609 M	1.0 M	61 M
		LDW-T3-M-SC-WB-comp-2 Calculated	624 M	1.0 M	62 M
		LDW-T3-M-SC-WB-comp-3 Calculated	660 M	0.99 M	67 M

[a] Lipid-normalized concentrations (in units of mg PCBs/kg lipid) represent the wet-weight total PCB concentration (in units of mg/kg ww) divided by the decimal fraction corresponding to the percent lipid (e.g., 2.0% lipid = 0.02).

[b] Data from composite hepatopancreas samples were mathematically combined with data from composite samples of edible meat to form composite samples of whole body crab (i.e., edible meat plus hepatopancreas). Concentrations in whole-body crab were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weights of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

J – estimated concentration

JM – calculated concentration from an estimated concentration

LDW – Lower Duwamish Waterway

M – calculated concentration

PCB – polychlorinated biphenyl

ww – wet weight

Table E.4-2. Concentrations of total PCBs (Aroclor sum) and lipids in LDW fish and crab tissue samples collected in 2005

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
English sole – fillet (skin on)	T1	LDW-05-T1-M-ES-FL-Comp1	1,150	2.95	39
		LDW-05-T1-M-ES-FL-Comp2	1,450	5.09	28
		LDW-05-T1-M-ES-FL-Comp3	920	3.03	30
	T2	LDW-05-T2-M-ES-FL-Comp1	890	3.91	23
		LDW-05-T2-M-ES-FL-Comp2	1,400	4.62	30
		LDW-05-T2-M-ES-FL-Comp3	850	3.42	25
	T3	LDW-05-T3-M-ES-FL-Comp1	860	4.12	21
		LDW-05-T3-M-ES-FL-Comp2	450	2.04	22
		LDW-05-T3-M-ES-FL-Comp3	720	3.26	22
	T4	LDW-05-T4-M-ES-FL-Comp1	530	2.82	19
English sole – remainder	T1	LDW-05-T1-M-ES-RM-Comp1	2,100	7.81	27
		LDW-05-T1-M-ES-RM-Comp2	1,900	6.93	27
		LDW-05-T1-M-ES-RM-Comp3	1,540	5.51	28
	T2	LDW-05-T2-M-ES-RM-Comp1	2,100	7.03	30
		LDW-05-T2-M-ES-RM-Comp2	1,900	5.50	35
		LDW-05-T2-M-ES-RM-Comp3	2,000	6.84	29
	T3	LDW-05-T3-M-ES-RM-Comp1	2,700	10.4	26
		LDW-05-T3-M-ES-RM-Comp2	730	3.92	19
		LDW-05-T3-M-ES-RM-Comp3	1,140	6.67	17
	T4	LDW-05-T4-M-ES-RM-Comp1	1,130	8.24	14
English sole – whole body	T1	LDW-05-T1-M-ES-WB-Comp1	1,120	4.01	28
		LDW-05-T1-M-ES-WB-Comp2	2,200	4.42	50
		LDW-05-T1-M-ES-WB-Comp3	1,630	3.13	52
	T2	LDW-05-T2-M-ES-WB-Comp1	2,200	4.89	45
		LDW-05-T2-M-ES-WB-Comp2	2,200	6.83	32
		LDW-05-T2-M-ES-WB-Comp3	2,400	6.23	39
	T3	LDW-05-T3-M-ES-WB-Comp1	2,200	6.15	36
		LDW-05-T3-M-ES-WB-Comp2	880	4.77	18
		LDW-05-T3-M-ES-WB-Comp3	1,630	4.43	37
	T4	LDW-05-T4-M-ES-WB-Comp1	1,180	5.62	21
		LDW-05-T4-M-ES-WB-Comp2	940	3.85	24

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
English sole – whole body (calculated)[b]	T1	LDW-05-T1-M-ES-WB-Comp1 Calculated	1,770 M	6.14 M	29 M
		LDW-05-T1-M-ES-WB-Comp2 Calculated	1,700 M	6.12 M	28 M
		LDW-05-T1-M-ES-WB-Comp3 Calculated	1,310 M	4.60 M	28 M
	T2	LDW-05-T2-M-ES-WB-Comp1 Calculated	1,620 M	5.79 M	28 M
		LDW-05-T2-M-ES-WB-Comp2 Calculated	1,700 M	5.10 M	33 M
		LDW-05-T2-M-ES-WB-Comp3 Calculated	1,590 M	5.62 M	28 M
	T3	LDW-05-T3-M-ES-WB-Comp1 Calculated	1,860 M	7.53 M	25 M
		LDW-05-T3-M-ES-WB-Comp2 Calculated	610 M	3.09 M	20 M
		LDW-05-T3-M-ES-WB-Comp3 Calculated	950 M	5.14 M	18 M
	T4	LDW-05-T4-M-ES-WB-Comp1 Calculated	910 M	6.25 M	15 M
Pacific staghorn sculpin – whole body	T1	LDW-05-T1-C-PS-WB-Comp1	720 J	2.17	33 J
	T2	LDW-05-T2-E-PS-WB-Comp1	620	1.92	32
	T3	LDW-05-T3-F-PS-WB-Comp1	590	1.34	44
	T4	LDW-05-T4-C-PS-WB-Comp1	430	1.18	36
Shiner surfperch – whole body	T1	LDW-05-T1-A-SS-WB-Comp1	720	5.75	13
		LDW-05-T1-B-SS-WB-Comp1	660	6.01	11
		LDW-05-T1-C-SS-WB-Comp1	880	5.08	17
		LDW-05-T1-D-SS-WB-Comp1	530 J	6.15	8.6 J
		LDW-05-T1-E-SS-WB-Comp1	960 J	6.16	16 J
		LDW-05-T1-F-SS-WB-Comp1	930	4.31	22
	T2	LDW-05-T2-A-SS-WB-Comp1	770	5.70	14
		LDW-05-T2-B-SS-WB-Comp1	1,300	5.79	22
		LDW-05-T2-C-SS-WB-Comp1	2,000	4.74	42
		LDW-05-T2-D-SS-WB-Comp1	1,160	5.10	23
		LDW-05-T2-E-SS-WB-Comp1	1,900	5.99	32
		LDW-05-T2-F-SS-WB-Comp1	660	5.26	13
	T3	LDW-05-T3-A-SS-WB-Comp1	1,500	4.98	30
		LDW-05-T3-B-SS-WB-Comp1	700	5.26	13
		LDW-05-T3-C-SS-WB-Comp1	1,250	5.59	22
		LDW-05-T3-D-SS-WB-Comp1	2,400	6.92	35
		LDW-05-T3-E-SS-WB-Comp1	820	5.21	16
		LDW-05-T3-F-SS-WB-Comp1	2,100	6.70	31
	T4	LDW-05-T4-A-SS-WB-Comp1	600	6.16	9.7
		LDW-05-T4-B-SS-WB-Comp1	580	6.93	8.4
		LDW-05-T4-C-SS-WB-Comp1	600	6.16	9.7
		LDW-05-T4-D-SS-WB-Comp1	540	6.26	8.6

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg/kg lipid)[a]
Dungeness crab – edible meat	T1	LDW-05-T1-M-DC-EM-Comp1	20 U	0.191 J	10 U
	T3	LDW-05-T3-M-DC-EM-Comp1	20 U	0.146 J	14 U
	T4	LDW-05-T4-M-DC-EM-Comp1	20 U	0.232 J	8.6 U
Dungeness crab – hepatopancreas	T1	LDW-05-T1-M-DC-HP-Comp1	1,420	8.14 J	17 J
	T3	LDW-05-T3-M-DC-HP-Comp1	1,310	4.28 J	31 J
	T4	LDW-05-T4-M-DC-HP-Comp1	1,320	5.52 J	24 J
Dungeness crab – whole body (calculated)[c]	T1	LDW-05-T1-M-DC-WB-Comp1 Calculated	454 M	2.66 JM	17 JM
	T3	LDW-05-T3-M-DC-WB-Comp1 Calculated	420 M	1.43 JM	29 JM
	T4	LDW-05-T4-M-DC-WB-Comp1 Calculated	423 M	1.87 JM	23 JM
Slender crab – edible meat	T2	LDW-05-T2-M-SC-EM-Comp1	64	0.315 J	20 J
Slender crab – hepatopancreas	T2	LDW-05-T2-M-SC-HP-Comp1	660	2.47 J	27 J
Slender crab – whole body (calculated)[c]	T2	LDW-05-T2-M-SC-WB-Comp1 Calculated	250 M	0.983 JM	25 JM

[a] Lipid-normalized concentrations (in units of mg PCBs/kg lipid) represent the wet-weight total PCB concentration (in units of mg/kg ww) divided by the decimal fraction corresponding to the percent lipid (e.g., 2.0% lipid = 0.02).

[b] Concentrations in “whole body” samples were estimated using results from separate analyses of fillet and remainder composite samples (i.e., all remaining tissue and fluids after fillets were removed from the specimens). The estimated English sole “whole-body” concentrations were based on the relative weights and total PCB concentrations in skin-on fillet and remainder tissues.

[c] Data from composite hepatopancreas samples were mathematically combined with data from composite samples of edible meat to form composite samples of whole body crab (i.e., edible meat plus hepatopancreas). Concentrations in whole-body crab were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weights of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

J – estimated concentration

JM – calculated concentration from an estimated concentration

LDW – Lower Duwamish Waterway

M – calculated concentration

PCB – polychlorinated biphenyl

U – not detected at the reporting limit shown

ww – wet weight

Table E.4-3. Concentrations of total PCBs (Aroclor sum) and lipids in LDW fish and crab tissue samples collected in 2007

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipids (% ww)	Lipid-Normalized Total PCBs (mg/kg lipid)[a]
English sole – whole body	T1	LDW-07-T1-M-ES-WB-comp1	410	4.62	8.9
		LDW-07-T1-M-ES-WB-comp2	780	7.20	11
		LDW-07-T1-M-ES-WB-comp3	460	6.85	6.7
		LDW-07-T1-M-ES-WB-comp4	720	6.50	11
		LDW-07-T1-M-ES-WB-comp5	420	3.83	11
		LDW-07-T1-M-ES-WB-comp6	360	7.22	5.0
	T2	LDW-07-T2-A-ES-WB-comp1	550	5.46	10
		LDW-07-T2-A-ES-WB-comp2	870 J	9.00	9.7 J
		LDW-07-T2-A-ES-WB-comp3	630	5.82	11
		LDW-07-T2-A-ES-WB-comp4	750	8.07	9.3
		LDW-07-T2-A-ES-WB-comp5	380	4.46	8.5
		LDW-07-T2-A-ES-WB-comp6	980	5.82	17
	T3	LDW-07-T3-M-ES-WB-comp1	910 J	4.43	21 J
		LDW-07-T3-M-ES-WB-comp2	660 J	2.34	28 J
		LDW-07-T3-M-ES-WB-comp3	760 J	6.64	11 J
		LDW-07-T3-M-ES-WB-comp4	1,600 J	10.9	15 J
		LDW-07-T3-M-ES-WB-comp5	830 J	9.90	8.4 J
		LDW-07-T3-M-ES-WB-comp6	600	4.40	14
	T4	LDW-07-T4-M-ES-WB-comp1	300	4.62	6.5
Shiner perch – whole body	T1	LDW-07-T1-A-SS-WB-comp1	200 J	2.57	7.8 J
		LDW-07-T1-B-SS-WB-comp1	220 J	2.20	10 J
		LDW-07-T1-C-SS-WB-comp1	360 J	4.94	7.3 J
		LDW-07-T1-D-SS-WB-comp1	250	1.80	14
		LDW-07-T1-E-SS-WB-comp1	270 J	3.99	6.8 J
		LDW-07-T1-F-SS-WB-comp1	310 J	3.30	9.4 J
	T2	LDW-07-T2-A-SS-WB-comp1	320 J	2.90	11 J
		LDW-07-T2-B-SS-WB-comp1	290 J	4.40	6.6 J
		LDW-07-T2-C-SS-WB-comp1	400 J	3.32	12 J
		LDW-07-T2-D-SS-WB-comp1	400 J	4.86	8.2 J
		LDW-07-T2-E-SS-WB-comp1	470 J	4.46	11 J
		LDW-07-T2-F-SS-WB-comp1	610 J	4.31	14 J

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipids (% ww)	Lipid-Normalized Total PCBs (mg/kg lipid)[a]
Shiner perch – whole body (cont.	T3	LDW-07-T3-A-SS-WB-comp1	430 J	3.70	12 J
		LDW-07-T3-B-SS-WB-comp1	780 J	4.41	18 J
		LDW-07-T3-C-SS-WB-comp1	520 J	4.54	11 J
		LDW-07-T3-D-SS-WB-comp1	780 J	3.79	21 J
		LDW-07-T3-E-SS-WB-comp1	740 J	3.43	22 J
		LDW-07-T3-F-SS-WB-comp1	1,330 J	4.94	27 J
	T4	LDW-07-T4-A-SS-WB-comp1	260 J	4.78	5.4 J
		LDW-07-T4-B-SS-WB-comp1	300 J	3.62	8.3 J
		LDW-07-T4-C-SS-WB-comp1	290 J	4.16	7.0 J
		LDW-07-T4-D-SS-WB-comp1	410 J	4.77	8.6 J
Starry flounder – whole body	T4	LDW-07-T4-M-SF-WB-comp1	240	3.29	7.3
		LDW-07-T4-M-SF-WB-comp2	170	0.917	19
		LDW-07-T4-M-SF-WB-comp3	156	1.64	9.5
English sole – fillet with skin	T1	LDW-07-T1-M-ES-FL-comp1	270	3.00	9.0
		LDW-07-T1-M-ES-FL-comp2	500	4.11	12
		LDW-07-T1-M-ES-FL-comp3	260	2.85	9.1
	T2	LDW-07-T2-A-ES-FL-comp1	350	3.14	11
		LDW-07-T2-A-ES-FL-comp2	170	2.14	7.9
		LDW-07-T2-A-ES-FL-comp3	360	3.63	9.9
	T3	LDW-07-T3-M-ES-FL-comp1	490	3.26	15
		LDW-07-T3-M-ES-FL-comp2	380	2.96	13
		LDW-07-T3-M-ES-FL-comp3	340	1.77	19
Starry flounder – fillet with skin	T4	LDW-07-T4-M-SF-FL-comp1	63	2.23	2.8
Dungeness crab – hepatopancreas	T1	LDW-07-T1-M-DC-HP-comp1	280	3.72	7.5
	T3	LDW-07-T3-M-DC-HP-comp1	420	4.56	9.2
		LDW-07-T3-M-DC-HP-comp2	520	6.00	8.7
		LDW-07-T3-M-DC-HP-comp3	1,020	6.87	15
Dungeness crab – edible meat	T1	LDW-07-T1-M-DC-EM-comp1	15	0.440	3.4
	T3	LDW-07-T3-M-DC-EM-comp1	39	0.508	7.7
		LDW-07-T3-M-DC-EM-comp2	40	0.644	6.2
		LDW-07-T3-M-DC-EM-comp3	51 J	0.531	9.6 J
Dungeness crab – whole body (calculated)[b]	T1	LDW-07-T1-M-DC-WB-comp1 Calculated	97 M	1.46 M	6.6 M
	T3	LDW-07-T3-M-DC-WB-comp1 Calculated	160 M	1.76 M	9.1 M
		LDW-07-T3-M-DC-WB-comp2 Calculated	190 M	2.30 M	8.3 M
		LDW-07-T3-M-DC-WB-comp3 Calculated	351 JM	2.50 M	14 JM

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipids (% ww)	Lipid-Normalized Total PCBs (mg/kg lipid)[a]
Slender crab – hepatopancreas	T1	LDW-07-T1-M-SC-HP-comp1	480	2.79	17
		LDW-07-T1-M-SC-HP-comp2	480	1.71	28
		LDW-07-T1-M-SC-HP-comp3	660	1.64	40
	T2	LDW-07-T2-M-SC-HP-comp1	250	3.90	6.4
		LDW-07-T2-M-SC-HP-comp2	270	4.10	6.6
		LDW-07-T2-M-SC-HP-comp3	270	3.07	8.8
Slender crab – edible meat	T1	LDW-07-T1-M-SC-EM-comp1	41	0.444	9.2
		LDW-07-T1-M-SC-EM-comp2	41 J	0.428	9.6 J
		LDW-07-T1-M-SC-EM-comp3	48 J	0.408	12 J
	T2	LDW-07-T2-M-SC-EM-comp1	40	0.592	6.8
		LDW-07-T2-M-SC-EM-comp2	27	0.452	6.0
		LDW-07-T2-M-SC-EM-comp3	46 J	0.628	7.3 J
Slender crab – whole body (calculated)[b]	T1	LDW-07-T1-M-SC-WB-comp1 Calculated	180 M	1.17 M	15 M
		LDW-07-T1-M-SC-WB-comp2 Calculated	180 JM	0.825 M	22 JM
		LDW-07-T1-M-SC-WB-comp3 Calculated	240 JM	0.790 M	30 JM
	T2	LDW-07-T2-M-SC-WB-comp1 Calculated	110 M	1.62 M	6.8 M
		LDW-07-T2-M-SC-WB-comp2 Calculated	100 M	1.58 M	6.3 M
		LDW-07-T2-M-SC-WB-comp3 Calculated	120 JM	1.39 M	8.6 JM

[a] Lipid-normalized concentrations (in units of mg PCBs/kg lipid) represent the wet-weight total PCB concentration (in units of mg/kg ww) divided by the decimal fraction corresponding to the percent lipid (e.g., 2.0% lipid = 0.02).

[b] Data from composite hepatopancreas samples were mathematically combined with data from composite samples of edible meat to form composite samples of whole body crab (i.e., edible meat plus hepatopancreas). Concentrations in whole-body crab were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weights of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

J – estimated concentration
JM – calculated concentration from an estimated concentration
LDW – Lower Duwamish Waterway
M – calculated concentration
PCB – polychlorinated biphenyl
ww – wet weight

Table E.4-4. Concentrations of PCBs (PCB congener sum) and lipids in LDW fish and crab tissue samples collected in 2004

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg PCBs/kg lipid)[a]
English sole – fillet	T1	LDW-T1-M-ES-FL-comp-2	858 J	2.6	33 J
		LDW-T1-M-ES-FL-comp-1	1,119 J	3.1	36 J
	T2	LDW-T2-M-ES-FL-comp-2	1,265 J	4.3	29 J
		LDW-T2-M-ES-FL-comp-1	1,269 J	3.4	37 J
	T3	LDW-T3-M-ES-FL-comp-1	641 J	1.6	40 J
		LDW-T3-M-ES-FL-comp-2	1,023 J	3.6	28 J
	T4	LDW-T4-M-ES-FL-comp-1	510 J	1.7	30 J
English sole – whole body	T1	LDW-T1-M-ES-WB-comp-2	1,614 J	5	32 J
		LDW-T1-M-ES-WB-comp-4	2,481 J	5.7	44 J
	T2	LDW-T2-M-ES-WB-comp-5	2,126 J	7.6	28 J
		LDW-T2-M-ES-WB-comp-3	2,712 J	7.6	36 J
	T3	LDW-T3-M-ES-WB-comp-2	1,419 J	4.7	30 J
		LDW-T3-M-ES-WB-comp-3	2,457 J	5.5	45 J
	T4	LDW-T4-M-ES-WB-comp-1	1,361 J	5.9	23 J
Shiner surfperch – whole body	T1	LDW-T1-A-SS-WB-comp-1	700 J	5	14 J
		LDW-T1-F-SS-WB-comp-1	877 J	2.8	31 J
	T2	LDW-T2-B-SS-WB-comp-1	1,055 J	2.5	42 J
		LDW-T2-E-SS-WB-comp-1	12,228 J	5.6	218 J
	T3	LDW-T3-C-SS-WB-comp-1	1,009 J	3.4	30 J
		LDW-T3-F-SS-WB-comp-1	3,522 J	4.6	77 J
		LDW-T3-E-SS-WB-comp-1	8010 J	3.1	258 J
	T4	LDW-T4-D-SS-WB-comp-1	532 J	4.3	12J
		LDW-T4-B-SS-WB-comp-1	770 J	3.3	23 J
Dungeness crab – edible meat	T1	LDW-T1-M-DC-EM-comp-2	111 J	0.39	28 J
	T3	LDW-T3-M-DC-EM-comp-1	149 J	0.23	65 J
	T4	LDW-T4-M-DC-EM-comp-1	149 J	0.72	21 J
Dungeness crab – hepatopancreas	T3	LDW-T3-M-DC-HP-comp-1	3,620 J	6.3	57.5 J
	T4	LDW-T4-M-DC-HP-comp-1	3,618 J	7.9	45.8 J
Dungeness crab – whole body (calculated)[b]	T3	LDW-T3-M-DC-WB-comp-1 Calculated	1,226 JM	2.1	58 JM
	T4	LDW-T4-M-DC-WB-comp-1 Calculated	1,224 JM	2.9	42 JM

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg PCBs/kg lipid)[a]
Slender crab – edible meat	T1	LDW-T1-M-SC-EM-comp-2	175 J	0.54	32 J
		LDW-T1-M-SC-EM-comp-1	187 J	0.74	25 J
	T2	LDW-T2-M-SC-EM-comp-6	130 J	0.26	50 J
		LDW-T2-M-SC-EM-comp-5	181 J	0.34	53 J
	T3	LDW-T3-M-SC-EM-comp-2	134 J	0.51	26 J
Slender crab – hepatopancreas	T1	LDW-T1-M-SC-HP-comp-1	790 J	1.9	41.6 J
	T2	LDW-T2-M-SC-HP-comp-2	1,050 J	3.6	29.2 J
Slender crab – whole body (calculated)[b]	T1	LDW-T1-M-SC-WB-comp-1 Calculated	373.6 JM	1.1	34 JM
		LDW-T1-M-SC-WB-comp-2 Calculated	365.5 JM	0.96	38 JM
	T2	LDW-T2-M-SC-WB-comp-6 Calculated	449.18 JM	1.40	32 JM
		LDW-T2-M-SC-WB-comp-5 Calculated	414.06JM	1.30	32 JM

[a] Lipid-normalized concentrations (in units of mg PCBs/kg lipid) represent the wet-weight total PCB concentration (in units of mg/kg ww) divided by the decimal fraction corresponding to the percent lipid (e.g., 2.0% lipid = 0.02).

[b] Data from composite hepatopancreas samples were mathematically combined with data from composite samples of edible meat to form composite samples of whole body crab (i.e., edible meat plus hepatopancreas). Concentrations in whole-body crab were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weights of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

J – estimated concentration

JM – calculated concentration from an estimated concentration

LDW – Lower Duwamish Waterway

PCB – polychlorinated biphenyl

ww – wet weight

Table E.4-5. Concentrations of PCBs (PCB congener sum) and lipids in LDW fish tissue samples collected in 2005

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg PCBs/kg lipid)[a]
English sole - whole body	T1	LDW-05-T1-M-ES-WB-Comp3	2,589 J	3.13	83
	T2	LDW-05-T2-M-ES-WB-Comp3	3,214 J	6.23	52
	T3	LDW-05-T3-M-ES-WB-Comp2	1,433 J	4.77	30
Shiner surfperch - whole body	T1	LDW-05-T1-B-SS-WB-Comp1	683 J	6.01	11
	T2	LDW-05-T2-B-SS-WB-Comp1	1,047 J	5.79	18
	T3	LDW-05-T3-D-SS-WB-Comp1	2,048 J	6.92	30

[a] Lipid-normalized concentrations (in units of mg PCBs/kg lipid) represent the wet-weight total PCB concentration (in units of mg/kg ww) divided by the decimal fraction corresponding to the percent lipid (e.g., 2.0% lipid = 0.02).

J – estimated concentration

LDW – Lower Duwamish Waterway

PCB – polychlorinated biphenyl

ww – wet weight

Table E.4-6. Concentrations of PCBs (PCB congener sum) and lipids in LDW fish and crab tissue samples collected in 2007

Tissue Type	Area	Sample ID	Total PCBs (µg/kg ww)	Lipid (%)	Lipid-Normalized PCBs (mg PCBs/kg lipid)[a]
English sole – whole body	T1	LDW-07-T1-M-ES-WB-comp3	1,165 J	6.85	17.0
		LDW-07-T1-M-ES-WB-comp5	774 J	3.83	20.2
	T2	LDW-07-T2-A-ES-WB-comp2	1,632 J	9.00	18.1
		LDW-07-T2-A-ES-WB-comp4	1,603 J	8.07	19.9
	T3	LDW-07-T3-M-ES-WB-comp4	2,928 J	10.9	26.9
		LDW-07-T3-M-ES-WB-comp6	1,032 J	4.40	23.5
Shiner surfperch – whole body	T1	LDW-07-T1-B-SS-WB-comp1	974 J	2.20	44.3
		LDW-07-T1-C-SS-WB-comp1	504.1 J	4.94	10.2
	T2	LDW-07-T2-B-SS-WB-comp1	401.6	4.40	9.13
		LDW-07-T2-E-SS-WB-comp1	648.3 J	4.46	14.5
	T3	LDW-07-T3-E-SS-WB-comp1	1,103 J	3.43	32.2
		LDW-07-T3-F-SS-WB-comp1	2,462 J	4.94	49.8
Dungeness crab – edible meat	T1	LDW-07-T1-M-DC-EM-comp1	49.45 J	0.440	11.2 J
	T3	LDW-07-T3-M-DC-EM-comp3	86.2 J	0.531	16.2 J
Dungeness crab – hepatopancreas	T1	LDW-07-T1-M-DC-HP-comp1	612.1 J	3.72	16.5
Dungeness crab – whole body (calculated)[b]	T1	LDW-07-T1-M-DC-WB-comp1-calculated	223.9 JM	1.46 M	15.3 JM
Slender crab – edible meat	T1	LDW-07-T1-M-SC-EM-comp2	112 J	0.428	26.2
	T2	LDW-07-T2-M-SC-EM-comp1	86.2 J	0.592	14.6

[a] Lipid-normalized concentrations (in units of mg PCBs/kg lipid) represent the wet-weight total PCB concentration (in units of mg/kg ww) divided by the decimal fraction corresponding to the percent lipid (e.g., 2.0% lipid = 0.02).

[b] Data from composite hepatopancreas samples were mathematically combined with data from composite samples of edible meat to form composite samples of whole body crab (i.e., edible meat plus hepatopancreas). Concentrations in whole-body crab were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weights of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

J – estimated concentration

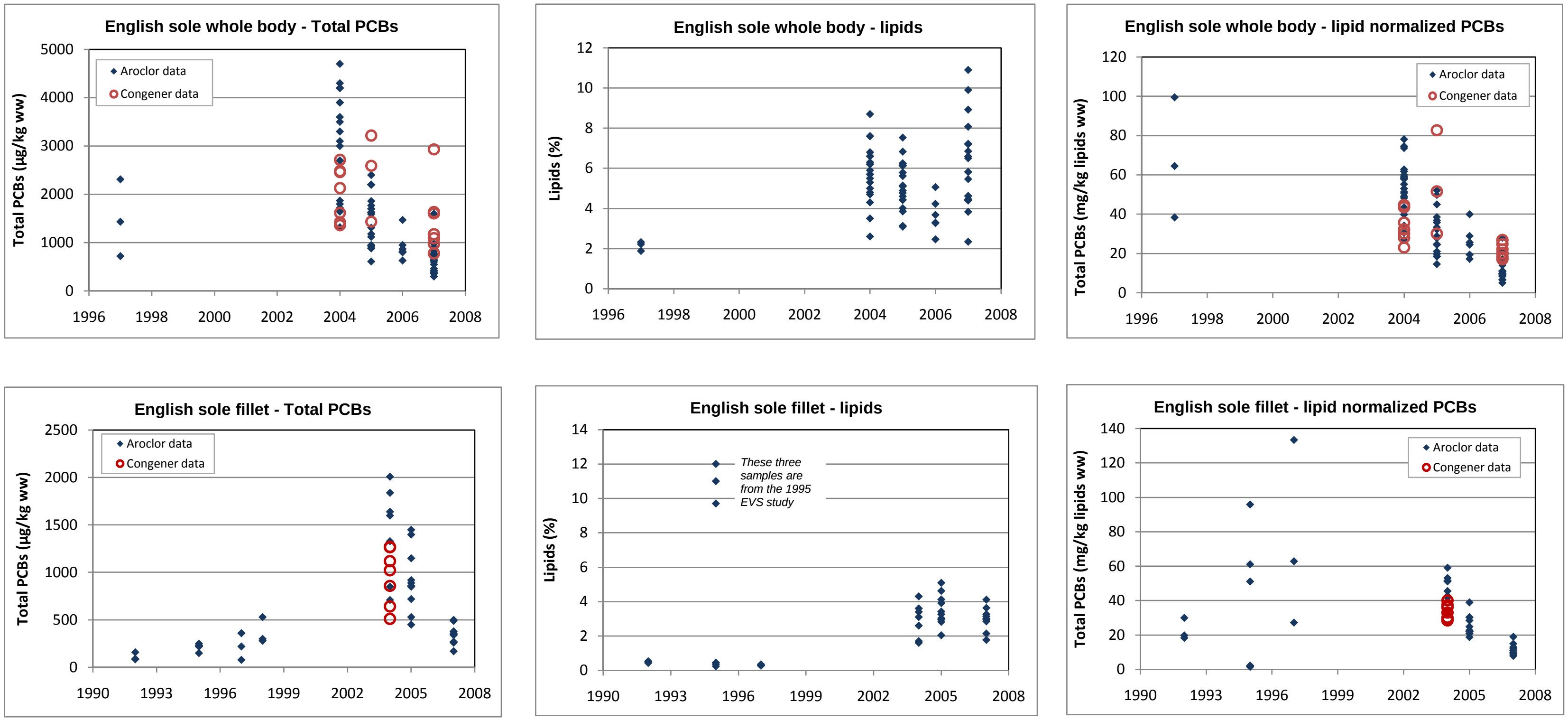
JM – calculated concentration from an estimated concentration

LDW – Lower Duwamish Waterway

M – calculated concentration

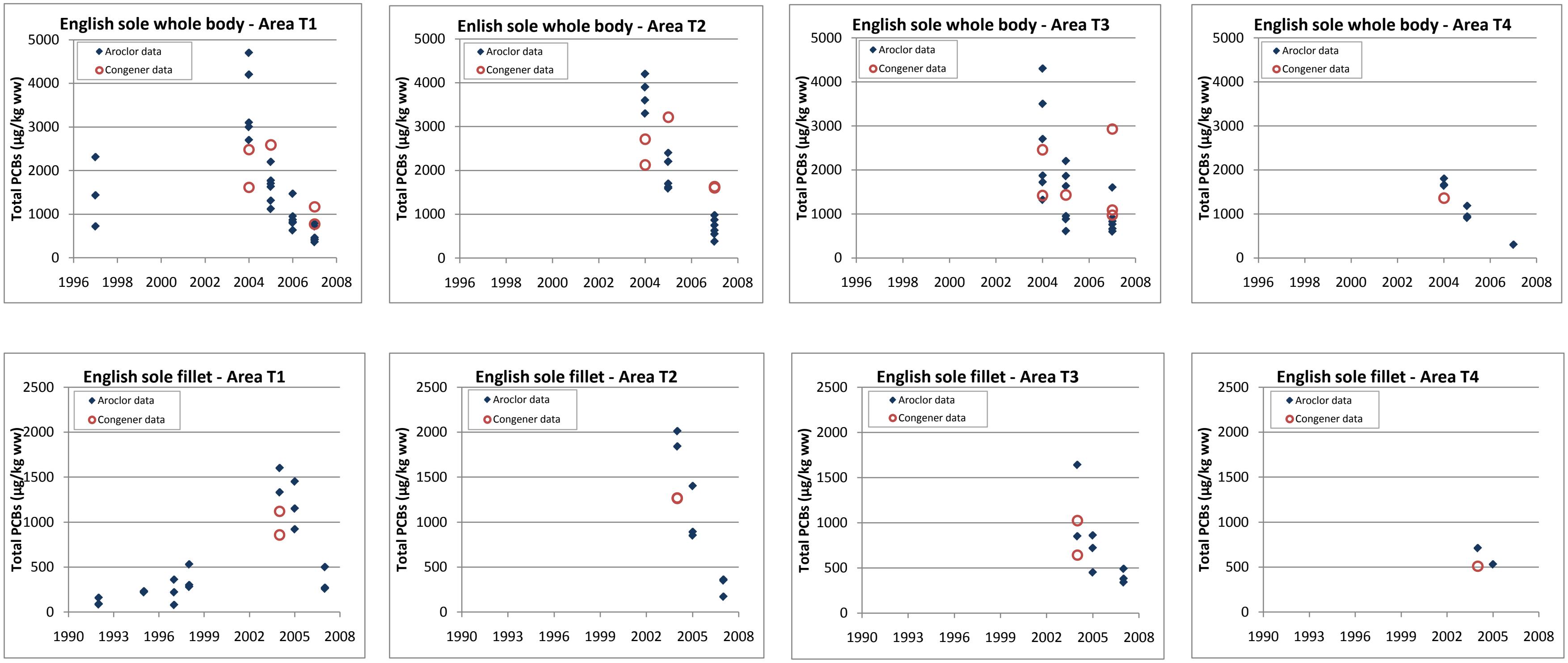
PCB – polychlorinated biphenyl

ww – wet weight



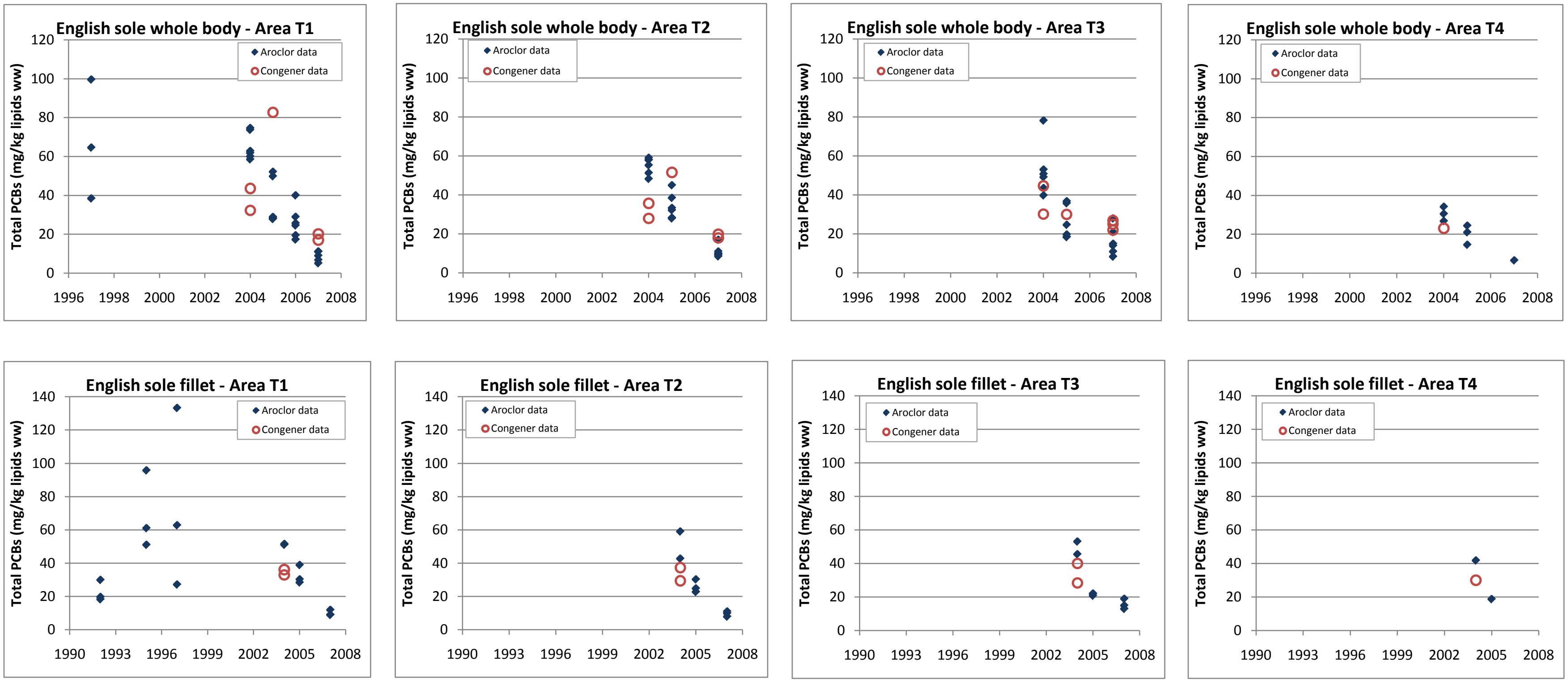
Note: English sole whole body samples from 1997 consisted of tissue remaining after subsamples were removed. In addition, livers were removed from some fish in these composite samples.

Figure E.4-1. Concentrations of total PCBs (ww), lipids, and lipid-normalized PCBs in English sole samples collected throughout the LDW



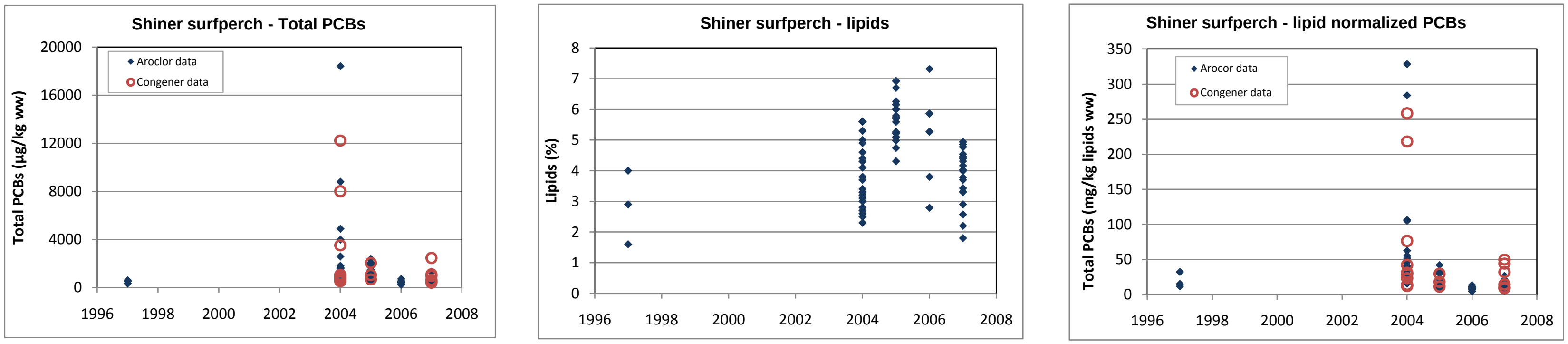
Note: English sole whole body samples from 1997 consisted of tissue remaining after subsamples were removed. In addition, livers were removed from some fish in these composite samples.

Figure E.4-2. Concentrations of total PCBs (ww) in English sole samples collected in each of the four tissue sampling areas (T1, T2, T3, and T4)

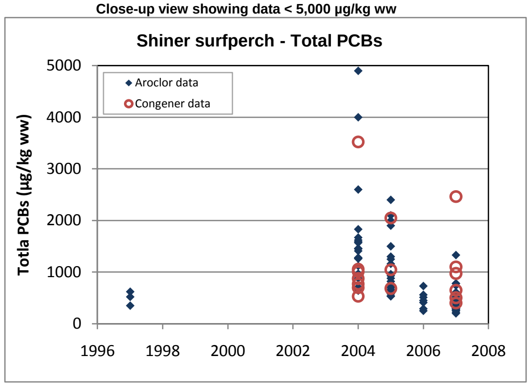


Note: English sole whole body samples from 1997 consisted of tissue remaining after subsamples were removed. In addition, livers were removed from some fish in these composite samples.

Figure E.4-3. Concentrations of lipid-normalized PCBs in English sole samples collected in each of the four tissue sampling areas (T1, T2, T3, and T4)



Close-up view showing data < 5,000 µg/kg ww



Close-up view showing data < 120 mg/kg-lipids ww

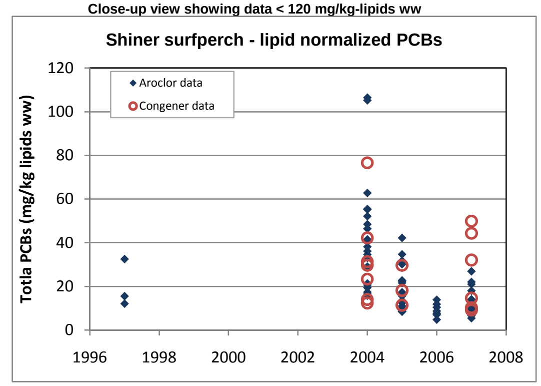
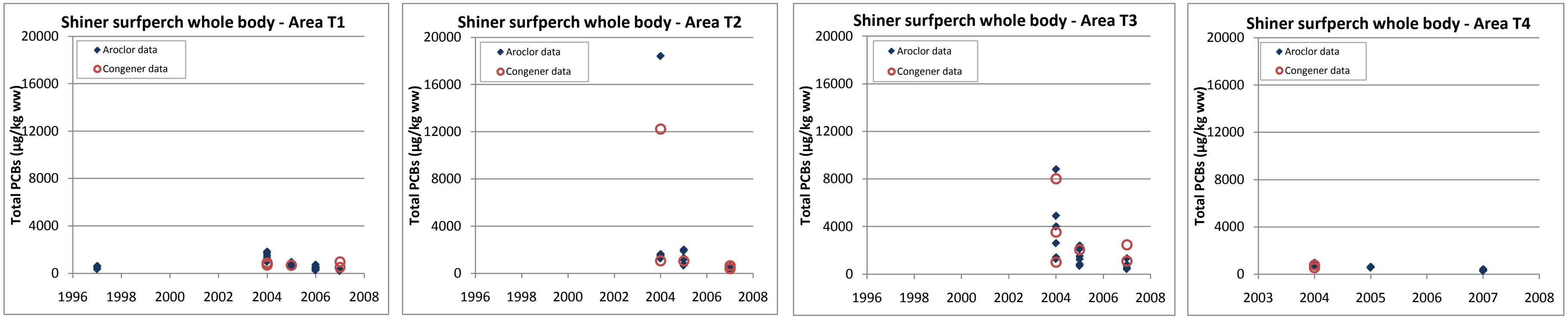


Figure E.4-4. Concentrations of total PCBs (ww), lipids, and lipid-normalized PCBs in shiner surfperch whole-body samples collected throughout the LDW



Close-up view of shiner surfperch, showing data < 5,000 µg/kg ww

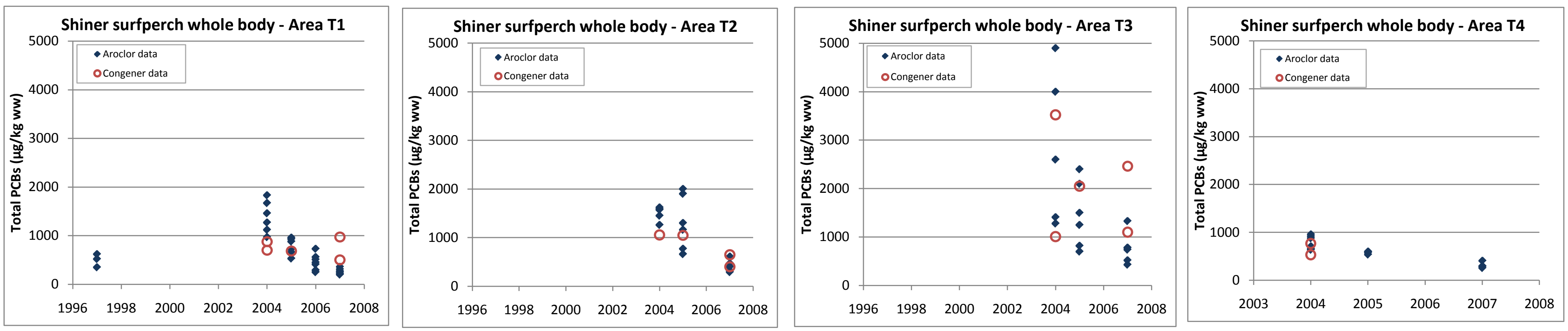


Figure E.4-5. Concentrations of total PCBs (ww) in shiner surfperch whole-body samples collected in each of the four tissue sampling areas (T1, T2, T3, and T4)

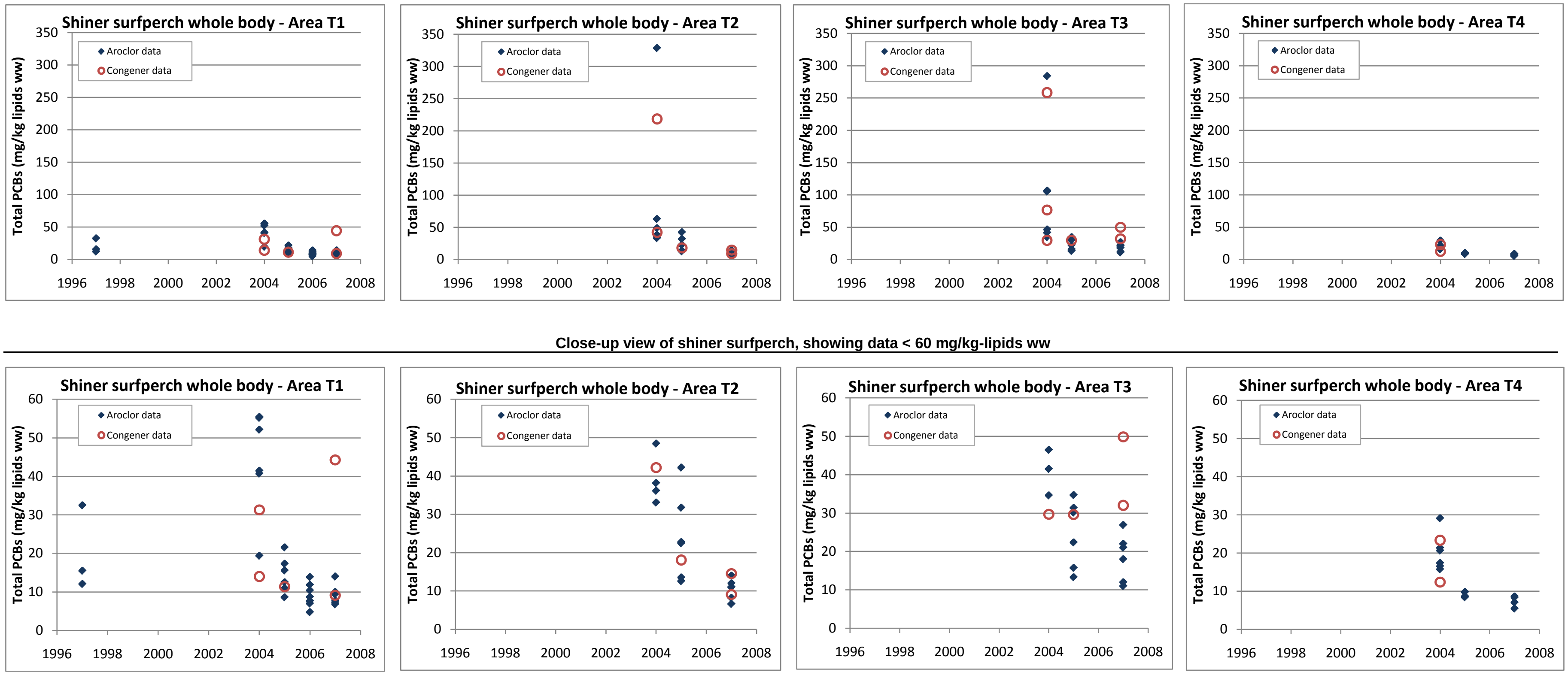


Figure E.4-6. Concentrations of lipid-normalized PCBs in shiner surfperch whole-body samples collected in each of the four tissue sampling areas (T1, T2, T3, and T4)

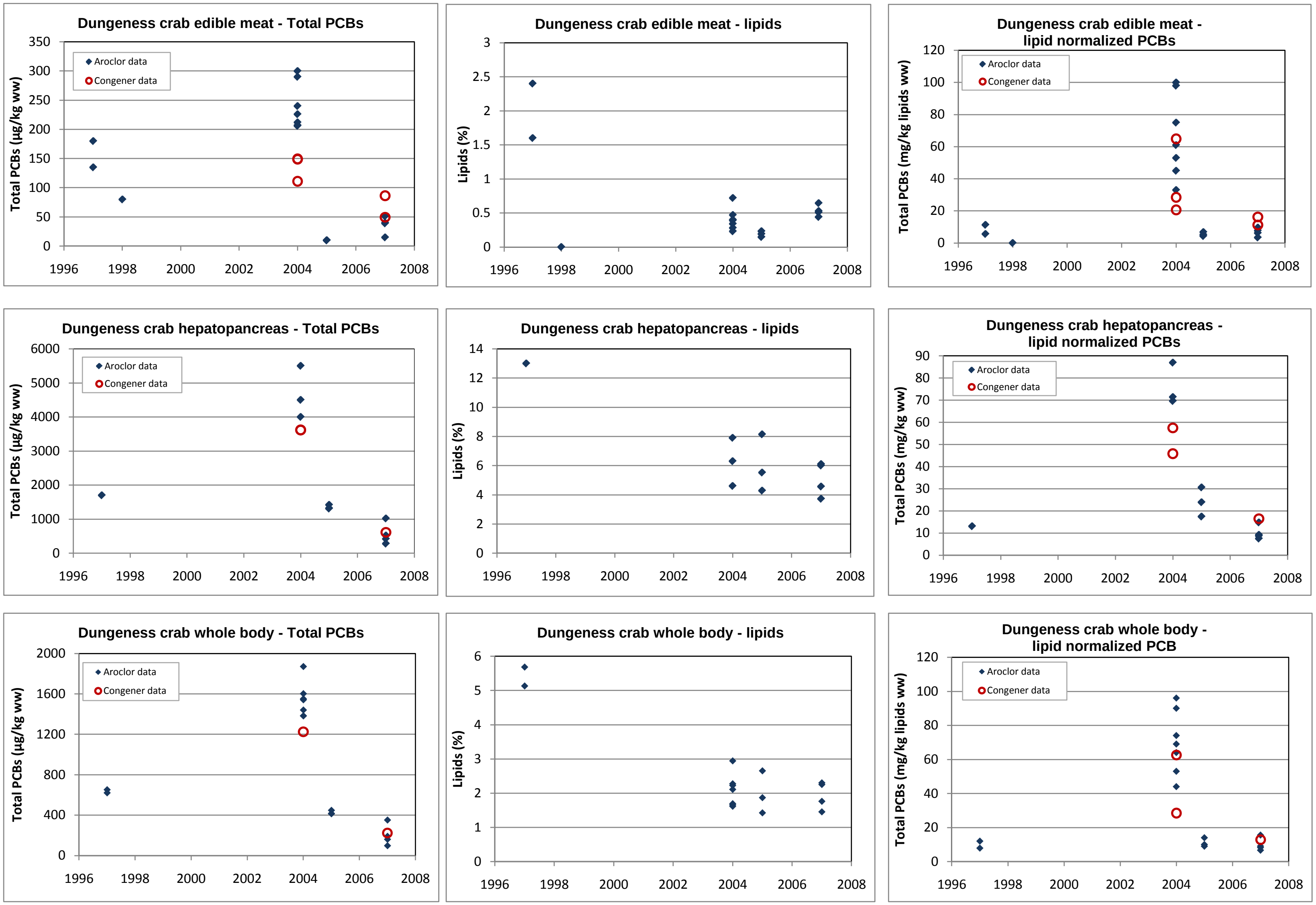


Figure E.4-7. Concentrations of total PCBs (ww), lipids, and lipid-normalized PCBs in Dungeness crab samples collected throughout the LDW

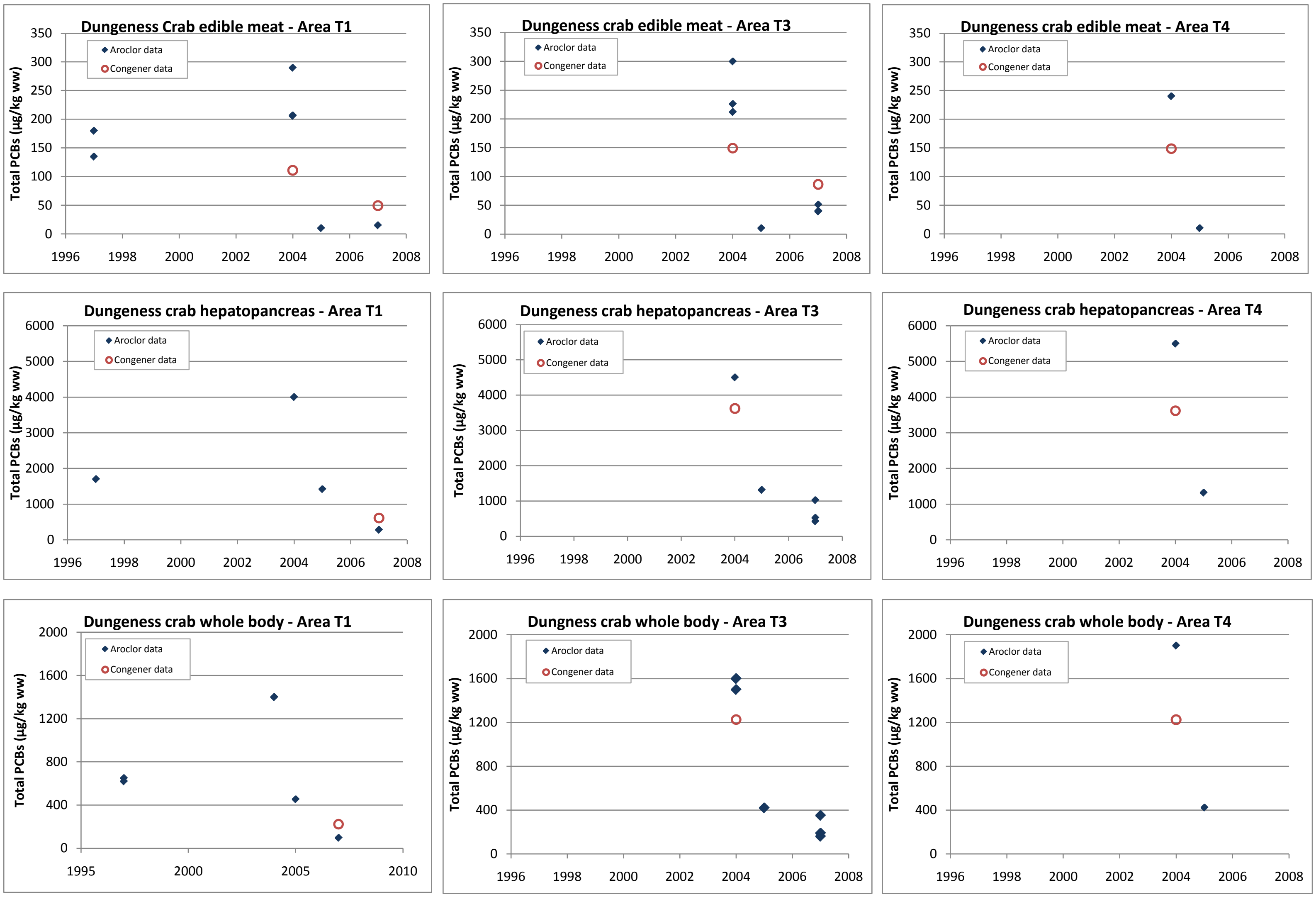


Figure E.4-8. Concentrations of total PCBs (ww) in Dungeness crab samples collected in each of three tissue sampling areas (T1, T3, and T4; no Dungeness crab were collected in Area T2)

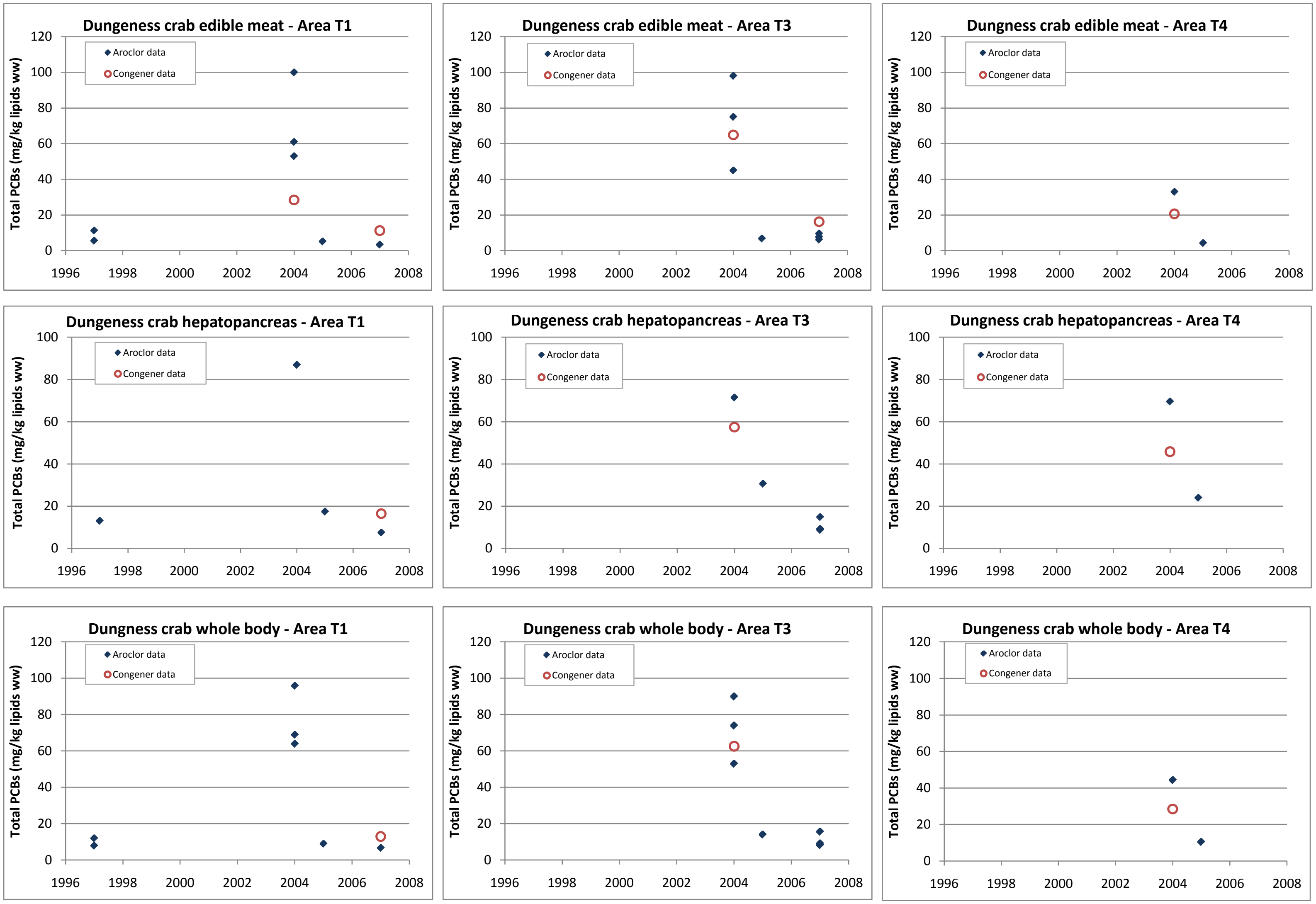


Figure E.4-9. Concentrations of lipid-normalized PCBs in Dungeness crab samples collected in each of three tissue sampling areas (T1, T3, and T4; no Dungeness crab were collected in Area T2)

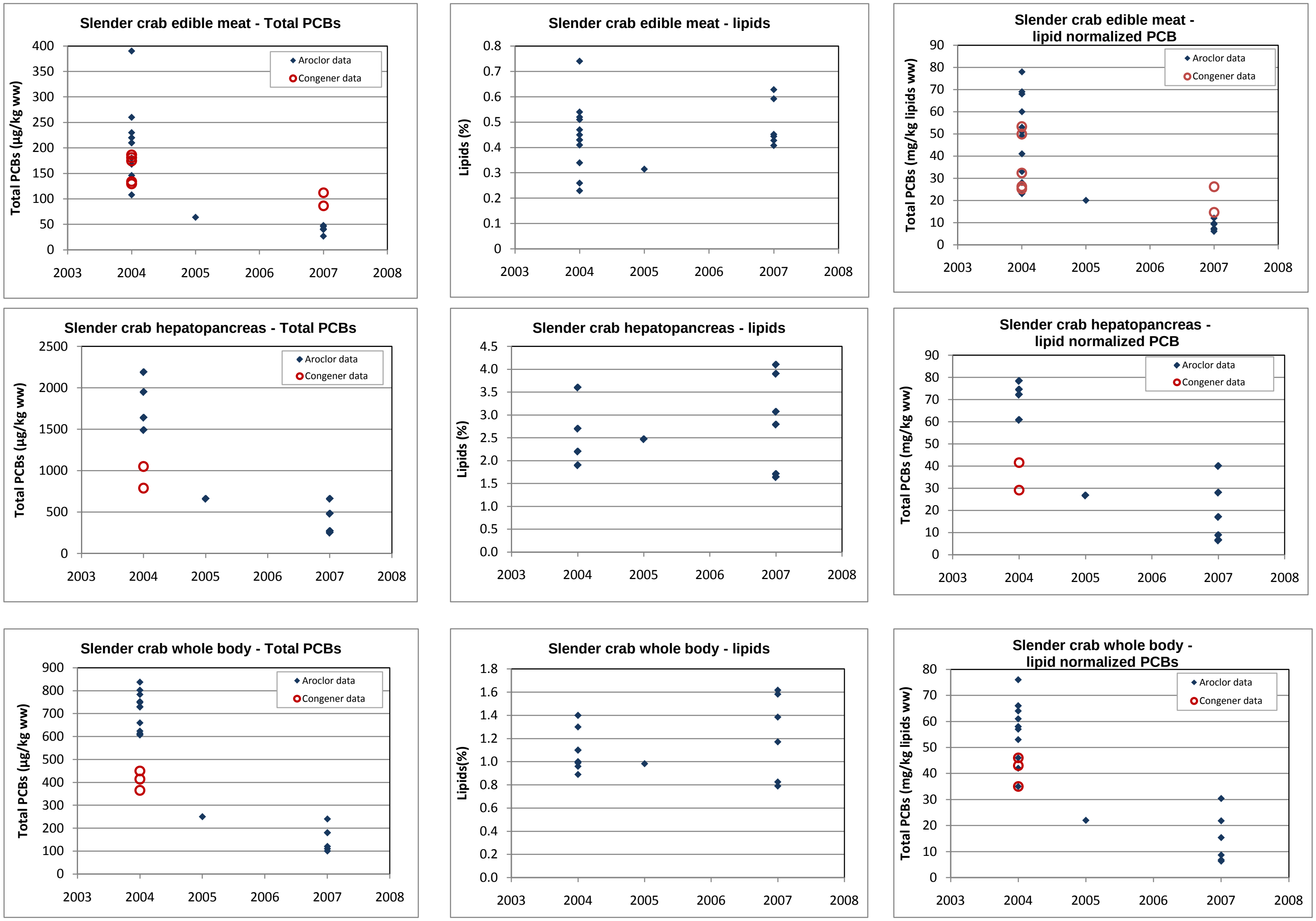


Figure E.4-10. Concentrations of total PCBs (ww), lipids, and lipid-normalized PCBs in slender crab samples collected throughout the LDW

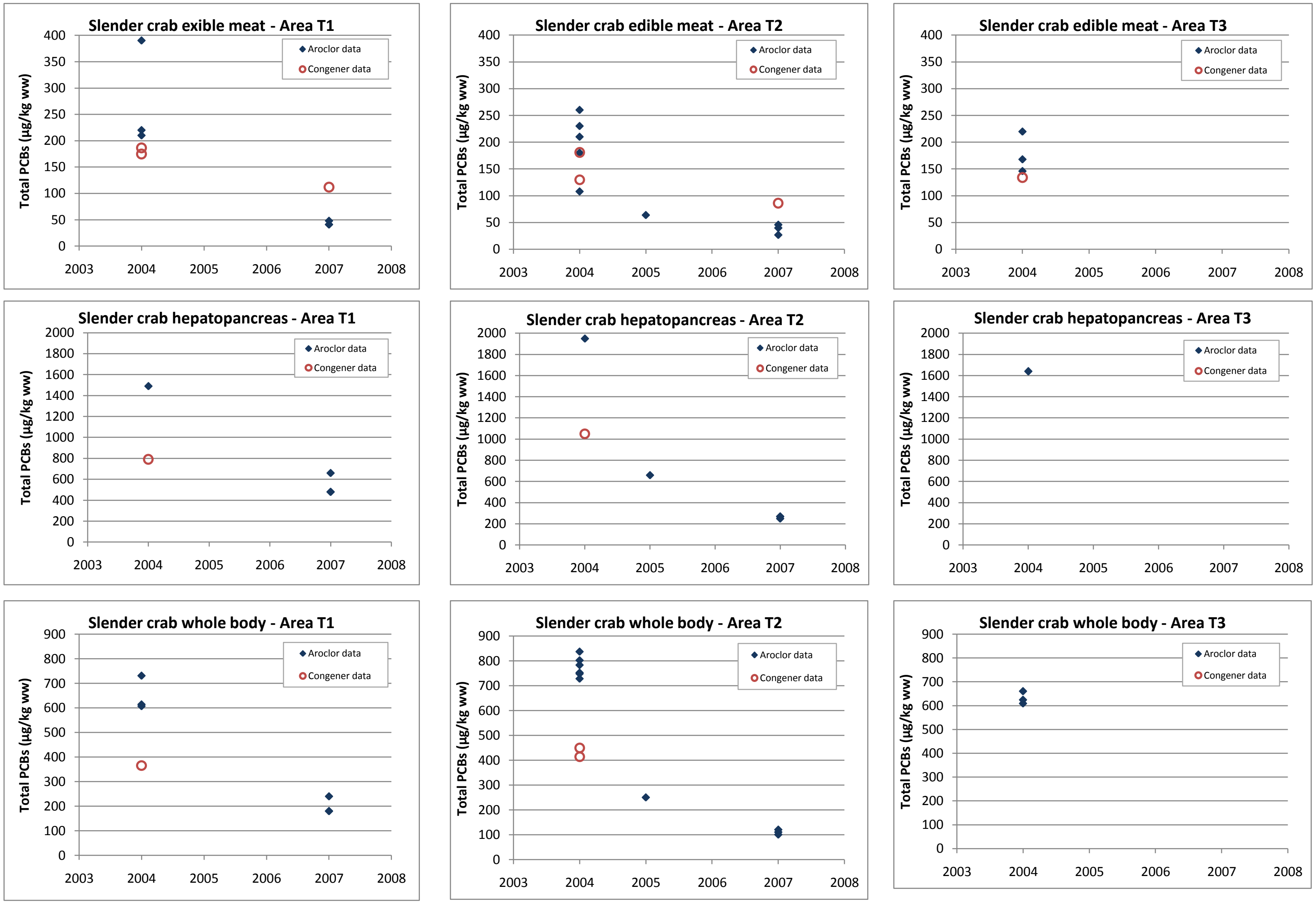


Figure E.4-11. Concentrations of total PCBs (ww) in slender crab samples collected in each of three tissue sampling areas (T1, T2, and T3; no slender crab were collected in Area T4)

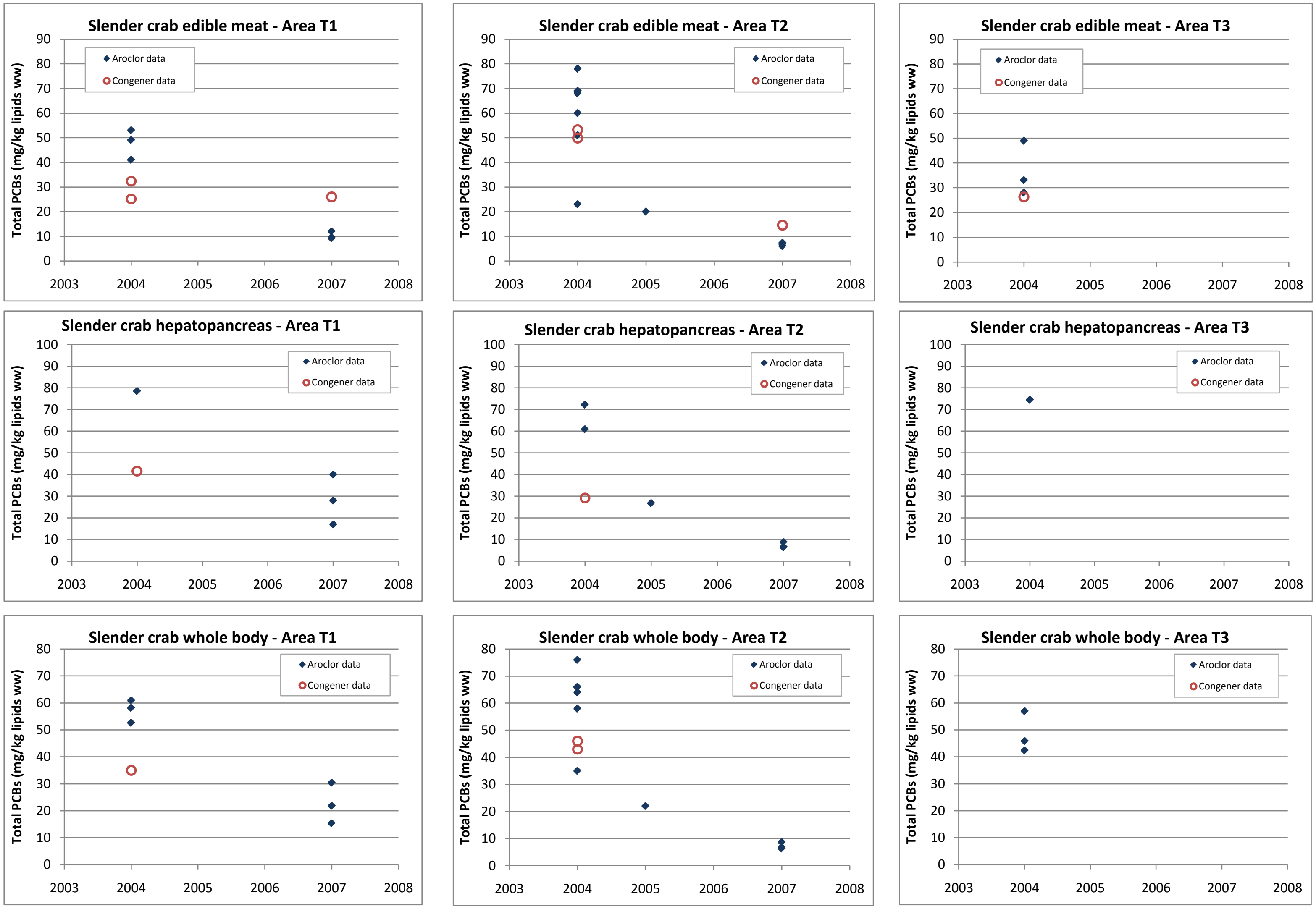


Figure E.4-12. Concentrations of lipid-normalized PCBs in slender crab samples collected in each of three tissue sampling areas (T1, T2, and T3; no slender crab were collected in Area T4)

E.5 Statistical Details for Selected Analyses

This section of the appendix presents output from statistical analyses conducted in Statistical Package for the Social Sciences (SPSS), Version 15.0, and Microsoft Excel® to support Sections 4 and 8 of the RI. This output is provided at the request of EPA to allow a reader familiar with statistical methods involving linear modeling to review the raw output from analyses whose general results and conclusions are presented in Sections 4 and 8. This section also provides results of some additional analyses that were conducted to support the selection of analyses for the RI but were not presented in the RI. This section is intended to serve as a supplement to the RI and does not include textual discussion or explanation that might be needed by readers less familiar with linear modeling methods.

Tables E.5-1 through E.5-7 and Figures E.5-1 and E.5-2 provide the statistical output of tests described in Section 4 to evaluate differences among mean total PCB concentrations (sum of Aroclors in mg/kg ww) in the four sampling areas for whole-body English sole and shiner surfperch. Two-way Analyses of Variance (ANOVAs) were conducted with the factors year (2004, 2005, and 2007), area (T1 through T4) and year-by-area interaction to test for differences between areas across years and to test for differences in the direction of changes over time in tissue concentrations in the different areas. These tests were followed by *post hoc* Tukey honestly significant difference (HSD) multiple comparisons and one-way ANOVA testing for effects of area within year to identify differences between areas. Data were log(10) transformed and rankit transformed[5] (Conover 1980) to help homogenize variances in order to better meet the assumptions of the ANOVA and to determine which transformation had the most power to detect differences. Analyses were conducted for both wet-weight total PCB concentrations and lipid-normalized total PCB concentrations. Tables E.5-5 and E.5-6 present groups of areas with statistically homogenous mean total PCB concentrations based on the *post hoc* Tukey test for English sole and shiner surfperch, respectively. The Tukey test examines differences between areas averaged over years. Table E.5-7 presents p values from the one-way ANOVAs (within year) for English sole and shiner surfperch. In all tables, only the results of log-transformed data are presented except when conclusions about significance differed for rankit-transformed data, in which case results for both transformations are presented. The remaining tables and figures in this appendix (Tables E.5-8 through E.5-15; Figures E.5-3 through E.5-5) provide additional information

[5] The rankit transformation converts the rank of each sample value into the expected value of corresponding ranks in a sample from the standard normal distribution the same size as the data set. This transformation is commonly used to make data meet the assumptions of a statistical test and has the effect of making the statistical test nonparametric. See Conover (1980) for additional information.

related to the regressions presented in Section 8 (Section 8.3.2) to evaluate the relationship between arsenic and cPAH TEQ[6] concentrations in clam tissue and sediment.

Table E.5-1. Results of Levene's test for homogeneity of variance in two-way ANOVA of log(10)- and rankit-transformed total PCB and lipid-normalized PCB concentrations in whole-body English sole

Dependent Variable	F Statistic	df1	df2	Significance (p value)
Log[total PCBs (µg/kg ww)]	2.583	11	49	0.011
Log[total PCBs (µg/kg lipid)]	2.097	11	49	0.038
Rankit transformation of total PCBs (µg/kg ww)	1.552	11	49	0.144
Rankit transformation of total PCBs (µg/kg lipid)	1.137	11	49	0.355

Note: The Levene's test examines the null hypothesis that the error variance of the dependent variable is equal across groups using the following design: intercept+area+year+area*year. P value is the significance of differences among means within a group.

ANOVA – analysis of variance

df1 – degrees of freedom for numerator of F Test (number of groups being tested – 1)

df2 – degrees of freedom for denominator of F test (number of samples – number of groups)

PCB – polychlorinated biphenyl

ww – wet weight

[6] Total cPAHs were calculated by summing the products of concentrations and compound-specific PEFs for individual cPAH compounds, as discussed in detail in Appendix E, Section E.3.

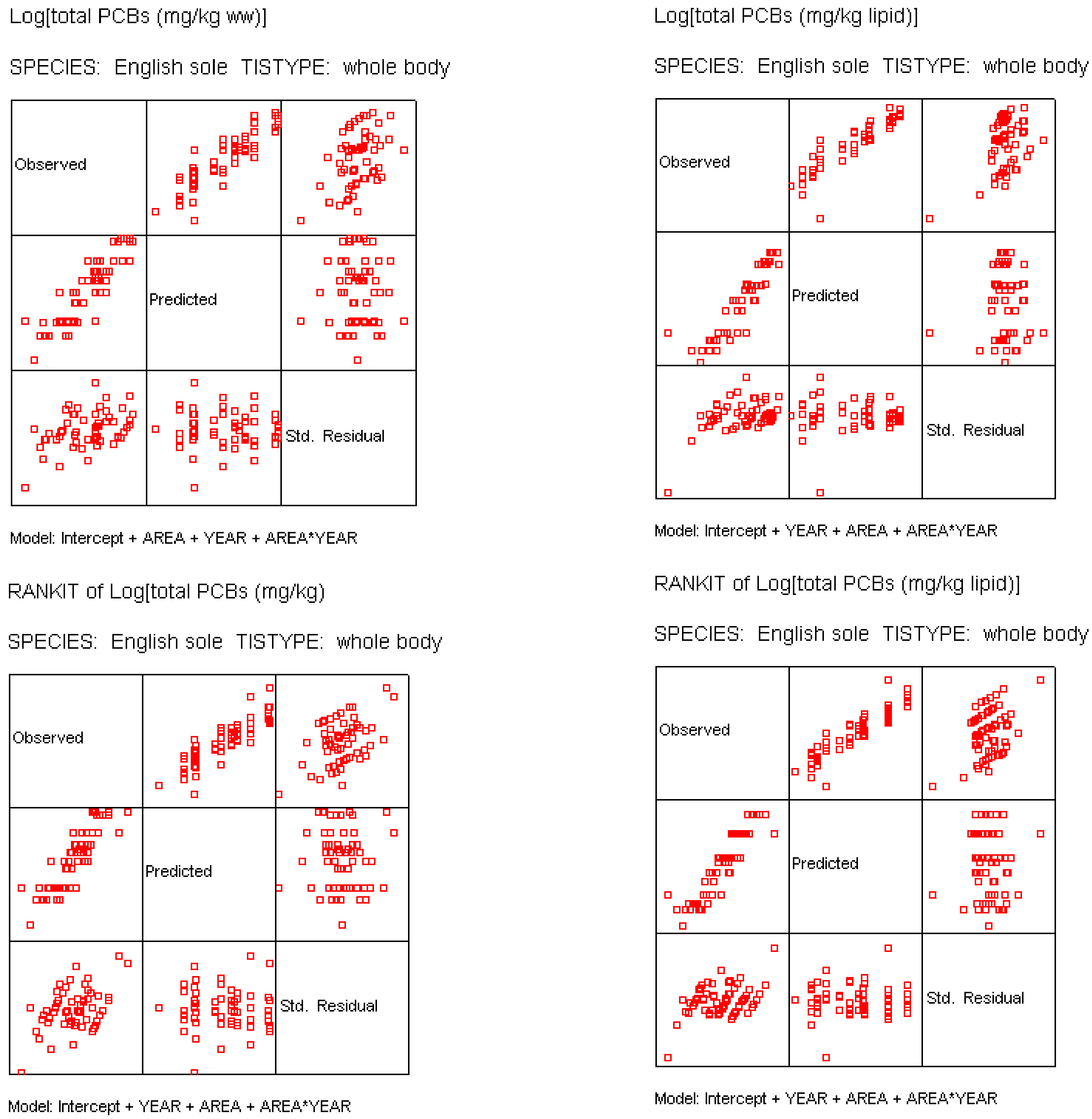


Figure E.5-1. Residual plots from two-way ANOVAs of log(10)- and rankit-transformed for total PCB and lipid-normalized PCB concentrations in whole-body English sole

Table E.5-2. Results of two-way ANOVA of log(10)- and rankit-transformed total PCB and lipid-normalized PCB concentrations in whole-body English sole

Dependent Variable	Source[a]	Type III Sum of Squares	DF	Mean Square	F Statistic	Significance (p value)
Log[total PCBs (µg/kg ww)]	corrected model	5.534	11	0.503	21.059	0.000
	intercept	435.890	1	435.890	18247.337	0.000
	area	0.477	3	0.159	6.655	0.001
	year	3.620	2	1.810	75.768	0.000
	area * year	0.195	6	0.032	1.357	0.251
	error	1.171	49	0.024		
	total	609.864	61			
	corrected total	6.704	60			
Log[total PCBs (µg/kg lipid)]	corrected model	5.645	11	0.513	21.314	0.000
	intercept	84.369	1	84.369	3504.223	0.000
	area	0.254	3	0.085	3.513	0.022
	year	3.567	2	1.783	74.072	0.000
	area * year	0.179	6	0.030	1.241	0.302
	error	1.180	49	0.024		
	total	127.139	61			
	corrected total	6.824	60			
Rankit transformation of total PCBs (µg/kg ww)	corrected model	49.714	11	4.519	16.436	0.000
	intercept	0.442	1	0.442	1.608	0.211
	area	3.980	3	1.327	4.825	0.005
	year	33.252	2	16.626	60.463	0.000
	area * year	1.649	6	0.275	.999	0.437
	error	13.474	49	0.275		
	total	63.335	61			
	corrected total	63.188	60			

Dependent Variable	Source[a]	Type III Sum of Squares	df	Mean Square	F Statistic	Significance (p value)
Rankit transformation of total PCBs (µg/kg lipid)	corrected model	54.201	11	4.927	22.841	0.000
	intercept	0.726	1	0.726	3.366	0.073
	area	3.342	3	1.114	5.164	0.004
	year	33.269	2	16.634	77.109	0.000
	area * year	2.755	6	0.459	2.128	0.067
	error	10.571	49	0.216		
	total	64.784	61			
	corrected total	64.772	60			

Note: P value is the significance of differences among means within a group.

[a] Corrected model and corrected total sums of squares are model and total sums of squares-corrected for the mean.

df – degrees of freedom

PCB – polychlorinated biphenyl

ww – wet weight

Table E.5-3. Results of Levene's test for homogeneity of variance in two-way ANOVA of log(10)- and rankit-transformed total PCB and lipid-normalized PCB concentrations in whole-body shiner surfperch

Dependent Variable	F Statistic	df1	df2	Significance (p value)
Log[total PCBs (µg/kg ww)]	2.804	11	56	0.006
Log[total PCBs (µg/kg lipid)]	2.363	11	56	0.018
Rankit transformation of total PCBs (µg/kg ww)	1.739	11	56	0.088
Rankit transformation of total PCBs (µg/kg lipid)	1.219	11	56	0.297

Note: The Levene's test tests the null hypothesis that the error variance of the dependent variable is equal across groups using the following design: intercept+ area+year+area*year. P value is the significance of differences among means within a group.

df1 – degrees of freedom for numerator of F Test (number of groups being tested – 1)

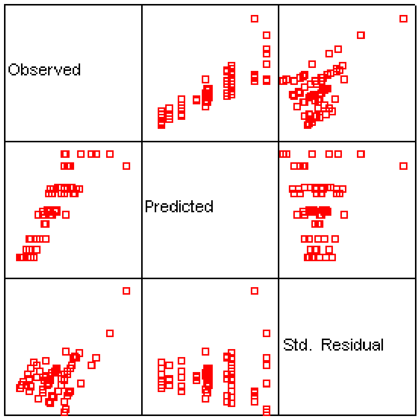
df2 – degrees of freedom for denominator of F test (number of samples – number of groups)

PCB – polychlorinated biphenyl

ww – wet weight

Log[total PCBs (mg/kg ww)]

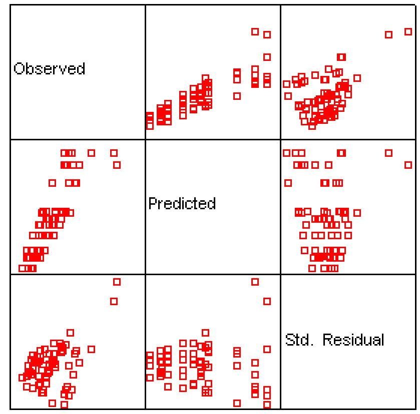
SPECIES: shiner surfperch TISTYPE: whole body



Model: Intercept + AREA + YEAR + AREA*YEAR

Log[total PCBs (mg/kg lipid)]

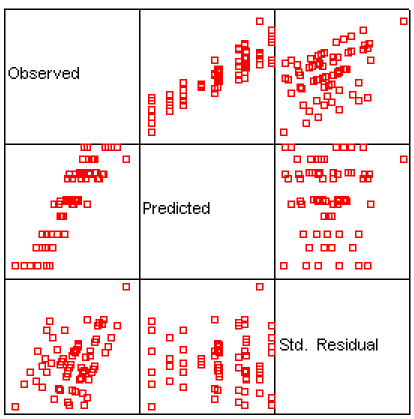
SPECIES: shiner surfperch TISTYPE: whole body



Model: Intercept + YEAR + AREA + AREA*YEAR

RANKIT of Log[total PCBs (mg/kg)

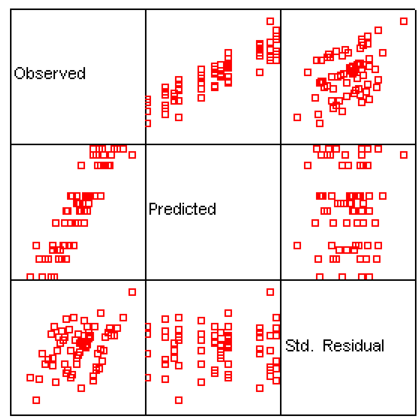
SPECIES: shiner surfperch TISTYPE: whole body



Model: Intercept + YEAR + AREA + AREA*YEAR

RANKIT of Log[total PCBs (mg/kg lipid)]

SPECIES: shiner surfperch TISTYPE: whole body



Model: Intercept + YEAR + AREA + AREA*YEAR

Figure E.5-2. Residual plots from two-way ANOVAs of log(10)- and rankit-transformed total PCB and lipid-normalized PCB concentrations in whole-body shiner surfperch

Table E.5-4. Results of two-way ANOVA using log(10)- and rankit-transformed total PCB and lipid-normalized PCB concentrations in whole-body shiner surfperch

Dependent Variable	Source[a]	Type III Sum of Squares	df	Mean Square	F Statistic	Significance (p value)
Log[total PCBs (µg/kg ww)]	corrected model	6.735	11	0.612	14.423	0.000
	intercept	567.637	1	567.637	13371.703	0.000
	area	1.910	3	0.637	14.999	0.000
	year	4.466	2	2.233	52.597	0.000
	area * year	0.260	6	0.043	1.020	0.422
	error	2.377	56	0.042		
	total	596.807	68			
	corrected total	9.112	67			
Log[total PCBs (µg/kg lipid)]	corrected model	6.837	11	0.622	15.686	0.000
	intercept	109.694	1	109.694	2768.253	0.000
	area	1.826	3	0.609	15.359	0.000
	year	4.871	2	2.435	61.461	0.000
	area * year	0.202	6	0.034	0.849	0.538
	error	2.219	56	0.040		
	total	125.215	68			
	corrected total	9.056	67			
Rankit transformation of total PCBs (µg/kg ww)	corrected model	55.171	11	5.016	21.194	0.000
	intercept	0.213	1	0.213	0.902	0.346
	area	14.866	3	4.955	20.939	0.000
	year	36.832	2	18.416	77.819	0.000
	area * year	2.729	6	0.455	1.922	0.093
	error	13.253	56	0.237		
	total	69.192	68			
	corrected total	68.423	67			
Rankit transformation of total PCBs (µg/kg lipid)	corrected model	51.695	11	4.700	20.859	0.000
	intercept	0.068	1	0.068	0.302	0.585
	area	14.529	3	4.843	21.495	0.000
	year	37.338	2	18.669	82.860	0.000
	area * year	1.509	6	0.252	1.117	0.365
	error	12.617	56	0.225		
	total	65.015	68			
	corrected total	64.313	67			

Note: P value is the significance of differences among means within a group.

[a] Corrected model and corrected total sums of squares are model and total sums of squares-corrected for the mean.

df – degrees of freedom

ww – wet weight

PCB – polychlorinated biphenyl

Table E.5-5. Results of *post hoc* Tukey test to identify groups of areas with statistically homogeneous mean concentrations of log(10)-transformed total PCBs in whole-body English sole (averaged over all years)

Area	n	Mean Concentration		
		Log(total PCB µg/kg ww)		Log(total PCB mg/kg lipid)
		Group 1 (p value = 0.176)	Group 2 (p value = 0.152)	Group 1 (p value = 0.181)
T4	7	3.0251		1.3051
T3	18	3.0989	3.0989	1.3942
T1	18	3.1512	3.1512	1.4269
T2	18		3.2297	1.4308

Note: P value is the significance of differences among means within a group.
n – number of samples
PCB – polychlorinated biphenyl
ww – wet weight

Table E.5-6. Results of *post hoc* Tukey test to identify groups of areas with statistically homogeneous mean concentrations of log(10)-transformed total PCBs in whole-body shiner surfperch (averaged over all years)

Area	n	Mean Concentration				
		Log(total PCB, µg/kg ww)		Log(total PCB, mg/kg lipid)		
		Group 1 (p value = 0.797)	Group 2 (p value = 0.205)	Group 1 (p value = 0.104)	Group 2 (p value = 0.171)	Group 3 (p value = 0.301)
T4	14	2.7419		1.0721		
T1	18	2.8070		1.2320	1.2320	
T2	18		3.0126		1.3752	1.3752
T3	18		3.1538			1.4964

Note: P value is the significance of differences among means within a group. n – number of samples
PCB – polychlorinated biphenyl
ww – wet weight

Table E.5-7. Significance of differences (p values) between areas within years based on separate, *post hoc* one-way ANOVA using Sidak's correction for multiple comparisons for whole-body English sole and shiner surfperch

Year	Areas Compared		Significance (p value)			
			Log(total PCBs µg/kg ww)		Log(total PCBs mg/kg lipid)	
			English Sole	Shiner Surfperch	English Sole	Shiner Surfperch
2004	T1	T2	1.00	0.33	0.96	0.69
		T3	0.26	**0.03**	0.83	0.13
		T4	**0.03**	0.27	**0.02**	**0.04**
	T2	T1	1.00	0.33	0.96	0.69
		T3	0.13	0.86	1.00	0.92
		T4	**0.01**	**0.00**	0.13	**0.00**
	T3	T1	0.26	**0.03**	0.83	0.13
		T2	0.13	0.86	1.00	0.92
		T4	0.73	**0.00**	0.24	**0.00**
	T4	T1	**0.03**	0.27	**0.02**	**0.04**
		T2	**0.01**	**0.00**	0.13	**0.00**
		T3	0.73	**0.00**	0.24	**0.00**
2005	T1	T2	0.92	0.49	1.00	0.40
		T3	0.77	0.26	0.50	0.29
		T4	0.38	0.94	0.17	0.66
	T2	T1	0.92	0.49	1.00	0.40
		T3	0.18	1.00	0.57	1.00
		T4	0.07	0.12	0.20	0.02
	T3	T1	0.77	0.26	0.50	0.29
		T2	0.18	1.00	0.57	1.00
		T4	0.97	0.05	0.94	**0.02**
	T4	T1	0.38	0.94	0.17	0.66
		T2	0.07	0.12	0.20	**0.02**
		T3	0.97	**0.05**	0.94	**0.02**

Year	Areas Compared		Significance (p value)			
			Log(total PCBs µg/kg ww)		Log(total PCBs mg/kg lipid)	
			English Sole	Shiner Surfperch	English Sole	Shiner Surfperch
2007	T1	T2	0.71	0.47	0.89	0.99
		T3	0.59	**0.00**	0.46	0.07
		T4	0.73	0.99	0.98	0.99
	T2	T1	0.71	0.47	0.89	0.99
		T3	1.00	0.22	0.99	0.26
		T4	0.25	0.95	0.77	0.81
	T3	T1	0.59	**0.00**	0.46	0.07
		T2	1.00	0.22	0.99	0.26
		T4	0.21	0.05	0.53	**0.03**
	T4	T1	0.73	0.99	0.98	0.99
		T2	0.25	0.95	0.77	0.81
		T3	0.21	0.05	0.53	**0.03**

Note: P value is the significance of differences among means within a group. ANOVA – Analysis of Variance
PCB – polychlorinated biphenyl
ww – wet weight
Bold identifies significant p values (i.e., p value < 0.05).

Table E.5-8. Clam tissue and sediment arsenic data used for regressions in Table 8-15 of the main body of the RI

Area	Year	Concentration by Sample Type: Clam Tissue (inorganic arsenic mg/kg ww)[a]	Intertidal Sediment (total arsenic mg/kg dw)[b]	Buffer Sediment (total arsenic mg/kg dw)[c]	Co-Located Sediment (total arsenic mg/kg dw)[a, d]
C1	2004	0.132	7.9	11	3.53
C2-1	2004	0.648	6	7.8	5.79
C3-1	2004	0.885	9	11	4.63
C4	2004	3.27	51	35	49.00
C5	2004	0.795	4.9	8.9	4.72
C6	2004	1.85	7	7.9	5.52
C7	2004	2.11	11	13	6.80
C9	2004	0.233	5.8	7.3	3.94
C1	2007	0.690	7.9	11	4.884
C2-1	2007	2.75	6	7.8	4.53
C2-2	2007	1.73	6	7.8	3.569
C3-1	2007	2.22	9	11	5.303
C3-2	2007	1.58	9	11	5.274
C4	2007	6.65	51	35	172.18
C5	2007	1.82	4.9	8.9	14.073
C6	2007	4.41	7	7.9	22.404
C7	2007	6.40	11	13	10.092
C8	2007	4.10	14	13	27.715
C9	2007	2.78	5.8	7.3	5.622
C10-1	2007	2.68	11	10	37.473
C10-2	2007	2.08	11	10	7.66
C11	2007	1.37	8.4	8.8	22.308
C12	2007	11.3	410	310	67.63

[a] Clam tissue sampling locations are shown on Map 8-1 (in the map folio), as are the co-located sediment exposure areas over which SWACs were calculated.

[b] Intertidal sediment refers to sediment collected from the intertidal areas where clams were collected.

[c] Buffer sediment refers to sediment collected from larger areas that surround the intertidal areas (approximately two times the intertidal area itself).

[d] Co-located sediment refers to sediment collected from the actual locations where clams were collected.

dw – dry weight

ww – wet weight

Table E.5-9. Regression results for inorganic arsenic in clam tissue vs. log(10)-transformed total arsenic in co-located sediment in Table 8-15 of the main body of the RI (2004 data only)

Model Summary

R	R Square	Adjusted R Square	Std Error of the Estimate
0.872	0.761	0.721	0.57090

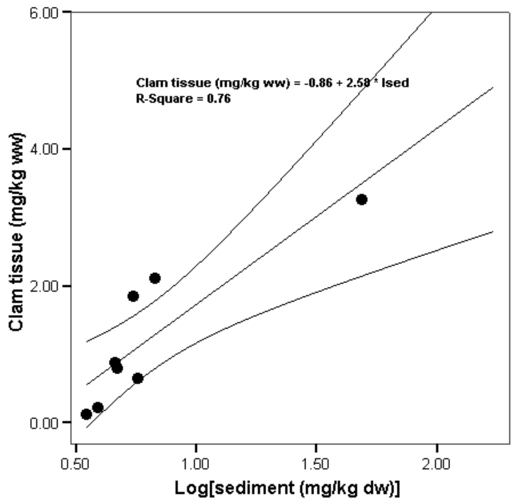
ANOVA

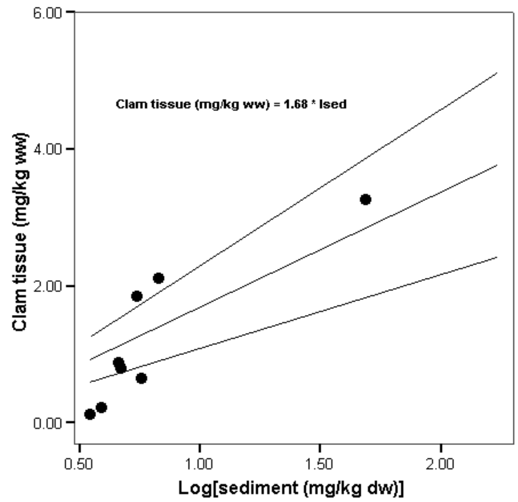
Model Component	Sum of Squares	df	Mean Square	F Statistic	Significance (p value)
Regression	6.211	1	6.211	19.055	.005
Residual	1.956	6	0.326		
Total	8.166	7			

Coefficients

Variable	Unstandardized Coefficients		Standardized Coefficients	T Statistic	Significance (p value)	95% Confidence Interval for B	
	B	Std Error	Beta			Lower Bound	Upper Bound
Constant (intercept)	-0.856	0.521		-1.643	0.152	-2.130	0.419
Log[sediment (µg/kg dw)] (slope)	2.576	0.590	0.872	4.365	0.005	1.132	4.019

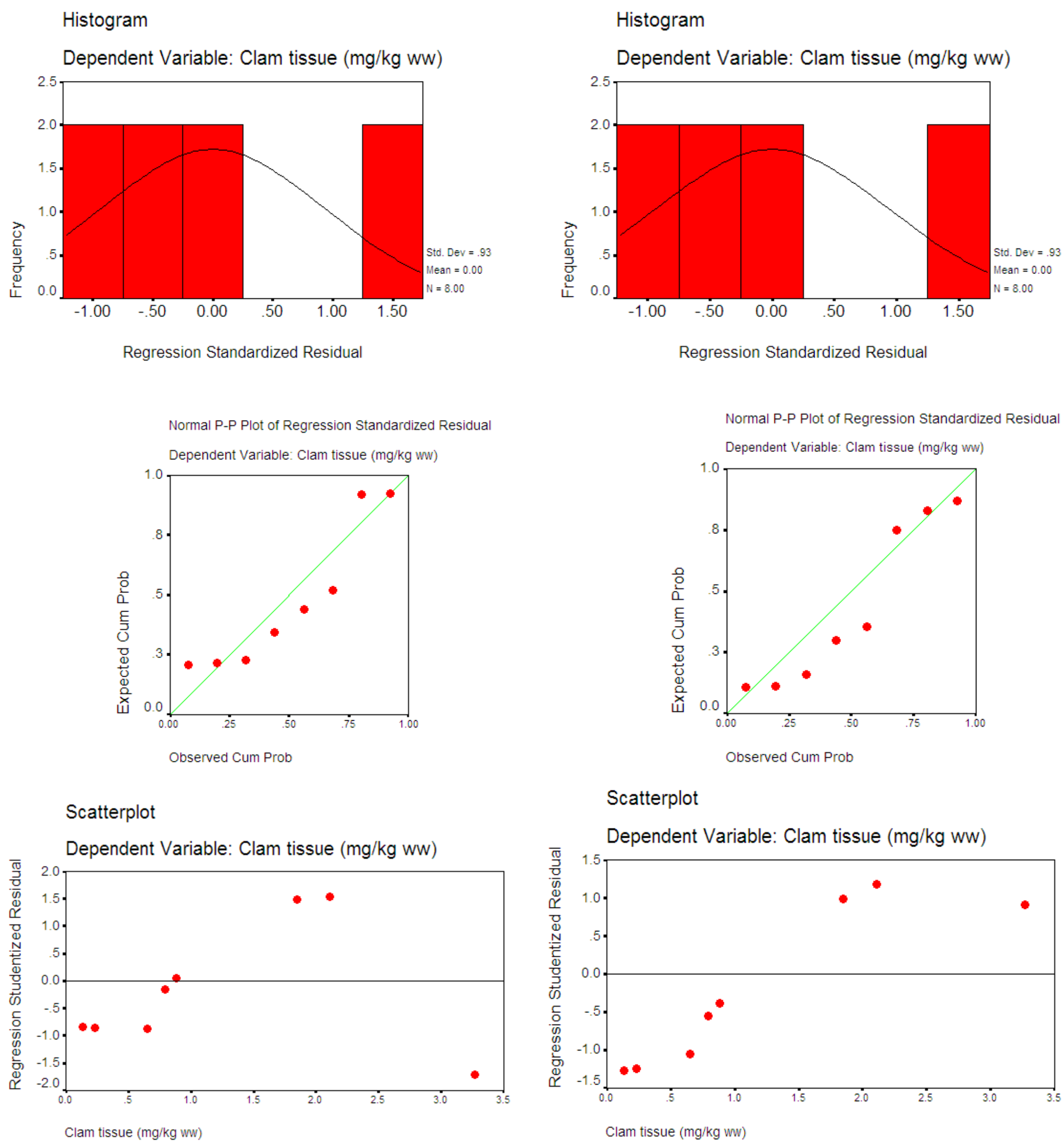
Note: P value is the significance of differences among means within a group.
ANOVA – analysis of variance
B – coefficient of intercept or slope
df1 – degrees of freedom for numerator
df2 – degrees of freedom for denominator
R – correlation coefficient
R square – coefficient of determination





Note: Graphs demonstrate effect of removing non significant intercept from previous regression on fit at lower sediment concentrations.

Figure E.5-3. Regression of inorganic arsenic in clam tissue vs. log(10)-transformed total arsenic in co-located sediment regression (2004 data only) with (left) and without (right) intercept



Note: Plots on left correspond to regression including intercept; plots on right correspond to regression through origin.

Figure E.5-4. Regression residuals for inorganic arsenic in clam tissue vs. log(10)-transformed total arsenic in co-located sediment regression (2004 data only): histogram, P-P plot, and scatter plot of regression residuals vs. predicted tissue values using the Shapiro-Wilk normality test

Table E.5-10. Shapiro-Wilk test for normality of residuals in Figure E.5-2, full regression (not through origin)

Residual	Statistic	df	Significance (p value)
Standardized residual	0.805	8	0.032
Studentized residual	0.891	8	0.237

Note: P value is the significance of differences among means within a group.
df – degrees of freedom

Table E.5-11. Regression results for inorganic arsenic in clam tissue vs. log(10)-transformed total arsenic in co-located sediment in Table 8-15 in the main body of the RI: 2004 and 2007 data

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.713	0.508	0.484	1.82911

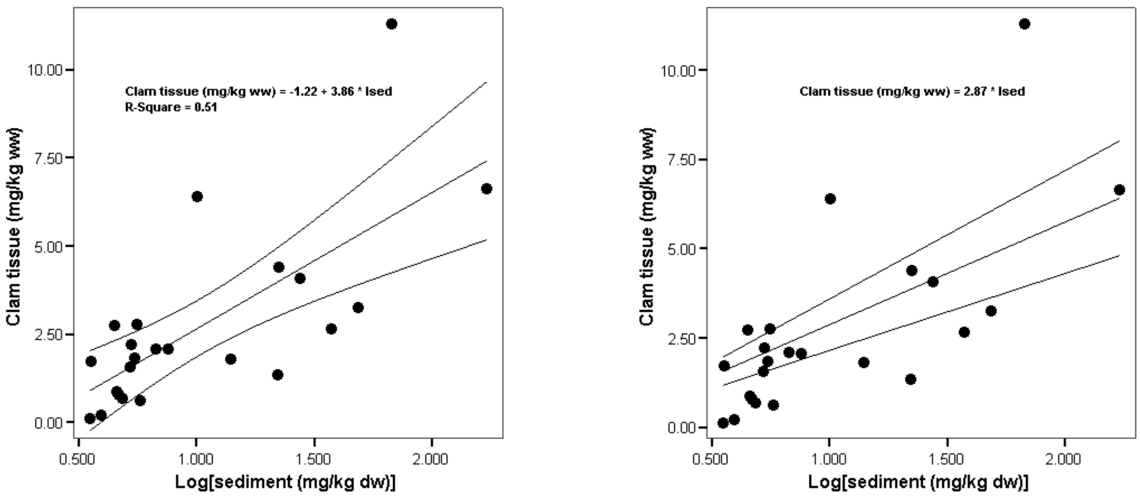
ANOVA

Model Component	Sum of Squares	df	Mean Square	F Statistic	Significance (p value)
Regression	72.484	1	72.484	21.665	0.000
Residual	70.259	21	3.346		
Total	142.743	22			

Coefficients

Variable	Unstandardized Coefficients		Standardized Coefficients	T Statistic	Significance (p value)	95% Confidence Interval for B	
	B	Std Error	Beta			Lower Bound	Upper Bound
Constant (Intercept)	-1.217	0.927		-1.312	0.204	-3.145	0.711
Log[sediment (mg/kg dw)]	3.863	0.830	0.713	4.655	0.000	2.137	5.588

Note: P value is the significance of differences among means within a group.
ANOVA – analysis of variance
B – coefficient of intercept or slope
df1 – degrees of freedom for numerator
df2 – degrees of freedom for denominator
R – correlation coefficient
R square – coefficient of determination



Note; Graphs demonstrate effect of removing non-significant intercept from previous regression on fit at lower sediment concentrations.

Figure E.5-5. Regression of inorganic arsenic in clam tissue vs. log(10)-transformed total arsenic in co-located sediment regression (2004 and 2007) with (left) and without (right) intercept

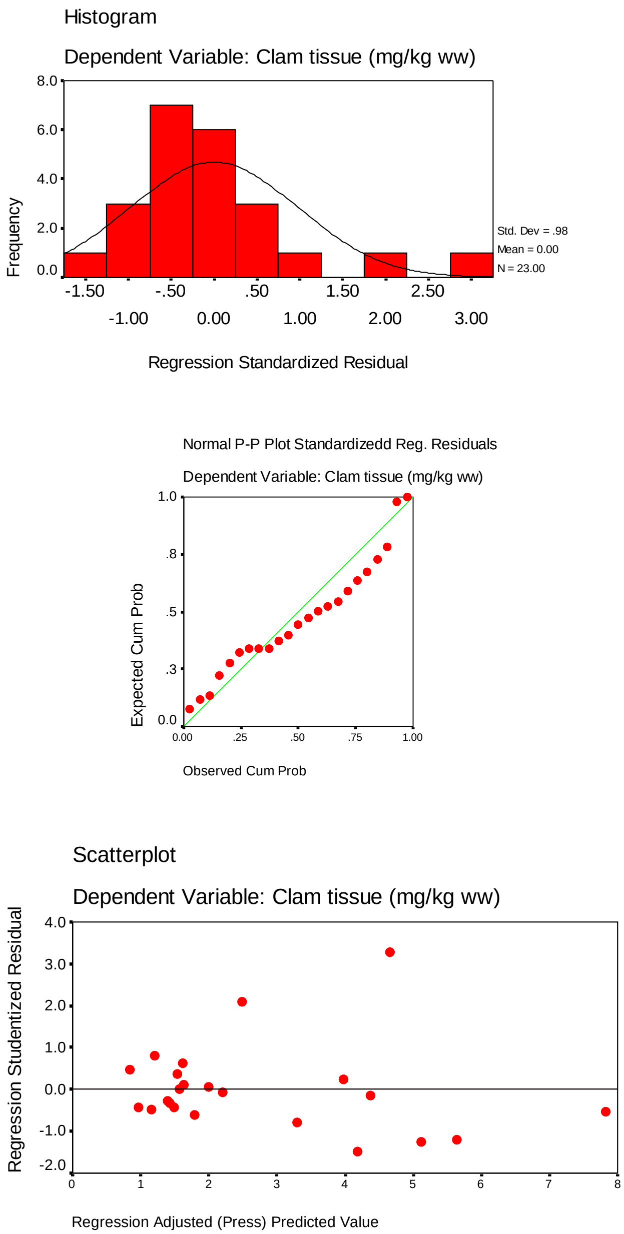


Figure E.5-6. Plots of regression residuals for inorganic arsenic in clam tissue vs. log(10)-transformed total arsenic in co-located sediment regression 2004 to 2007: histogram, P-P plot, and scatter plot of regression residuals vs. predicted tissue values

Table E.5-12. Shapiro-Wilk test of normality of residuals in Figure E.5-4, regression

Residual	Shapiro-Wilk		
	Statistic	df	Significance (p value)
Standardized residual	0.873	23	0.007
Studentized residual	0.864	23	0.005

Note: P value is the significance of differences among means within a group.
df – degrees of freedom

Table E.5-13. Clam tissue and sediment cPAH data used for regressions in Table 8-19 in the main body of the RI

Location	Concentration by Sample Type			
	Clam Tissue (µg/kg ww)[a]	Intertidal Sediment (µg/kg dw)[b]	Buffer Sediment (µg/kg dw)[c]	Co-Located Sediment (µg/kg dw)[a, d]
C2-1	6.8	270	340	220
C10-2	7.6	350	240	190
C10-1	8.3	350	240	290
C2-2	9.3	270	340	34
C3-2	9.7	680	610	110
C6	10	70	80	64
C3-1	11	680	610	130
C1	12	260	370	23
C4	13	500	570	260
C9	14	80	140	63
C7-2	18	1,020	1,680	170
C5	23	320	320	520
C7-1	24	1,020	1,680	220
C8	44	5,170	1,680	7,100

Note: Total cPAHs were calculated by summing the products of concentrations and compound-specific PEFs for individual cPAH compounds, as discussed in detail in Appendix E, Section E.3.

[a] Clam tissue sampling locations are shown on Map 8-2 (in the map folio), as are the co-located sediment exposure areas over which SWACs were calculated.

[b] Intertidal sediment refers to sediment collected from the intertidal areas where clams were collected.

[c] Buffer sediment refers to sediment collected from larger areas that surround the intertidal areas (approximately two times the intertidal area itself).

[d] Co-located sediment refers to sediment collected from the actual locations where clams were collected.

cPAH – carcinogenic polycyclic aromatic hydrocarbon
dw – dry weight

Table E.5-14. Regression results for cPAH in clam tissue vs. log(10)-transformed cPAH in co-located sediment in Table 8-19 in the main body of the RI

Model Summary

R	R Square	Adjusted R Square	Std Error of the Estimate	Change Statistics			
				F Statistic	df1	df2	Sig F Change
0.771	0.594	0.560	6.575	17.546	1	12	.001

ANOVA

Model Component	Sum of Squares	df	Mean Square	F Statistic	Significance (p value)
Regression	758.607	1	758.607	17.546	0.001
Residual	518.828	12	43.236		
Total	1277.435	13			

Coefficients

Variable	Unstandardized Coefficients		Standardized Coefficients	T Statistic	Significance (p value)	95% Confidence Interval for B	
	B	Std Error	Beta			Lower Bound	Upper Bound
Constant (intercept)	-13.542	7.048		-1.921	0.079	-28.899	1.815
Log[sediment (µg/kg dw)] (slope)	12.792	3.054	0.771	4.189	0.001	6.138	19.445

Note: Total cPAHs were calculated by summing the products of concentrations and compound-specific PEFs for individual cPAH compounds, as discussed in detail in Appendix E, Section E.3. P value is the significance of differences among means within a group.

ANOVA – analysis of variance

B – coefficient of intercept or slope

cPAH – carcinogenic polycyclic aromatic hydrocarbon

df1 – degrees of freedom for numerator

df2 – degrees of freedom for denominator

R – correlation coefficient

R square – coefficient of determination

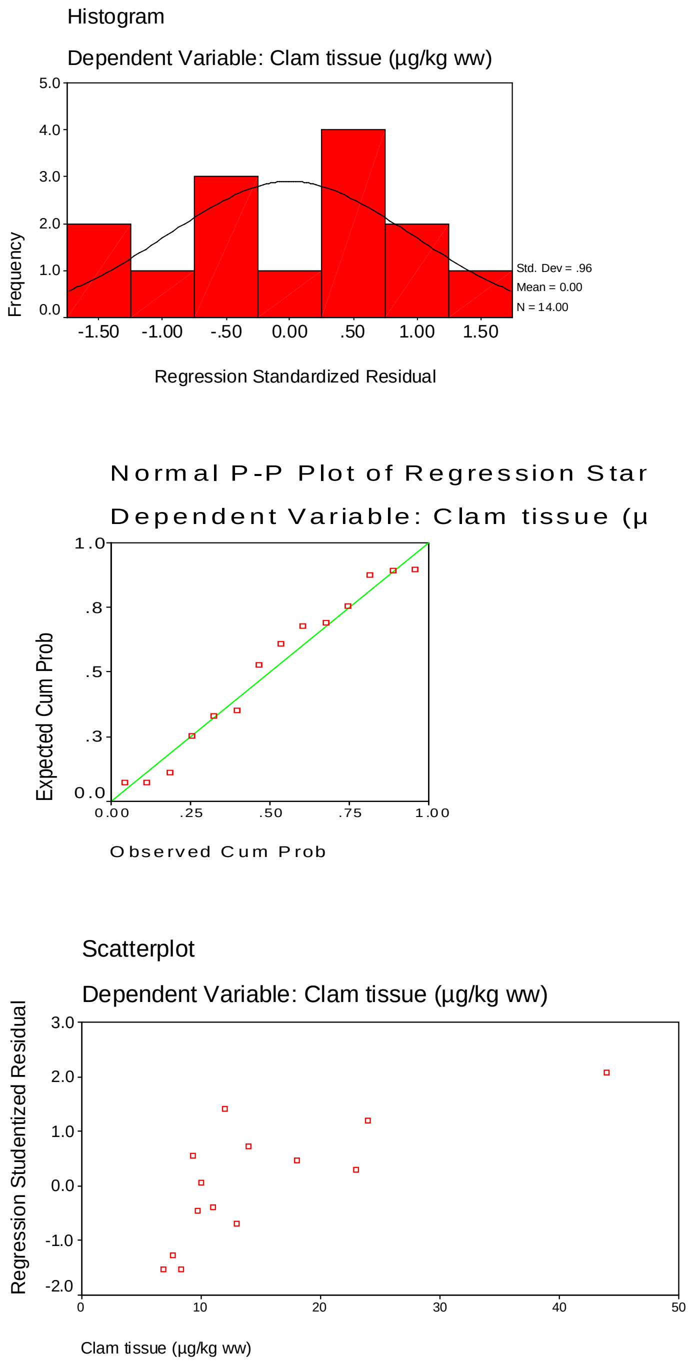


Figure E.5-7. Regression residuals for cPAH in clam tissue vs. log(10)-transformed cPAH in co-located sediment regression: histogram, P-P plot, and scatter plot of regression residuals vs. predicted tissue values

Table E.5-15. Shapiro-Wilk test for normality of residuals in Figure E.5-5

RESIDUAL	STATISTIC	DF	SIGNIFICANCE (p value)
Standardized residual	0.938	14	0.398
Studentized residual	0.938	14	0.397

Note: Total cPAHs were calculated by summing the products of concentrations and compound-specific PEFs for individual cPAH compounds, as discussed in detail in Appendix E, Section E.3. P value is the significance of differences among means within a group.

df – degrees of freedom

REFERENCES

Conover WJ. 1980. Practical nonparametric statistics. 2nd ed. John Wiley & Sons, New York, NY.

E.6 Summary Data Tables

Acronyms and Abbreviations for All Tables

Acronym	Definition
2LAET	second lowest apparent effects threshold
BHC	hexachlorocyclohexane
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSL	cleanup screening level
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
dw	dry weight
HPAH	high-molecular-weight polycyclic aromatic hydrocarbon
ID	identification
LAET	lowest apparent effects threshold
LPAH	low-molecular-weight polycyclic aromatic hydrocarbon
na	not analyzed or not applicable
nc	not calculated
nd	not detected
nr	not reported
nv	no value
OC	organic carbon
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
RL	reporting limit
SD	storm drain
SMS	Washington State Sediment Management Standards
SQS	sediment quality standard
SVOC	semivolatile organic compound
TOC	total organic carbon
VOC	volatile organic compound
WQS	Washington State Water Quality Standard

Data Qualifiers

C	concentration represents co-elution
J	estimated concentration
M	calculated result
N	tentative identification
U	not detected at reporting limit shown
UJ	not detected at estimated reporting limit shown

Notes for All Tables

Calculated mean concentration is the average of detected concentrations and one-half the RL concentration for non-detected results.

Reporting limits are based only on non-detect samples.

Results for PCB congeners that co-elute with each other are attributed to the PCB congener with the lowest IUPAC number. For example, PCB-129, PCB-160, and PCB-163 co-elute with each other. The concentration for this trio of PCB congeners is shown with PCB-129. For PCB-160 and PCB-163, C129 is shown rather than a concentration to indicate that these PCB congeners co-elute with PCB-129. A similar convention is used for other co-eluting PCB congeners.

E.6.1 Surface Sediment

Table E.6.1-1. Summary statistics for surface sediment data

Chemical	Detection Frequency		Concentration						Maximum Detect Location
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit	
Metals and trace elements									
Aluminum	447/447	100	2,800	110,000	19,000	19,000	na	mg/kg dw	SS-SWY01 SS-SWY02
Antimony	139/593	23	0.09 J	122 J	5	4	0.2 – 31	mg/kg dw	B3b
Arsenic	794/852	93	1.2	1,100	12	17	3.1 – 31	mg/kg dw	LDW-SS114
Barium	414/414	100	9.40	7,400	73	130	na	mg/kg dw	DR027
Beryllium	447/457	98	0.10	0.730	0.4	0.4	0.10 – 0.70	mg/kg dw	DUD203
Cadmium	584/838	70	0.030 J	120	0.5	1	0.04 – 2.5	mg/kg dw	SS-SWY01
Calcium	414/414	100	1,800	49,000	6,000	6,900	nc	mg/kg dw	DR004
Chromium	850/850	100	4.8	1,100 J	30	40	na	mg/kg dw	SS-SWY06
Chromium VI	1/4	25	14 J	14 J	14	6.1	1.1 – 10	mg/kg dw	K-10
Cobalt	597/597	100	2.82	140	9	9	na	mg/kg dw	SD-04115
Copper	852/852	100	5	12,000 J	50	100	na	mg/kg dw	SS-SWY01 SS-SWY02
Iron	445/445	100	8,100	160,000	28,000	28,000	na	mg/kg dw	SS-SWY06
Lead	852/852	100	2	23,000	40	100	na	mg/kg dw	SS-SWY02
Magnesium	424/424	100	2,000	17,000	7,300	7,000	na	mg/kg dw	SD-04913 DR124
Manganese	442/442	100	78.0	3,300	310	340	na	mg/kg dw	SS-SWY02
Mercury	746/868	86	0.021	4.6 J	0.2	0.2	0.02 – 0.10	mg/kg dw	SD-04408
Methylmercury	20/20	100	0.040 J	5.6	0.76	1.1	na	µg/kg dw	NFK004A
Molybdenum	243/302	80	0.3	75	1	3	0.3 – 5.3	mg/kg dw	LDW-SS48
Nickel	812/812	100	5	910	20	30	na	mg/kg dw	SS-SWY06
Potassium	425/425	100	380	11,000	2,400	2,300	na	mg/kg dw	DR209
Selenium	275/670	41	0.2 J	28	6	5	0.20 – 40	mg/kg dw	DR018
Silver	499/823	61	0.020	270	0.4	1	0.046 – 5	mg/kg dw	SS-SWY02
Sodium	414/414	100	580	23,000	9,900	9,400	na	mg/kg dw	DR292
Thallium	319/674	47	0.010 J	32 J	0.1	3	0.030 – 53	mg/kg dw	DUD_2C
Tin	161/249	65	1.0 J	350	5.0	6.0	1.0 – 8	mg/kg dw	DR254
Vanadium	597/597	100	15	150	57	58	na	mg/kg dw	SD-04115
Zinc	849/849	100	16	9,700	110	190	na	mg/kg dw	SS-SWY01
Organometals									

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit	Maximum Detect Location
Monobutyltin as ion	90/119	76	0.12 J	120	8.3	14	1.0 – 85	µg/kg dw	B3b
Dibutyltin as ion	108/149	72	0.39 J	560	11	22	1.0 – 49	µg/kg dw	LDW-SS46
Tributyltin as ion	142/158	90	0.28 J	3,000	28	90	1.0 – 5.3	µg/kg dw	LDW-SS46
Tetrabutyltin as ion	15/118	13	0.27 J	58	2.0	3.3	0.60 – 20	µg/kg dw	B1b
Butyltin (total)	29/37	78	70.0	600	190	180	15 – 24	µg/kg dw	DUD027
Alkylated PAHs									
C1-Chrysenes	20/20	100	12	2,100	57	220	na	µg/kg dw	B3b
C1-Dibenzothiophenes	14/20	70	4.6 J	59	12	13	5.0 – 5.5	µg/kg dw	B4a
C1-Fluoranthene/Pyrene	19/20	95	18	4,900	100	490	4.9	µg/kg dw	B3b
C1-Fluorenes	10/20	50	4.5 J	150	6.1	14	5.0 – 7.8	µg/kg dw	B4a
C1-Phenanthrenes/ Anthracenes	20/20	100	8.0	1,700	38	180	na	µg/kg dw	B4a
C2-Chrysenes	20/20	100	8.1	680	51	94	na	µg/kg dw	B3b
C2-Dibenzothiophenes	15/20	75	4.3 J	190	12	24	5.0 – 5.4	µg/kg dw	B4a
C2-Fluorenes	16/20	80	3.4 J	250	11	27	5.0 – 5.4	µg/kg dw	B4a
C2-Naphthalenes	20/20	100	6.2	100	17	21	na	µg/kg dw	B4a
C2-Phenanthrenes/ Anthracenes	20/20	100	8.5	840	35	100	na	µg/kg dw	B4a
C3-Chrysenes	20/20	100	7.3	370	41	63	na	µg/kg dw	B3b
C3-Dibenzothiophenes	16/20	80	7.6	150	21	29	4.9 – 5	µg/kg dw	B3b
C3-Fluorenes	18/20	90	3.9 J	220	15	33	5.0	µg/kg dw	B4a
C3-Naphthalenes	20/20	100	4.4 J	310	26	42	na	µg/kg dw	B4a
C3-Phenanthrenes/ Anthracenes	20/20	100	6.8	420	32	71	na	µg/kg dw	B4a
C4-Chrysenes	17/20	85	7.7	130	21	30	4.9 – 5.0	µg/kg dw	B3b
C4-Naphthalenes	20/20	100	6.0	250	19	34	na	µg/kg dw	B4a
C4-Phenanthrenes/ Anthracenes	20/20	100	5.6	180	29	43	na	µg/kg dw	B3b
PAHs									
1-Methylnaphthalene	23/64	36	1.9 J	110	5.9	26	60 – 110	µg/kg dw	LDW-SS312
2-Chloronaphthalene	0/781	0	nd	nd	nd	29	8.6 – 2,000	µg/kg dw	nd
2-Methylnaphthalene	139/818	17	1.0 J	3,300	30	40	1.0 – 2,000	µg/kg dw	LDW-SS35
Acenaphthene	304/828	37	1.0 J	5,200	40	70	1.8 – 2,000	µg/kg dw	LDW-SS35
Acenaphthylene	128/818	16	1.3 J	500	30	31	1.8 – 2,000	µg/kg dw	LDW-SS312
Anthracene	576/828	70	2.0	10,000	84	100	13 – 2,000	µg/kg dw	LDW-SS95
Benzo(a)anthracene	748/828	90	7.3 J	8,400	200	320	6.4 – 200	µg/kg dw	T117-SE-37-G
Benzo(a)pyrene	747/822	91	6.5	7,900	200	310	6.4 – 350	µg/kg dw	T117-SE-37-G
Benzo(b)fluoranthene	755/822	92	6.6 J	8,200	300	400	6.4 – 450	µg/kg dw	T117-SE-37-G
Benzo(e)pyrene	20/20	100	16	1,300	69	210	na	µg/kg dw	B4a B3b

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit	Maximum Detect Location
Benzo(g,h,i)perylene	682/823	83	6.1	3,800	100	200	13 – 2,000	µg/kg dw	C8
Benzo(k)fluoranthene	728/822	89	8.4	8,800	200	300	19 – 450	µg/kg dw	T117-SE-37-G
Benzofluoranthenes (total-calc'd)	757/822	92	6.6 J	17,000	460	740	nc	µg/kg dw	T117-SE-37-G
Chrysene	773/828	93	12	7,700	300	500	18 – 170	µg/kg dw	T117-SE-37-G
Dibenzo(a,h)anthracene	436/828	53	1.6 J	1,500	50	60	1.0 – 2,000	µg/kg dw	C8
Dibenzofuran	248/827	30	1.0 J	4,200	30	50	1.7 – 2,000	µg/kg dw	T117-SE-37-G
Fluoranthene	797/828	96	18	24,000	400	900	19 – 340	µg/kg dw	T117-SE-37-G
Fluorene	382/828	46	1.4 J	6,800	43	79	1.8 – 2,000	µg/kg dw	LDW-SS95
Indeno(1,2,3-cd)pyrene	726/823	88	6.5	4,300	100	200	6.4 – 1,600	µg/kg dw	C8
Naphthalene	152/818	19	3.0 J	5,300	35	49	1.0 – 2,000	µg/kg dw	LDW-SS35
Perylene	20/20	100	9.0	350	47	67	na	µg/kg dw	B3b
Phenanthrene	759/828	92	7.1	28,000	200	400	18 – 200	µg/kg dw	T117-SE-37-G
Pyrene	788/828	95	19	16,000	400	700	18 – 170	µg/kg dw	DR044 T117-SE-37-G
Total HPAH	803/828	97	20	85,000	2,000	4,000	nc	µg/kg dw	T117-SE-37-G
Total LPAH	763/828	92	9.1	44,000	300	700	nc	µg/kg dw	LDW-SS95
Carcinogenic PAHs - Mammal	780/828	94	9.7 J	11,000	300	500	9.0 – 130	µg/kg dw	T117-SE-37-G
Total PAH	805/828	97	20	128,000	2,000	4,000	nc	µg/kg dw	T117-SE-37-G
Phthalates									
Bis(2-ethylhexyl)phthalate	674/832	81	5.4	14,000	300	600	15 – 1,500	µg/kg dw	DUD005
Butyl benzyl phthalate	425/822	52	2.0	7,100	40	80	1.8 – 2,000	µg/kg dw	SD-04116
Diethyl phthalate	41/832	5	2.0 J	150	10	30	1.8 – 2,000	µg/kg dw	SD-322-S
Dimethyl phthalate	156/822	19	2.0 J	200	20	20	1.8 – 2,000	µg/kg dw	R23
Di-n-butyl phthalate	189/822	23	3.0 J	3,800	40	60	1.8 – 2,000	µg/kg dw	SD-04115
Di-n-octyl phthalate	49/832	6	1.8	1,000	40	38	1.8 – 2,000	µg/kg dw	LDW-SS70
Other SVOCs									
1,2,4-Trichlorobenzene	5/816	1	1.6 J	72 J	2.9	20	0.40 – 2,000	µg/kg dw	DUD027
1,2-Dichlorobenzene	17/816	2	1.3 J	520 J	2.4	20	0.40 – 2,000	µg/kg dw	DR008
1,2-Diphenylhydrazine	0/107	0	nd	nd	nd	64	15 – 880	µg/kg dw	nd
1,3-Dichlorobenzene	3/805	<1	2.0 J	11 J	2.5	22	0.40 – 2,000	µg/kg dw	DUD012
1,4-Dichlorobenzene	39/816	5	1.7 J	1,600 J	7.3	20	0.20 – 2,000	µg/kg dw	DUD027
2,4,5-Trichlorophenol	0/771	0	nd	nd	nd	130	8.6 – 4,900	µg/kg dw	nd
2,4,6-Trichlorophenol	0/771	0	nd	nd	nd	120	8.6 – 2,000	µg/kg dw	nd
2,4-Dichlorophenol	0/771	0	nd	nd	nd	79	8.6 – 2,000	µg/kg dw	nd
2,4-Dimethylphenol	5/813	1	6.1	290 J	17	33	6.0 – 2,000	µg/kg dw	DD-2
2,4-Dinitrophenol	0/757	0	nd	nd	nd	210	61 – 4,900	µg/kg dw	nd

Table E.6.1-1, cont.   Summary statistics for surface sediment data

Chemical	Detection Frequency		Concentration						Maximum Detect Location
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit	
2,4-Dinitrotoluene	0/771	0	nd	nd	nd	110	4.6 – 2,000	µg/kg dw	nd
2,6-Dinitrotoluene	0/771	0	nd	nd	nd	110	8.6 – 2,000	µg/kg dw	nd
2-Chlorophenol	0/771	0	nd	nd	nd	29	8.6 – 2,000	µg/kg dw	nd
2-Methylphenol	7/821	1	8.6	58 J	14	28	6.0 – 2,000	µg/kg dw	WQA8AVE
2-Nitroaniline	0/757	0	nd	nd	nd	110	18 – 4,900	µg/kg dw	nd
2-Nitrophenol	0/771	0	nd	nd	nd	99	8.6 – 3,200	µg/kg dw	nd
3,3'-Dichlorobenzidine	0/732	0	nd	nd	nd	120	31 – 2,000	µg/kg dw	nd
3-Nitroaniline	0/749	0	nd	nd	nd	130	18 – 4,900	µg/kg dw	nd
4,6-Dinitro-o-cresol	0/757	0	nd	nd	nd	200	61 – 4,900	µg/kg dw	nd
4-Bromophenyl phenyl ether	1/771	<1	31	31	31	29	8.6 – 2,000	µg/kg dw	LDW-SS23
4-Chloro-3-methylphenol	1/757	<1	6.4 J	6.4 J	6.4	70	8.6 – 2,000	µg/kg dw	C6
4-Chloroaniline	0/726	0	nd	nd	nd	80	8.6 – 2,000	µg/kg dw	nd
4-Chlorophenyl phenyl ether	0/771	0	nd	nd	nd	27	8.6 – 2,000	µg/kg dw	nd
4-Methylphenol	82/831	10	4.8 J	4,600 J	34	44	8.6 – 2,000	µg/kg dw	DUD207
4-Nitroaniline	0/745	0	nd	nd	nd	110	18 – 4,900	µg/kg dw	nd
4-Nitrophenol	0/757	0	nd	nd	nd	110	61 – 4,900	µg/kg dw	nd
Aniline	1/295	<1	13 J	13 J	13	33	18 – 290	µg/kg dw	B6b
Benzaldehyde	6/10	60	120 J	380	200	200	170	µg/kg dw	SB-4
Benzidine	0/7	0	nd	nd	nd	540	310 – 1,700	µg/kg dw	nd
Benzoic acid	70/822	9	54 J	4,500	220	200	13 – 3,000	µg/kg dw	NFK305
Benzyl alcohol	15/812	2	8.2 J	670	27	46	9.2 – 690	µg/kg dw	LDW-SS24
Biphenyl	20/20	100	0.86 J	33	3.0	4.5	na	µg/kg dw	B4a
bis(2-chloroethoxy)methane	1/771	<1	40	40	40	33	8.6 – 2,000	µg/kg dw	DR188
bis(2-chloroethyl)ether	0/771	0	nd	nd	nd	37	8.6 – 2,000	µg/kg dw	nd
bis(2-chloroisopropyl)ether	0/771	0	nd	nd	nd	34	8.6 – 2,000	µg/kg dw	nd
Caffeine	0/26	0	nd	nd	nd	160	6.8 – 2,000	µg/kg dw	nd
Caprolactam	1/10	10	27 J	27 J	27	520	830 – 1,500	µg/kg dw	SB-5
Carbazole	382/737	52	3.2 J	4,200	50	80	19 – 2,000	µg/kg dw	LDW-SS95
Coprostanol	42/102	41	260 J	50,000 J	770	1,000	21 – 2,000	µg/kg dw	DUD027
Dibenzothiophene	20/20	100	0.81 J	150	4.0	13	na	µg/kg dw	B4a
Hexachlorobenzene	46/819	6	0.4 J	95 J	1	10	0.11 – 2,000	µg/kg dw	LDW-SS68
Hexachlorobutadiene	0/818	0	nd	nd	nd	23	0.96 – 2,000	µg/kg dw	nd
Hexachlorocyclopentadiene	1/718	<1	100 J	100 J	100	110	32 – 2,000	µg/kg dw	DR009
Hexachloroethane	0/799	0	nd	nd	nd	33	1.5 – 2,000	µg/kg dw	nd
Isophorone	2/781	<1	26	430	230	31	8.6 – 2,000	µg/kg dw	SH-06
Methyl isobutyl ketone	0/41	0	nd	nd	nd	17	3.0 – 1,100	µg/kg dw	nd

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Median Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Maximum Detect Location
Nitrobenzene	0/771	0	nd	nd	nd	29	8.6 – 2,000	µg/kg dw	nd
N-Nitrosodimethylamine	0/335	0	nd	nd	nd	61	30 – 1,800	µg/kg dw	nd
N-Nitroso-di-n-propylamine	0/771	0	nd	nd	nd	42	8.6 – 2,000	µg/kg dw	nd
N-Nitrosodiphenylamine	23/818	3	6.5	230	8.0	27	1.8 – 2,000	µg/kg dw	DUD021
Pentachlorophenol	12/785	2	14 J	410	100	96	7.6 – 4,900	µg/kg dw	LDW-SSB4a
Phenol	257/831	31	10 J	2,800	70	90	7.3 – 790	µg/kg dw	B8a
Pyridine	0/12	0	nd	nd	nd	440	160 – 2,400	µg/kg dw	nd
Retene	9/16	56	99 J	310 J	230	320	290 – 2,000	µg/kg dw	SB-3
Polychlorinated biphenyls									
PCB-018	72/235	31	1,000 J	170,000 J	2,000	2,700	1,000 – 24,000	ng/kg dw	DR178
PCB-028	137/249	55	1,000 J	160,000 J	2,000	3,700	1,000 – 8,000	ng/kg dw	DR157
PCB-044	163/249	65	1,000 J	190,000 J	2,000	4,200	1,000 – 2,000	ng/kg dw	DR178
PCB-055	181/249	73	1,000 J	890,000 J	3,000	10,000	1,000 – 13,000	ng/kg dw	DR178
PCB-066	217/297	73	73.6	3,060,000	6,000	25,000	1,000 – 250,000	ng/kg dw	LDW-SS109
PCB-077	66/594	11	10.4	80,500	670	790	110 – 15,000	ng/kg dw	LDW-SS109
PCB-081	48/297	16	0.396 J	6,970	22.8	480	1,000 – 10,000	ng/kg dw	LDW-SS109
PCB-090	48/48	100	180 C	11,700,000 C	11,800	327,000	na	ng/kg dw	LDW-SS109
PCB-101	536/592	91	410 J	5,600,000 J	10,000	49,000	120 – 10,000	ng/kg dw	EIT070
PCB-105	431/590	73	61.4	3,660,000	3,000	13,000	120 – 19,000	ng/kg dw	LDW-SS109
PCB-110	310/345	90	220 J	14,500,000 C	8,000	83,000	120 – 6,600	ng/kg dw	LDW-SS109
PCB-113	48/48	100	C90	C90	na	na	na	na	na
PCB-114	53/297	18	2.75	207,000	210	1,400	1,000 – 12,000	ng/kg dw	LDW-SS109
PCB-115	48/48	100	C110	C110	na	na	na	na	na
PCB-118	490/593	83	154	12,000,000	5,600	40,000	120 – 8,300	ng/kg dw	LDW-SS109
PCB-123	48/297	16	2.79	138,000	191	1,290	1,000 – 31,000	ng/kg dw	LDW-SS109
PCB-126	56/593	9	0.758 J	7,980	40	380	100 – 5,000	ng/kg dw	LDW-SS109
PCB-128	293/541	54	350 J	620,000 J	3,000	7,600	130 – 13,000	ng/kg dw	EIT070
PCB-129	48/48	100	320 C	14,000,000 C	16,200	403,000	na	ng/kg dw	LDW-SS109
PCB-138	529/594	89	210 J	1,400,000	7,000	20,000	130 – 19,000	ng/kg dw	EIT070
PCB-153	541/591	92	258 C	9,090,000C	10,000	57,000	120 – 11,000	ng/kg dw	LDW-SS109
PCB-156	257/594	43	27.5 C	1,790,000 C	1,200	5,600	80 – 10,000	ng/kg dw	LDW-SS109
PCB-157	109/592	18	410	56,000	1,900	830	80 – 27,000	ng/kg dw	EIT070
PCB-160	48/48	100	C129	C129	na	na	na	na	na
PCB-163	48/48	100	C129	C129	na	na	na	na	na
PCB-167	84/297	28	10.6	515,000	1,000	3,100	1,000 – 10,000	ng/kg dw	LDW-SS109
PCB-168	48/48	100	C153	C153	na	na	na	na	na

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Median Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Maximum Detect Location
PCB-169	0/594	0	nd	nd	nd	410	0.399 – 10,000	ng/kg dw	nd
PCB-170	415/546	76	190 J	460,000	3,700	9,000	80 – 14,000	ng/kg dw	WES236
PCB-180	496/594	84	155 C	1,600,000 C	5,600	21,000	110 – 9,500	ng/kg dw	LDW-SS109
PCB-187	207/249	83	1,000	360,000 J	3,000	6,000	1,000 – 6,000	ng/kg dw	DR207
PCB-189	72/594	12	3.06	65,700	290	640	110 – 10,000	ng/kg dw	LDW-SS109
PCB-193	48/48	100	C180	C180	na	na	na	na	na
PCB-195	31/249	12	1,000 J	49,000 J	1,000	1,100	1,000 – 10,000	ng/kg dw	DR207
PCB-206	41/249	16	1,000	27,000	1,000	920	1,000 – 10,000	ng/kg dw	DR217
PCB-209	7/249	3	1,000	2,000	1,000	540	1,000 – 10,000	ng/kg dw	DR007 DR081
Aroclor-1016	0/1020	0	nd	nd	nd	30	0.87 – 3,400	µg/kg dw	nd
Aroclor-1221	0/894	0	nd	nd	nd	31	1.9 – 5,500	µg/kg dw	nd
Aroclor-1232	0/894	0	nd	nd	nd	25	0.87 – 3,400	µg/kg dw	nd
Aroclor-1242	108/1021	11	7.8 J	2,700	41	49	0.87 – 6,100	µg/kg dw	LDW-SS143
Aroclor-1248	228/1030	22	6.3	220,000	82	360	0.87 – 4,300	µg/kg dw	NFK305
Aroclor-1254	817/1022	80	2.2	110,000	80	500	1.3 – 4,300	µg/kg dw	LDW-SS109
Aroclor-1254/1260	8/8	100	37	800	120	180	na	µg/kg dw	SH-05
Aroclor-1260	823/1022	81	1.2 J	38,000	80	600	3.9 – 15,000	µg/kg dw	T117-SE-21-G
Aroclor-1262	2/12	17	270	840	560	97	3.3 – 20	µg/kg dw	SD-SWY12
Aroclor-1268	1/11	9	460 J	460 J	460	47	3.3 – 20	µg/kg dw	SD-DUW44
PCBs (total calc'd)	1243/1327	94	1.6 J	220,000	150	1,200	nc	µg/kg dw	NFK305
PCBs + PCTs (total)	294/297	99	1.6	26,000	110	400	0.56 – 0.63	µg/kg dw	EIT070
PCTs (total)	258/299	86	1.8 J	5,600	16	49	1.6 – 8.1	µg/kg dw	EIT076
PCB TEQ - Bird	48/48	100	0.646 J	6,210	30.3	289	na	ng/kg dw	LDW-SS109
PCB TEQ - Fish	48/48	100	0.00635 J	143.0	0.285	4.45	na	ng/kg dw	LDW-SS109
PCB TEQ - Mammal	48/48	100	0.0908 J	1,380	3.50	45.9	na	ng/kg dw	LDW-SS109
Pesticides									
2,4'-DDD	5/93	5	1.6 JN	10 JN	7.0	2.0	0.97 – 34	µg/kg dw	C10-1
2,4'-DDE	2/93	2	2.8 JN	11 JN	6.9	1.7	0.97 – 34	µg/kg dw	B7a
2,4'-DDT	29/93	31	0.24 JN	11 JN	3.9	5.1	1.9 – 460	µg/kg dw	C7-2
4,4'-DDD	66/193	34	0.29 JN	840	4.1	11	0.81 – 540	µg/kg dw	DR178
4,4'-DDE	29/193	15	0.28 JN	370 J	3.1	6.8	0.81 – 800	µg/kg dw	DR178
4,4'-DDT	40/193	21	0.48 JN	1,700	8.0	14	0.81 – 56	µg/kg dw	DR178
DDTs (total-calc'd)	76/193	39	0.72 JN	2,900 J	8.5	28	nc	µg/kg dw	DR178
Aldrin	4/193	2	0.014 J	1.6 JN	0.60	1.1	0.40 – 56	µg/kg dw	B3b
Dieldrin	8/193	4	0.099 J	280	6.5	3.6	0.81 – 91	µg/kg dw	DR178

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Median Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Maximum Detect Location
Total aldrin/dieldrin	11/193	6	0.113 J	280	2.3	3.6	nc	µg/kg dw	DR178
alpha-BHC	3/193	2	0.14 J	1.8 JN	0.81	1.1	0.40 – 56	µg/kg dw	B8a
beta-BHC	4/193	2	0.087 J	13	1.6	1.2	0.40 – 56	µg/kg dw	DR178
gamma-BHC	11/193	6	0.050 J	6.7 JN	1.2	1.2	0.40 – 56	µg/kg dw	C8
delta-BHC	3/155	2	0.081 J	11 JN	0.42	1.1	0.40 – 56	µg/kg dw	C8
alpha-Chlordane	13/149	9	0.10 JN	36	0.25	1.4	0.72 – 30	µg/kg dw	LDW-SS85
gamma-Chlordane	25/149	17	0.20 JN	200	3.2	4.9	0.72 – 96	µg/kg dw	DR178
Chlordane	5/44	11	25	62	40	17	7.7 – 330	µg/kg dw	DUD005
Total chlordane	28/149	19	0.20 JN	230	2.8	6.9	nc	µg/kg dw	DR178
alpha-Endosulfan	9/147	6	0.18 JN	71 JN	0.29	1.8	0.40 – 100	µg/kg dw	C8
beta-Endosulfan	3/149	2	0.47 J	10 JN	0.54	2.5	0.81 – 200	µg/kg dw	B5a-2
Endosulfan	1/46	2	0.11 J	0.11 J	0.11	2.2	0.81 – 56	µg/kg dw	SH-06
Endosulfan sulfate	3/191	2	0.63 JN	25 JN	0.84	2.2	0.81 – 200	µg/kg dw	B7a
Endrin	4/193	2	0.99 JN	9.1	3.0	2.2	0.81 – 200	µg/kg dw	SH-06
Endrin aldehyde	6/182	3	0.28 JN	130	6.3	3.6	0.81 – 250	µg/kg dw	DR178
Endrin ketone	7/137	5	0.83 JN	110 JN	1.5	3.6	0.81 – 200	µg/kg dw	C10-2
Heptachlor	6/193	3	0.12 J	5.2	1.8	1.3	0.43 – 70	µg/kg dw	K-03
Heptachlor epoxide	5/193	3	0.47 JN	4.9 JN	1.0	2.7	0.40 – 510	µg/kg dw	B5b
Methoxychlor	11/193	6	0.34 JN	99	2.0	6.7	0.97 – 330	µg/kg dw	DR178
Mirex	3/93	3	0.29 JN	1.0 JN	0.37	1.3	0.97 – 34	µg/kg dw	C10-2
Cis-Nonachlor	0/58	0	nd	nd	nd	4.6	1.9 – 330	µg/kg dw	nd
Trans-Nonachlor	0/58	0	nd	nd	nd	1.5	1.9 – 34	µg/kg dw	nd
Oxychlordane	0/58	0	nd	nd	nd	1.6	1.9 – 34	µg/kg dw	nd
Toxaphene	2/191	1	340 JN	6,300 JN	3,300	110	1.0 – 4,300	µg/kg dw	B8a
Grain size									
Fractional % (>9525 µm)	0/249	0	nd	nd	nd	0.0050	0.01	% dw	nd
Fractional % phi >-3 (>8,000 µm)	4/5	80	1.5	4	2	2	0.1	% dw	R22
Fractional % phi >-2 (>4,000 µm)	12/13	92	0.2	3	0.6	0.9	0.1	% dw	DUD_5C
Fractional % phi >-1 (>2,000 µm)	274/294	93	0.010	81.5	2	6	0.1	% dw	JHGSA-SD1-02-0010
Fractional % phi -3-(-2) (4,000-8,000 µm)	11/12	92	0.20	2	1	1	0.1	% dw	R18 R22
Fractional % phi -2-(-1) (2,000-4,000 µm)	210/290	72	0.010	14	0.4	0.9	0.01 – 0.1	% dw	DR209
Fractional % phi -1-0 (1,000-2,000 µm)	744/805	92	0.020 J	37	2	2	0.01 – 0.1	% dw	DR257
Fractional % phi 0-1 (500-1,000 µm)	809/823	98	0.2	63	3	6	0.01	% dw	DR298
Fractional % phi 1-2 (250-500 µm)	812/824	99	0.44 J	63.9	9	10	0.01	% dw	LDW-SS156

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency		Concentration						Maximum Detect Location
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit	
Fractional % phi 2-3 (125-250 µm)	818/824	99	0.46 J	39.4	8	10	0.01	% dw	LDW-SS144
Fractional % phi 3-4 (62.5-125 µm)	827/830	100	0.090	36	9	10	0.01 – 0.1	% dw	DR167
Fractional % phi 4-5 (31.2-62.5 µm)	810/821	99	0.060 J	31	10	10	0.01 – 0.1	% dw	R69 R88
Fractional % phi 5-6 (15.6-31.2 µm)	803/820	98	0.1	49	10	10	0.01 – 0.1	% dw	R14
Fractional % phi 6-7 (7.8-15.6 µm)	805/820	98	0.030 J	42.3	10	10	0.01 – 0.1	% dw	DUD_2C
Fractional % phi 7-8 (3.9-7.8 µm)	801/820	98	0.070 J	22.6	6	7	0.01 – 0.1	% dw	DUD_8C
Fractional % phi 8-9 (1.95-3.9 µm)	799/820	97	0.1	26	3	4	0.01 – 0.1	% dw	SD-2
Fractional % phi 9+ (<1.95 µm)	6/6	100	1.45	10.7	9.50	7.19	na	% dw	T117-SE-86-G
Fractional % phi 9-10 (0.98-1.95 µm)	792/820	97	0.010	12	2	3	0.01 – 0.1	% dw	SD-2
Fractional % phi 10+ (<0.98 µm)	770/814	95	0.23 J	23.6	5	5	0.01 – 0.1	% dw	LDW-SS315
Fractional % Sieve #10 (2,000-4,750 µm)	109/179	61	1.0	25	2.0	2.2	0.01	% dw	SD-04402
Fractional % Sieve 3/8in (4,750-9,525 µm)	54/249	22	0.020	59	1.1	0.77	0.01	% dw	DR124
Fractional % Sieve #4 (>4,750 µm)	78/179	44	1.0	47	3.0	3.9	0.01	% dw	SD-04107 SD-SWY05
Gravel (total calc'd)	606/764	79	0.010	81.5	2	4	nc	% dw	JHGSA-SD1-02-0010
Sand (total calc'd)	1247/1247	100	0.22	100	40	40	nc	% dw	NFK014 EST103 DR297
Silt (total calc'd)	1240/1251	99	0.1	80	50	40	nc	% dw	R38 R48
Clay (total calc'd)	1226/1250	98	0.1	55	10	10	nc	% dw	SD-2
Gravel	298/423	70	0.010	60	0.8	3	0.01 – 0.1	% dw	EIT070
Coarse Sand (4750-2000 microns)	11/11	100	0.200	24.5	11.8	10.3	na	% dw	T117-SE-37-G
Medium Sand (2000-425 microns)	11/11	100	3.80	52.3	12.9	18.2	na	% dw	T117-SE-89-G
Fine Sand (425-75 microns)	11/11	100	2.70	71.1	19.3	21.4	na	% dw	T117-SE-08-G
Fines (percent silt+clay)	812/821	99	0.1	100	60	50	0.01 – 0.1	% dw	R48
Conventional parameters									
Total organic carbon (TOC)	1336/1336	100	0.032	11.5	2	2	na	% dw	SG01
Total solids	551/551	100	29	94.0	55	57	na	% ww	NFK302
Total solids (preserved)	160/160	100	30.60	92.00	50.90	52.83	na	% ww	LDW-SS151
Sulfides (total)	134/229	59	2.0 J	7,700	100	200	0.68 – 46	mg/kg dw	LDW-SS78
Acid volatile sulfides	41/52	79	88 J	6,100 J	1,700	1,600	48 – 89	mg/kg dw	DUD010
Ammonia	14/14	100	5.40	20.3	8.6	11	na	mg/kg dw	DUD032
Ammonia (total as nitrogen)	156/160	98	0.18	39.1	6.4	8.1	0.10 – 0.12	mg-N/kg	LDW-SS72

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Median Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Maximum Detect Location
Cyanide	0/4	0	nd	nd	nd	0.24	0.44 – 0.51	mg/kg dw	nd
Moisture	5/5	100	34.4	48.8	37.6	39.5	na	% ww	T117-SE-08-G
pH	154/154	100	4.6	8.7	7.4	7.5	na	pH	SD-04907
Salinity	14/14	100	14	27.0	27	24	na	g/kg ww	DUD018 DUD033 DUD031 DUD029 DUD025 DUD021 DUD016 DUD023
Volatile organic compounds									
1,1,1,2-Tetrachloroethane	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
1,1,1-Trichloroethane	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
1,1,2,2-Tetrachloroethane	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
1,1,2-Trichloroethane	0/41	0	nd	nd	nd	15	1.4 – 1,100	µg/kg dw	nd
1,1,2-Trichlorotrifluoroethane	0/39	0	nd	nd	nd	20	1.5 – 1,100	µg/kg dw	nd
1,1-Dichloroacetone	0/34	0	nd	nd	nd	45	3.0 – 2,700	µg/kg dw	nd
1,1-Dichloroethane	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
1,1-Dichloroethene	0/41	0	nd	nd	nd	16	1.4 – 1,100	µg/kg dw	nd
1,1-Dichloropropene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
1,2,3-Trichlorobenzene	0/36	0	nd	nd	nd	18	2.4 – 1,100	µg/kg dw	nd
1,2,3-Trichloropropane	0/36	0	nd	nd	nd	18	1.5 – 1,100	µg/kg dw	nd
1,2,4-Trimethylbenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
1,2-Dibromo-3-chloropropane	0/36	0	nd	nd	nd	20	4.6 – 1,100	µg/kg dw	nd
1,2-Dibromoethane (EDB)	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
1,2-Dichloroethane	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
1,2-Dichloroethene (total)	0/2	0	nd	nd	nd	12	23 – 24	µg/kg dw	nd
1,2-Dichloropropane	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
1,3,5-Trimethylbenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
1,3-Dichloropropane	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
1-Chlorobutane	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
2,2-Dichloropropane	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
2-Chloroethyl vinyl ether	0/3	0	nd	nd	nd	4.7	7.0 – 12	µg/kg dw	nd
2-Chlorotoluene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
2-Hexanone	0/41	0	nd	nd	nd	29	3.0 – 2,100	µg/kg dw	nd

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Median Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Maximum Detect Location
2-Nitropropane	0/36	0	nd	nd	nd	44	7.6 – 2,700	µg/kg dw	nd
4-Chlorotoluene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
Acetone	3/41	7	110 J	1,000 J	160	310	11 – 21,000	µg/kg dw	DR047
Allyl chloride	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
Benzene	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Bromobenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
Bromochloromethane	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
Bromodichloromethane	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Bromoform	0/41	0	nd	nd	nd	37	1.4 – 2,700	µg/kg dw	nd
Bromomethane	0/41	0	nd	nd	nd	72	2.8 – 5,300	µg/kg dw	nd
Carbon disulfide	12/41	29	0.84 J	4.0 J	1.4	16	1.4 – 1,100	µg/kg dw	DR178
Carbon tetrachloride	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Chloroacetonitrile	0/2	0	nd	nd	nd	7.9	7.6 – 24	µg/kg dw	nd
Chlorobenzene	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Chloroethane	0/41	0	nd	nd	nd	140	2.8 – 11,000	µg/kg dw	nd
Chloroform	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Chloromethane	0/41	0	nd	nd	nd	16	1.5 – 1,100	µg/kg dw	nd
cis-1,2-Dichloroethene	0/39	0	nd	nd	nd	8.1	1.4 – 530	µg/kg dw	nd
cis-1,3-Dichloropropene	0/41	0	nd	nd	nd	8.7	1.4 – 560	µg/kg dw	nd
p-Cymene	3/36	8	1.6 J	25	1.6	9.3	1.5 – 530	µg/kg dw	DR111
Dibromochloromethane	0/41	0	nd	nd	nd	36	1.4 – 2,700	µg/kg dw	nd
Dibromomethane	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
Dichlorodifluoromethane	0/7	0	nd	nd	nd	1.0	1.5 – 3.3	µg/kg dw	nd
Dichloromethane	1/41	2	1,600	1,600	1,600	44	2.8 – 21	µg/kg dw	DR008
Diethyl ether	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
Ethyl Methacrylate	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
Ethylbenzene	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Iodomethane	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd
Isopropylbenzene	0/36	0	nd	nd	nd	12	2.3 – 530	µg/kg dw	nd
Methacrylonitrile	0/36	0	nd	nd	nd	20	4.6 – 1,100	µg/kg dw	nd
Methyl Acrylate	0/36	0	nd	nd	nd	12	2.3 – 530	µg/kg dw	nd
Methyl ethyl ketone	15/41	37	5.3	35	14	21	3.0 – 1,100	µg/kg dw	DR154
Methyl Methacrylate	0/36	0	nd	nd	nd	9.4	2.3 – 530	µg/kg dw	nd
n-Butylbenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
n-Propylbenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
Pentachloroethane	0/36	0	nd	nd	nd	17	1.5 – 1,100	µg/kg dw	nd

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency		Concentration						Maximum Detect Location
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit	
sec-Butylbenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
Styrene	0/41	0	nd	nd	nd	15	1.4 – 1,100	µg/kg dw	nd
Tert-butyl methyl ether	0/36	0	nd	nd	nd	8.9	1.5 – 530	µg/kg dw	nd
tert-Butylbenzene	0/36	0	nd	nd	nd	8.7	1.5 – 530	µg/kg dw	nd
Tetrachloroethene	2/41	5	0.21 J	0.52 J	0.36	8.2	1.4 – 530	µg/kg dw	DR297
Toluene	3/41	7	1.0 J	2.2 J	1.5	8.3	1.4 – 530	µg/kg dw	DR011
trans-1,2-Dichloroethene	0/39	0	nd	nd	nd	8.1	1.4 – 530	µg/kg dw	nd
trans-1,3-Dichloropropene	0/41	0	nd	nd	nd	8.4	1.4 – 500	µg/kg dw	nd
trans-1,4-Dichloro-2-butene	0/34	0	nd	nd	nd	46	7.6 – 2,700	µg/kg dw	nd
Trichloroethene	0/41	0	nd	nd	nd	8.2	1.4 – 530	µg/kg dw	nd
Trichlorofluoromethane	0/39	0	nd	nd	nd	77	1.5 – 5,300	µg/kg dw	nd
Vinyl acetate	0/3	0	nd	nd	nd	4.7	7.0 – 12	µg/kg dw	nd
Vinyl chloride	0/41	0	nd	nd	nd	37	1.5 – 2,700	µg/kg dw	nd
Xylene (ortho)	0/39	0	nd	nd	nd	8.1	1.4 – 530	µg/kg dw	nd
Xylene (meta & para)	0/39	0	nd	nd	nd	17	1.4 – 1,100	µg/kg dw	nd
Xylene (total)	0/2	0	nd	nd	nd	12	23 – 24	µg/kg dw	nd
Total Xylenes	0/39	0	nd	nd	nd	17	nc	µg/kg dw	nd
Dioxin/furan									
2,3,7,8-TCDD	22/47	47	0.0890 J	30.6	0.78	1.6	0.27 – 1.1	ng/kg dw	LDW-SS84
1,2,3,7,8-PeCDD	24/47	51	0.284 J	57.1	2.2	4.7	0.53 – 4.1	ng/kg dw	LDW-SS84
1,2,3,4,7,8-HxCDD	24/47	51	0.382 J	124	3.6	9.2	0.72 – 5.4	ng/kg dw	LDW-SS56
1,2,3,6,7,8-HxCDD	39/47	83	1.73 J	3,400	13	120	0.74 – 4.1	ng/kg dw	LDW-SS56
1,2,3,7,8,9-HxCDD	35/47	74	1.19 J	315	10	27	0.84 – 4.8	ng/kg dw	LDW-SS56
1,2,3,4,6,7,8-HpCDD	45/47	96	41.4 J	73,700	290	2,800	0.99 – 1.1	ng/kg dw	LDW-SS56
OCDD	47/47	100	7.8 J	241,000	2,700	18,000	na	ng/kg dw	LDW-SS56
2,3,7,8-TCDF	38/47	81	0.426 J	397	2.1	14	0.18 – 1.4	ng/kg dw	LDW-SS37
1,2,3,7,8-PeCDF	23/47	49	0.214 J	69.3	1.30	5.02	0.28 – 5.0	ng/kg dw	LDW-SS56
2,3,4,7,8-PeCDF	24/47	51	0.392 J	230	3.8	17	0.44 – 5.4	ng/kg dw	LDW-SS56
1,2,3,4,7,8-HxCDF	34/47	72	0.694 J	2,530	9.4	130	0.29 – 4.2	ng/kg dw	LDW-SS56
1,2,3,6,7,8-HxCDF	24/47	51	0.335 J	365	3.6	23	0.22 – 4.3	ng/kg dw	LDW-SS56
1,2,3,7,8,9-HxCDF	22/47	47	0.0730 J	33.8 J	0.340	1.97	0.12 – 2.4	ng/kg dw	LDW-SS56
2,3,4,6,7,8-HxCDF	24/47	51	0.307 J	302 J	2.4	14	0.29 – 2.5	ng/kg dw	LDW-SS56
1,2,3,4,6,7,8-HpCDF	44/47	94	6.71	40,300	52	1,200	0.62 – 7.7	ng/kg dw	LDW-SS56
1,2,3,4,7,8,9-HpCDF	31/47	66	0.421 J	3,720	6.6	120	0.77 – 4.2	ng/kg dw	LDW-SS56
OCDF	46/47	98	12.5	93,700	160	3,000	0.74	ng/kg dw	LDW-SS56
Total TCDD	19/24	79	0.95	18	5.2	4.6	0.34 – 1.1	ng/kg dw	DR008

Table E.6.1-1, cont. Summary statistics for surface sediment data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Median Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Maximum Detect Location
Total PeCDD	1/24	4	49	49	49	3.7	1.4 – 8.5	ng/kg dw	DR008
Total HxCDD	22/24	92	7.5	1,100	69	100	1.1 – 1.7	ng/kg dw	DR008
Total HpCDD	22/24	92	120	11,000	540	940	0.99 – 1.9	ng/kg dw	DR008
Total TCDF	22/24	92	3.0	95	26	26	0.28 – 0.32	ng/kg dw	DR008
Total PeCDF	21/24	88	4.9	180	23	28	0.71 – 3.9	ng/kg dw	DR008
Total HxCDF	22/24	92	6.2	1,200	44	92	0.36 – 0.45	ng/kg dw	DR008
Total HpCDF	22/24	92	18	3,900	120	280	0.84 – 2.2	ng/kg dw	DR008
Dioxin/furan TEQ - Bird	47/47	100	1.4 J	1,230 J	8.6	77	na	ng/kg dw	LDW-SS56
Dioxin/furan TEQ - Fish	47/47	100	1.110 J	1,130 J	6.3	57	na	ng/kg dw	LDW-SS56
Dioxin/furan TEQ - Mammal	47/47	100	1.1 J	2,100 J	10	93	na	ng/kg dw	LDW-SS56
Petroleum groups									
Gasoline	2/7	29	130	260	200	59	10	mg/kg dw	SD-04122
TPH - Gasoline Range	0/2	0	nd	nd	nd	10	20	mg/kg dw	nd
TPH - Diesel Range	2/2	100	68	81	75	75	na	mg/kg dw	SD-04121
TPH - Diesel #2 Range	0/5	0	nd	nd	nd	5.0	10	mg/kg dw	nd
Lube Oils	0/4	0	nd	nd	nd	5.0	10	mg/kg dw	nd
TPH - Heavy Fuel Oil Range	2/3	67	250	370	310	210	10	mg/kg dw	SD-04121
TPH	49/55	89	23	23,000	560	1,700	20	mg/kg dw	SS-SWY05 SS-SWY06
Total Petroleum Hydrocarbons	2/2	100	68	81	75	75	nc	mg/kg dw	SD-04121

Table E.6.1-2. Summary surface sediment statistics and comparisons to SMS criteria for chemicals with OC-normalized criteria

Chemical[a]	Detection Frequency[b]		Concentration (mg/kg OC)					Maximum Detect Location	SMS Criteria (mg/kg OC)		Comparison to SMS Criteria (Number of Locations)			
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs		SQS	CSL	Detect > SQS and ≤ CSL	Detect > CSL	Nondetect > SQS and ≤ CSL	Nondetect > CSL
PAHs														
2-Methylnaphthalene	123/753	16	0.090	160	1	2	0.059 – 94	LDW-SS35	38	64	0	2	6	1
Acenaphthene	283/760	37	0.064 J	260	2	3	0.059 – 94	LDW-SS35	16	57	14	3	9	2
Acenaphthylene	118/753	16	0.12 J	9.2	1.5	1.6	0.059 – 94	B4a	66	66	0	0	0	1
Anthracene	548/760	72	0.10	380	4	7	0.65 – 94	LDW-SS95	220	1,200	2	0	0	0
Benzo(a)anthracene	712/760	94	0.44	440	10	20	0.29 – 34	T117-SE-37-G	110	270	7	1	0	0
Benzo(a)pyrene	710/756	94	0.25	420	10	20	0.29 – 68	T117-SE-37-G	99	210	3	3	0	0
Benzo(g,h,i)perylene	648/755	86	0.22	180	6	8	0.65 – 94	R23 and C8	31	78	10	3	4	1
Total benzofluoranthenes	715/754	95	0.49 J	890	20	40	nc	T117-SE-37-G	230	450	4	2	0	0
Chrysene	731/760	96	0.86	410	20	20	0.67 – 34	T117-SE-37-G	110	460	19	0	0	0
Dibenzo(a,h)anthracene	413/760	54	0.080	71	2	3	0.034 – 170	R23 and C8	12	33	12	4	8	6
Dibenzofuran	232/759	31	0.10 J	220	2	3	0.059 – 94	T117-SE-37-G	15	58	6	3	9	2
Fluoranthene	750/760	99	0.92	1,300	20	50	0.67 – 68	T117-SE-37-G	160	1,200	30	1	0	0
Fluorene	357/760	47	0.090	290	2.1	4.0	0.059 – 94	T117-SE-37-G	23	79	10	3	8	1
Indeno(1,2,3-cd)pyrene	689/755	91	0.23	200	7	9	0.29 – 59	C8	34	88	16	4	1	0
Naphthalene	135/753	18	0.13 J	260	1.6	2.3	0.059 – 94	LDW-SS35	99	170	0	1	0	0
Phenanthrene	719/760	95	0.36	1,500	10	20	0.67 – 34	T117-SE-37-G	100	480	20	3	0	0
Pyrene	743/760	98	0.87	840	20	40	0.67 – 34	T117-SE-37-G	1,000	1,400	0	0	0	0
Total HPAH	754/760	99	1.6 J	4,500	100	200	nc	T117-SE-37-G	960	5,300	19	0	0	0
Total LPAH	721/760	95	0.46	2,300	10	30	nc	T117-SE-37-G	370	780	2	3	0	0
Phthalates														
Bis(2-ethylhexyl)phthalate	637/764	83	0.20	390	20	20	0.88 – 170	DUD026	47	78	48	49	2	2
Butyl benzyl phthalate	406/757	54	0.071	530 J	2	4	0.060 – 94	SD-DUW48	4.9	64	62	6	65	1
Diethyl phthalate	40/764	5	0.14 J	20	0.7	1	0.059 – 94	DUD007	61	110	0	0	1	0
Dimethyl phthalate	149/757	20	0.14 J	15	1	1	0.059 – 94	LDW-SS14	53	53	0	0	0	2
Di-n-butyl phthalate	176/757	23	0.29 J	140	2	3	0.059 – 94	SD-04915	220	1,700	0	0	0	0
Di-n-octyl phthalate	44/764	6	0.11	35	1.9	2.0	0.059 – 170	SD-04102	58	4,500	0	0	5	0
Other SVOCs														
1,2,4-Trichlorobenzene	4/751	1	0.057 J	0.61 J	0.11	0.88	0.020 – 94	DUD012	0.81	1.8	0	0	231	116

Table E.6.1-2, cont. Summary surface sediment statistics and comparisons to SMS criteria for chemicals with OC-normalized criteria

Chemical[a]	Detection Frequency[b]		Concentration (mg/kg OC)					Maximum Detect Location	SMS Criteria (mg/kg OC)		Comparison to SMS Criteria (Number of Locations)			
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs		SQS	CSL	Detect > SQS and ≤ CSL	Detect > CSL	Nondetect > SQS and ≤ CSL	Nondetect > CSL
1,2-Dichlorobenzene	15/751	2	0.068 J	2.9 J	0.10	0.88	0.020 – 94	DUD012	2.3	2.3	0	1	0	99
1,4-Dichlorobenzene	34/751	5	0.097 J	65	0.36	1.0	0.023 – 94	R88	3.1	9	0	2	77	15
Hexachlorobenzene	45/753	6	0.02 J	3.8	0.08	0.8	0.0095 – 94	B7a	0.38	2.3	4	2	283	94
Hexachlorobutadiene	0/753	0	nd	nd	nd	nd	0.028 – 94	nd	3.9	6.2	0	0	20	78
N-Nitrosodiphenylamine	21/753	3	0.23	7.9	0.37	1.4	0.059 – 94	DUD021	11	11	0	0	0	17
Polychlorinated biphenyls														
PCBs (total calc'd)	1145/1203	95	0.11 J	10,000	8	60	nc	NFK305	12	65	285	160	0	0

[a] Data for chemicals with dry weight SMS criteria are presented in Table E.6.1-1.

[b] Surface sediment sample locations were not included if the TOC content was < 0.5% or > 4.0%. Data from these locations were compared to LAETs and 2LAETs in Table E.6.1-3.

Table E.6.1-3. Summary surface sediment statistics and comparisons to SMS criteria for chemicals with dry weight criteria

Chemical	Detection Frequency		Concentration (						Maximum Detect Location	SMS Criteria			Comparison to SMS Criteria[a] (Number of Locations)			
	Ratio	%	Minimum Detect	Maximum Detect	Median Detect	Calculated Mean	RL or Range of RLs	Unit		SQS	CSL	Unit	Detect > SQS and ≤ CSL	Detect > CSL	Nondetect > SQS and ≤ CSL	Nondetect > CSL
Metals and trace elements																
Arsenic	794/852	93	1.2	1,100	12	17	3.1 – 31	mg/kg dw	LDW-SS114	57	93	mg/kg dw	5	9	0	0
Cadmium	584/838	70	0.030 J	120	0.5	1	0.04 – 2.5	mg/kg dw	SS-SWY01	5.1	6.7	mg/kg dw	2	11	0	0
Chromium	850/850	100	4.8	1,100 J	30	40	na	mg/kg dw	SS-SWY06	260	270	mg/kg dw	1	8	0	0
Copper	852/852	100	5	12,000 J	50	100	na	mg/kg dw	SS-SWY01 SS-SWY02	390	390	mg/kg dw	0	12	0	0
Lead	852/852	100	2	23,000	40	100	na	mg/kg dw	SS-SWY02	450	530	mg/kg dw	2	19	0	0
Mercury	746/868	86	0.021	4.6 J	0.2	0.2	0.02 – 0.10	mg/kg dw	SD-04408	0.41	0.59	mg/kg dw	16	27	0	0
Silver	499/823	61	0.020	270	0.4	1	0.046 – 5	mg/kg dw	SS-SWY02	6.1	6.1	mg/kg dw	0	10	0	0
Zinc	849/849	100	16	9,700	110	190	na	mg/kg dw	SS-SWY01	410	960	mg/kg dw	26	16	0	0
Other SVOCs																
2,4-Dimethylphenol	5/813	1	6.1	290 J	17	33	6.0 – 2,000	µg/kg dw	DD-2	29	29	µg/kg dw	0	1	0	222
2-Methylphenol	7/821	1	8.6	58 J	14	28	6.0 – 2,000	µg/kg dw	WQA8AVE	63	63	µg/kg dw	0	0	0	114
4-Methylphenol	82/831	10	4.8 J	4,600 J	34	44	8.6 – 2,000	µg/kg dw	DUD207	670	670	µg/kg dw	0	4	0	9
Benzoic acid	70/822	9	54 J	4,500	220	200	13 – 3,000	µg/kg dw	NFK305	650	650	µg/kg dw	0	8	0	107
Benzyl alcohol	15/812	2	8.2 J	670	27	46	9.2 – 690	µg/kg dw	LDW-SS24	57	73	µg/kg dw	2	3	7	106
Pentachlorophenol	12/785	2	14 J	410	100	96	7.6 – 4,900	µg/kg dw	LDW-SSB4a	360	690	µg/kg dw	1	0	88	29
Phenol	257/831	31	10 J	2,800	70	90	7.3 – 790	µg/kg dw	B8a	420	1,200	µg/kg dw	17	6	5	0

Table E.6.1-4. Summary surface sediment statistics and comparisons to AETs for surface sediment samples with TOC < 0.5% or > 4%

Chemical	Detection Frequency		Concentration (µg/kg dw)						Maximum Detect Location	AET Value (µg/kg dw)		Comparison to AET Value (Number of Locations)			
	Ratio	%	Minimum Detect	Maximum Detect	Mean Detect	Calcu-lated Mean	Median Detect	RL or Range of RLs		LAET	2LAET	Detect > LAET and ≤ 2LAET	Detect> 2LAET	Nondetect > LAET and ≤ 2LAET	Nondetect >2LAET
PAHs															
2-Methylnaphthalene	16/65	25	1.0 J	2,400	210	72	40	19 – 290	DUD027	670	1,400	0	1	0	0
Acenaphthene	21/68	31	1.4 J	630	130	56	53	13 – 300	SD-04104	500	730	1	0	0	0
Acenaphthylene	10/65	15	4.0 J	500	110	36	41	2.0 – 290	LDW-SS312	1,300	1,300	0	0	0	0
Anthracene	28/68	41	8.2	910	230	110	150	19 – 290	DR050	960	4,400	0	0	0	0
Benzo(a)anthracene	36/68	53	16	2,600	590	320	360	6.4 – 170	LDW-SS24	1,300	1,600	2	3	0	0
Benzo(a)pyrene	37/66	56	10 J	3,200	530	310	250	6.4 – 350	LDW-SS312	1,600	3,000	2	1	0	0
Benzo(g,h,i)perylene	34/68	50	8.0 J	1,600	310	170	200	19 – 350	LDW-SS312	670	720	0	5	0	0
Total benzofluoranthenes	42/68	62	20	4,900	1,100	670	490	19 – 77	DUD005	3,200	3,600	1	3	0	0
Chrysene	42/68	62	30	3,600	740	460	290	19 – 77	LDW-SS24	1,400	2,800	6	2	0	0
Dibenzo(a,h)anthracene	23/68	34	2.0 J	460 J	150	68	130	6.1 – 290	SB-5	230	540	4	0	2	0
Dibenzofuran	16/68	24	1.0 J	360	89	42	58	19 – 300	SD-04104	540	700	0	0	0	0
Fluoranthene	47/68	69	20	6,700	1,200	830	400	19 – 77	DR050	1,700	2,500	2	9	0	0
Fluorene	25/68	37	2.3 J	506	130	64	64	19 – 300	DUD027	540	1,000	0	0	0	0
Indeno(1,2,3-cd)pyrene	37/68	54	7.0 J	1,600	330	190	190	6.4 – 290	LDW-SS312	600	690	0	5	0	0
Naphthalene	17/65	26	3.0 J	4,100	320	110	66	1.5 – 530	DUD027	2,100	2,400	0	1	0	0
Phenanthrene	40/68	59	18	3,400	650	390	260	19 – 170	LDW-SS312	1,500	5,400	4	0	0	0
Pyrene	45/68	66	24 J	4,800	1,000	690	390	19 – 77	LDW-SS312	2,600	3,300	2	4	0	0
Total HPAH	49/68	72	20	26,300	5,000	3,600	1,700	19 – 77	LDW-SS312	12,000	17,000	5	4	0	0
Total LPAH	42/68	62	30	7,400 J	1,100	670	350	19 – 170	DUD027	5,200	13,000	1	0	0	0
Phthalates															
Bis(2-ethylhexyl)phthalate	37/68	54	10 J	14,000	2,100	1,200	190	19 – 1,500	DUD005	1,300	1,900	0	10	1	0
Butyl benzyl phthalate	19/65	29	9.3	1,900	290	99	100	3.0 – 290	DUD005	63	900	9	2	10	0
Diethyl phthalate	1/68	1	7.2	7.2	7.2	26	7.2	2.0 – 300	LDW-SS86	200	1,200	0	0	3	0
Dimethyl phthalate	7/65	11	6.2	180	49	22	30	2.0 – 290	DUD005	71	160	0	1	8	3
Di-n-butyl phthalate	13/65	20	5.0 J	400	140	49	59	3.0 – 290	DUD005	1,400	5,100	0	0	0	0

Table E.6.1-4, cont. Summary surface sediment statistics and comparisons to AETs for surface sediment datasamples with TOC < 0.5% or > 4%

Chemical	Detection Frequency		Concentration (µg/kg dw)						Maximum Detect Location	AET Value (µg/kg dw)		Comparison to AET Value (Number of Locations)			
	Ratio	%	Minimum Detect	Maximum Detect	Mean Detect	Calcu-lated Mean	Median Detect	RL or Range of RLs		LAET	2LAET	Detect > LAET and ≤ 2LAET	Detect> 2LAET	Nondetect > LAET and ≤ 2LAET	Nondetect >2LAET
Di-n-octyl phthalate	5/68	7	20	555	230	60	87	2.0 – 1,500	DD-2	6,200	na	0	0	0	0
Other SVOCs															
1,2,4-Trichlorobenzene	1/65	2	72 J	72 J	72	23	72	0.85 – 1,100	DUD027	31	51	0	1	0	12
1,2-Dichlorobenzene	2/65	3	150 J	520 J	340	24	340	0.85 – 290	DR008	35	50	0	2	0	11
1,4-Dichlorobenzene	5/65	8	9.3 J	1,600 J	350	45	44	0.85 – 530	DUD027	110	120	0	1	0	3
Hexachlorobenzene	1/66	2	0.97 J	0.97 J	0.97	14	0.97	0.85 – 290	NFK502-Apr-99	22	70	0	0	0	11
Hexachlorobutadiene	0/65	0	nd	nd	nd	25	nd	0.97 – 530	nd	11	120	0	0	38	10
N-Nitrosodiphenylamine	2/65	3	95	110	100	29	100	3.0 – 400	DUD010	28	40	0	2	34	16
Polychlorinated biphenyls															
PCBs (total calc'd)	98/124	79	1.6 J	56,000 J	1,600	1,200	94	0.60 – 40	DUD027	130	1,000	29	14	0	0

E.6.2 SUBSURFACE SEDIMENT

Table E.6.2-1. Summary statistics for subsurface sediment data in 1-ft depth intervals down to 10 ft below mudline

CHEMICAL	DEPTH INTERVAL[a]	DETECTION FREQUENCY RATIO	DETECTION FREQUENCY %	CONCENTRATION MINIMUM DETECT	CONCENTRATION MAXIMUM DETECT	CONCENTRATION CALCULATED MEAN	CONCENTRATION RL OR RANGE OF RLS	CONCENTRATION UNIT
Metals and trace elements								
Aluminum	0 to 1	26/26	100	3,410	18,500	10,000	na	mg/kg dw
	1 to 2	1/1	100	9,400 J	9,400 J	9,400	na	mg/kg dw
	2 to 3	4/4	100	7,900 J	21,000	16,000	na	mg/kg dw
	3 to 4	1/1	100	6,500 J	6,500 J	6,500	na	mg/kg dw
Antimony	0 to 1	3/41	7	20 J	30 J	6	3.7 – 10	mg/kg dw
	1 to 2	3/38	8	16 J	40 J	6	3.0 – 10	mg/kg dw
	2 to 3	0/9	0	nd	nd	3	3.8 – 10	mg/kg dw
	3 to 4	0/9	0	nd	nd	3	3.6 – 8	mg/kg dw
	8 to 9	0/1	0	nd	nd	3	6	mg/kg dw
Arsenic	0 to 1	60/63	95	4.7	707	30	6 – 6.2	mg/kg dw
	1 to 2	46/59	78	5.2	281	20	4.5 – 8.00	mg/kg dw
	2 to 3	7/10	70	5.9	161	20	6.0 – 6.1	mg/kg dw
	3 to 4	4/9	44	9	21	8	6.0 – 7	mg/kg dw
	8 to 9	1/1	100	8	8	8	na	mg/kg dw
Barium	0 to 1	26/26	100	8.34	68.0	43	na	mg/kg dw
	1 to 2	1/1	100	35.0	35.0	35.0	na	mg/kg dw
	2 to 3	4/4	100	17.0	69	44	na	mg/kg dw
	3 to 4	1/1	100	12.0	12.0	12.0	na	mg/kg dw
Beryllium	0 to 1	25/25	100	0.13	0.49	0.3	na	mg/kg dw
	1 to 2	1/1	100	0.28	0.28	0.28	na	mg/kg dw
	2 to 3	4/4	100	0.20	0.31	0.27	na	mg/kg dw
	3 to 4	1/1	100	0.21	0.21	0.21	na	mg/kg dw
Cadmium	0 to 1	52/78	67	0.3	4.5	0.6	0.2 – 0.9	mg/kg dw
	1 to 2	51/80	64	0.3	7.6	0.8	0.2 – 0.5	mg/kg dw
	2 to 3	11/19	58	0.3	18.7	2	0.20 – 0.38	mg/kg dw
	3 to 4	1/9	11	0.8	0.8	0.2	0.2 – 0.36	mg/kg dw
	4 to 5	3/9	33	0.50	3.8 J	0.73	0.20 – 0.30	mg/kg dw
	6 to 7	0/5	0	nd	nd	0.11	0.20 – 0.30	mg/kg dw
	8 to 9	1/4	25	0.70	0.70	0.3	0.20	mg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
Calcium	0 to 1	25/25	100	1,950	5,600	3,900	na	mg/kg dw
	2 to 3	3/3	100	4,800 J	5,800	5,300	na	mg/kg dw
Chromium	0 to 1	86/86	100	6.67	143 J	31	na	mg/kg dw
	1 to 2	80/80	100	9.96	135	30	na	mg/kg dw
	2 to 3	20/20	100	10.9	300	60	na	mg/kg dw
	3 to 4	9/9	100	8.9	24.2	15	na	mg/kg dw
	4 to 5	9/9	100	9.9	140 J	31	na	mg/kg dw
	6 to 7	5/5	100	10	19.1	13	na	mg/kg dw
	8 to 9	4/4	100	8.3	26.5	14	na	mg/kg dw
Chromium VI	0 to 1	0/1	0	nd	nd	7.5	15	mg/kg dw
	2 to 3	0/1	0	nd	nd	7.5	15	mg/kg dw
Cobalt	0 to 1	64/64	100	2.54	18	8.1	na	mg/kg dw
	1 to 2	37/37	100	4.2	15.6	8.6	na	mg/kg dw
	2 to 3	9/9	100	3.9	11	6.8	na	mg/kg dw
	3 to 4	8/8	100	3.5	8.1	5.3	na	mg/kg dw
	8 to 9	1/1	100	3.3	3.3	3.3	na	mg/kg dw
Copper	0 to 1	86/86	100	10.9	327	73	na	mg/kg dw
	1 to 2	80/80	100	7.1	339	64	na	mg/kg dw
	2 to 3	20/20	100	9.20	599	92	na	mg/kg dw
	3 to 4	9/9	100	9.00	37.9	16	na	mg/kg dw
	4 to 5	9/9	100	7.4	67.3	21	na	mg/kg dw
	6 to 7	5/5	100	9.0	26.8	15	na	mg/kg dw
	8 to 9	4/4	100	7.5	31.9	14	na	mg/kg dw
Iron	0 to 1	26/26	100	7,130	38,800	26,000	na	mg/kg dw
	1 to 2	1/1	100	16,000 J	16,000 J	16,000	na	mg/kg dw
	2 to 3	4/4	100	11,000 J	32,000	21,000	na	mg/kg dw
	3 to 4	1/1	100	9,800 J	9,800 J	9,800	na	mg/kg dw
Lead	0 to 1	84/84	100	4.9	639	50	na	mg/kg dw
	1 to 2	73/80	91	2.8	514	70	2.0 – 3	mg/kg dw
	2 to 3	18/19	95	3	356	80	2.0	mg/kg dw
	3 to 4	5/9	56	3	37 J	8	2 – 3.6	mg/kg dw
	4 to 5	8/9	89	3.0	64	16	2.0	mg/kg dw
	6 to 7	2/5	40	3.0	11	3.4	2.0	mg/kg dw
	8 to 9	1/4	25	43	43	10	2.0	mg/kg dw
Magnesium	0 to 1	25/25	100	1,640	9,320	6,100	na	mg/kg dw
	2 to 3	3/3	100	3,300 J	5,900	4,700	na	mg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Manganese	0 to 1	26/26	100	86.5	886	310	na	mg/kg dw
	1 to 2	1/1	100	160	160	160	na	mg/kg dw
	2 to 3	4/4	100	110	450	240	na	mg/kg dw
	3 to 4	1/1	100	98.0	98.0	98.0	na	mg/kg dw
Mercury	0 to 1	81/84	96	0.05	0.71	0.2	0.05 – 0.100	mg/kg dw
	1 to 2	54/66	82	0.06	0.6	0.2	0.040 – 0.0600	mg/kg dw
	2 to 3	13/19	68	0.070	0.64	0.2	0.030 – 0.060	mg/kg dw
	3 to 4	2/9	22	0.07	0.17	0.05	0.020 – 0.06	mg/kg dw
	4 to 5	3/10	30	0.060	0.24 J	0.065	0.040 – 0.060	mg/kg dw
	6 to 7	2/5	40	0.050	0.16	0.055	0.040 – 0.050	mg/kg dw
	8 to 9	1/3	33	0.19	0.19	0.080	0.050	mg/kg dw
Molybdenum	0 to 1	30/40	75	0.9	11	2	0.6 – 2.4	mg/kg dw
	1 to 2	27/38	71	0.6	16	2	0.6 – 1	mg/kg dw
	2 to 3	3/7	43	0.7	1.8	0.9	0.6 – 2.5	mg/kg dw
	3 to 4	3/9	33	0.8	1.5	0.7	0.6 – 2.4	mg/kg dw
	8 to 9	1/1	100	0.7	0.7	0.7	na	mg/kg dw
Nickel	0 to 1	65/65	100	4.8	36	20	na	mg/kg dw
	1 to 2	53/53	100	6.92	51.1	20	na	mg/kg dw
	2 to 3	10/10	100	9	32	20	na	mg/kg dw
	3 to 4	9/9	100	6 J	25	10	na	mg/kg dw
	8 to 9	1/1	100	5	5	5	na	mg/kg dw
Potassium	0 to 1	26/26	100	430	3,210	2,000	na	mg/kg dw
	1 to 2	1/1	100	700	700	700	na	mg/kg dw
	2 to 3	4/4	100	600	2,000	1,300	na	mg/kg dw
	3 to 4	1/1	100	370	370	370	na	mg/kg dw
Selenium	0 to 1	0/41	0	nd	nd	4	6 – 20	mg/kg dw
	1 to 2	0/38	0	nd	nd	4	5.0 – 10	mg/kg dw
	2 to 3	1/10	10	8.0	8.0	4	1.0 – 8	mg/kg dw
	3 to 4	0/9	0	nd	nd	3	6.0 – 8	mg/kg dw
	8 to 9	0/1	0	nd	nd	3	6	mg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Silver	0 to 1	15/62	24	0.500	3.0	0.5	0.4 – 1	mg/kg dw
	1 to 2	23/80	29	0.5	2.6	0.5	0.3 – 1	mg/kg dw
	2 to 3	8/19	42	0.060	7.3	0.9	0.40 – 0.5	mg/kg dw
	3 to 4	1/9	11	0.61	0.61	0.2	0.3 – 0.5	mg/kg dw
	4 to 5	1/9	11	1.2	1.2	0.30	0.30 – 0.40	mg/kg dw
	6 to 7	0/5	0	nd	nd	0.18	0.30 – 0.40	mg/kg dw
	8 to 9	0/4	0	nd	nd	0.2	0.30 – 0.40	mg/kg dw
Sodium	0 to 1	25/25	100	1,570 J	16,900 J	9,000	na	mg/kg dw
	2 to 3	3/3	100	1,300	7,100	4,200	na	mg/kg dw
Thallium	0 to 1	0/41	0	nd	nd	4	6 – 24	mg/kg dw
	1 to 2	0/38	0	nd	nd	4	6 – 20	mg/kg dw
	2 to 3	1/10	10	0.080	0.080	4	6.0 – 25	mg/kg dw
	3 to 4	0/9	0	nd	nd	4	6 – 24	mg/kg dw
	8 to 9	0/1	0	nd	nd	3	6	mg/kg dw
Tin	2 to 3	1/1	100	2.0	2.0	2.0	na	mg/kg dw
Vanadium	0 to 1	64/64	100	18	85	59	na	mg/kg dw
	1 to 2	37/37	100	39.6	84.3	62.6	na	mg/kg dw
	2 to 3	9/9	100	47.0	67	56	na	mg/kg dw
	3 to 4	8/8	100	36.1	71.5	45.4	na	mg/kg dw
	8 to 9	1/1	100	37.5	37.5	37.5	na	mg/kg dw
Zinc	0 to 1	86/86	100	18.6	1,260	100	na	mg/kg dw
	1 to 2	80/80	100	20.2	2,050	200	na	mg/kg dw
	2 to 3	19/19	100	22.3	1,770	280	na	mg/kg dw
	3 to 4	9/9	100	18.5	69	34	na	mg/kg dw
	4 to 5	9/9	100	20.8	324 J	101	na	mg/kg dw
	6 to 7	5/5	100	22.0	47.0	30.1	na	mg/kg dw
	8 to 9	4/4	100	17.6	84.7	36.3	na	mg/kg dw
Organometals								
Monobutyltin as ion	0 to 1	3/11	27	6.1	12	4.1	3.9 – 4.0	µg/kg dw
	1 to 2	4/10	40	4.5	13	4.1	3.8 – 4.1	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	3 to 4	0/1	0	nd	nd	1.9	3.8	µg/kg dw
	8 to 9	0/1	0	nd	nd	1.9	3.8	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibutyltin as ion	0 to 1	9/11	82	6.4	72	18	5.7	µg/kg dw
	1 to 2	5/10	50	15	64	17	5.4 – 5.8	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	3 to 4	0/1	0	nd	nd	2.7	5.4	µg/kg dw
	8 to 9	0/1	0	nd	nd	2.7	5.4	µg/kg dw
Tributyltin as ion	0 to 1	11/11	100	5.5	220	92	na	µg/kg dw
	1 to 2	6/14	43	21	350	60	3.6 – 5.4	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	3 to 4	0/1	0	nd	nd	1.8	3.6	µg/kg dw
	8 to 9	0/1	0	nd	nd	1.8	3.6	µg/kg dw
Tetrabutyltin as ion	2 to 3	0/1	0	nd	nd	1.5	3.0	µg/kg dw
PAHs								
1-Methylnaphthalene	0 to 1	2/39	5	20	46	28	20 – 160	µg/kg dw
	1 to 2	2/37	5	44	160	28	19 – 130	µg/kg dw
	2 to 3	1/6	17	120 J	120 J	38	20 – 99	µg/kg dw
	3 to 4	0/8	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
2-Chloronaphthalene	0 to 1	1/64	2	16 J	16 J	57	19 – 310	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	18 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
2-Methylnaphthalene	0 to 1	6/41	15	21	69	31	20 – 180	µg/kg dw
	1 to 2	3/45	7	24	86	20	19 – 130	µg/kg dw
	2 to 3	1/10	10	120 J	120 J	51	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	12	19 – 54	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Acenaphthene	0 to 1	13/64	20	14 J	200	64	20 – 310	µg/kg dw
	1 to 2	11/45	24	13 J	1,400	70	19 – 130	µg/kg dw
	2 to 3	1/10	10	810 J	810 J	120	14 – 400	µg/kg dw
	3 to 4	1/9	11	210	210	32	14 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Acenaphthylene	0 to 1	13/41	32	12 J	280	38	20 – 180	µg/kg dw
	1 to 2	10/45	22	11 J	160	30	18 – 130	µg/kg dw
	2 to 3	1/10	10	10 J	10 J	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Anthracene	0 to 1	43/64	67	14 J	520	110	20 – 280	µg/kg dw
	1 to 2	26/45	58	11 J	1,600	100	19 – 60	µg/kg dw
	2 to 3	2/10	20	35 J	230 J	61	20 – 400	µg/kg dw
	3 to 4	1/9	11	14 J	14 J	10	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Benzo(a)anthracene	0 to 1	56/64	88	12 J	3,600	360	20 – 180	µg/kg dw
	1 to 2	33/45	73	14 J	3,100	300	19 – 39	µg/kg dw
	2 to 3	5/10	50	12 J	440	100	20 – 99	µg/kg dw
	3 to 4	2/9	22	12 J	20	11	19 – 20	µg/kg dw
	4 to 5	1/1	100	50 J	50 J	50	na	µg/kg dw
Benzo(a)pyrene	0 to 1	54/64	84	25	3,100	390	20 – 370	µg/kg dw
	1 to 2	32/45	71	20 J	5,300	300	19 – 39	µg/kg dw
	2 to 3	3/10	30	39 J	390	81	20 – 400	µg/kg dw
	3 to 4	2/9	22	11 J	36 J	14	19 – 34	µg/kg dw
	4 to 5	1/1	100	49 J	49 J	49	na	µg/kg dw
Benzo(b)fluoranthene	0 to 1	60/64	94	13 J	4,100	640	20 – 820	µg/kg dw
	1 to 2	33/45	73	12 J	6,400	400	19 – 39	µg/kg dw
	2 to 3	5/10	50	11 J	950	180	20 – 99	µg/kg dw
	3 to 4	2/9	22	9.9 J	57 J	17	19 – 54	µg/kg dw
	4 to 5	1/1	100	60 J	60 J	60	na	µg/kg dw
Benzo(g,h,i)perylene	0 to 1	49/64	77	16 J	910	180	20 – 370	µg/kg dw
	1 to 2	26/43	60	12 J	1,000	90	19 – 60	µg/kg dw
	2 to 3	1/10	10	130	130	48	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	1/1	100	34 J	34 J	34	na	µg/kg dw
Benzo(k)fluoranthene	0 to 1	56/64	88	11 J	3,500	420	20 – 180	µg/kg dw
	1 to 2	33/45	73	12 J	3,800	300	19 – 39	µg/kg dw
	2 to 3	4/10	40	10 J	360	84	20 – 400	µg/kg dw
	3 to 4	2/9	22	13 J	32 J	15	19 – 54	µg/kg dw
	4 to 5	1/1	100	38 J	38 J	38	na	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Benzofluoranthenes (total-calc'd)	0 to 1	60/64	94	24 J	7,600	1,100	nc	µg/kg dw
	1 to 2	33/45	73	24 J	10,200	800	nc	µg/kg dw
	2 to 3	5/10	50	21 J	950	230	nc	µg/kg dw
	3 to 4	2/9	22	23 J	89 J	22	nc	µg/kg dw
	4 to 5	1/1	100	98 J	98 J	98	na	µg/kg dw
Chrysene	0 to 1	57/64	89	12 J	4,300	500	20 – 180	µg/kg dw
	1 to 2	34/45	76	13 J	4,800	400	19.0 – 39	µg/kg dw
	2 to 3	6/10	60	14 J	460	110	20 – 99	µg/kg dw
	3 to 4	2/9	22	12 J	30	12	19 – 20	µg/kg dw
	4 to 5	1/1	100	59 J	59 J	59	na	µg/kg dw
Dibenzo(a,h)anthracene	0 to 1	31/64	48	12 J	660 J	170	20 – 910	µg/kg dw
	1 to 2	9/45	20	11 J	360	30	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	40	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	12	19 – 54	µg/kg dw
	4 to 5	1/1	100	18	18	18	na	µg/kg dw
Dibenzofuran	0 to 1	5/64	8	20	120	63	20 – 310	µg/kg dw
	1 to 2	5/45	11	26	1,200	50	19 – 130	µg/kg dw
	2 to 3	1/10	10	250 J	250 J	63	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Fluoranthene	0 to 1	59/64	92	36	8,100	980	54 – 340	µg/kg dw
	1 to 2	37/45	82	16 J	5,600	600	19.0 – 20.0	µg/kg dw
	2 to 3	7/10	70	40	1,300 J	320	20	µg/kg dw
	3 to 4	3/9	33	14 J	58	19	19 – 20	µg/kg dw
	4 to 5	1/1	100	110	110	110	na	µg/kg dw
Fluorene	0 to 1	15/64	23	19 J	180	67	20 – 310	µg/kg dw
	1 to 2	10/45	22	20	1,900	80	18 – 130	µg/kg dw
	2 to 3	1/10	10	290 J	290 J	67	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Indeno(1,2,3-cd)pyrene	0 to 1	53/64	83	19 J	1,000	230	20 – 330	µg/kg dw
	1 to 2	26/43	60	13 J	1,500	100	19 – 60	µg/kg dw
	2 to 3	1/10	10	130	130	48	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Naphthalene	0 to 1	9/42	21	14 J	120	34	9.9 – 180	µg/kg dw
	1 to 2	9/46	20	15 J	370	40	8.3 – 130	µg/kg dw
	2 to 3	1/11	9	330 J	330 J	66	9.2 – 400	µg/kg dw
	3 to 4	0/10	0	nd	nd	11	7.8 – 54	µg/kg dw
	4 to 5	0/2	0	nd	nd	19	8.3 – 66	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	9 to 10	1/1	100	18	18	18	na	µg/kg dw
Phenanthrene	0 to 1	54/64	84	12 J	1,400	280	58 – 180	µg/kg dw
	1 to 2	34/45	76	16 J	3,700	300	19 – 20.0	µg/kg dw
	2 to 3	4/10	40	20	960 J	140	20 – 400	µg/kg dw
	3 to 4	2/9	22	10 J	29	12	19 – 20	µg/kg dw
	4 to 5	1/1	100	47 J	47 J	47	na	µg/kg dw
Pyrene	0 to 1	59/64	92	38	6,700	880	35 – 170	µg/kg dw
	1 to 2	37/45	82	13 J	9,200	800	19 – 20.0	µg/kg dw
	2 to 3	7/10	70	28	1,300	280	20	µg/kg dw
	3 to 4	4/9	44	11 J	90	23	19 – 20	µg/kg dw
	4 to 5	1/1	100	160	160	160	na	µg/kg dw
Total HPAH	0 to 1	60/64	94	122 J	34,700	4,600	nc	µg/kg dw
	1 to 2	38/45	84	13 J	40,000	3,000	nc	µg/kg dw
	2 to 3	7/10	70	115 J	4,400	1,100	nc	µg/kg dw
	3 to 4	4/9	44	21 J	323 J	63	nc	µg/kg dw
	4 to 5	1/1	100	580 J	580 J	580	na	µg/kg dw
Total LPAH	0 to 1	54/64	84	12 J	2,100 J	410	nc	µg/kg dw
	1 to 2	34/45	76	24 J	7,500	500	nc	µg/kg dw
	2 to 3	4/10	40	20	2,630 J	310	nc	µg/kg dw
	3 to 4	2/9	22	43 J	220 J	39	nc	µg/kg dw
	4 to 5	1/1	100	47 J	47 J	47	na	µg/kg dw
Carcinogenic PAHs - Mammal	0 to 1	60/64	94	19 J	4,400	620	18 – 400	µg/kg dw
	1 to 2	34/45	76	19 J	7,000	460	17 – 35	µg/kg dw
	2 to 3	6/10	60	18	530	130	18 – 90	µg/kg dw
	3 to 4	2/9	22	19 J	52 J	16	17 – 36	µg/kg dw
	4 to 5	1/1	100	75 J	75 J	75	na	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total PAH	0 to 1	61/64	95	24	36,200	5,000	nc	µg/kg dw
	1 to 2	38/45	84	13 J	42,600 J	4,000	nc	µg/kg dw
	2 to 3	7/10	70	135 J	5,000 J	1,400	nc	µg/kg dw
	3 to 4	4/9	44	21 J	366 J	92	nc	µg/kg dw
	4 to 5	1/1	100	630 J	630 J	630	na	µg/kg dw
Phthalates								
Bis(2-ethylhexyl)phthalate	0 to 1	44/64	69	22	2,100	610	27 – 1,400	µg/kg dw
	1 to 2	24/45	53	13 J	3,900	400	19 – 400	µg/kg dw
	2 to 3	7/10	70	20 J	820	160	20 – 59	µg/kg dw
	3 to 4	2/9	22	17 J	24	12	19 – 20	µg/kg dw
	4 to 5	1/1	100	290	290	290	na	µg/kg dw
Butyl benzyl phthalate	0 to 1	33/41	80	5.9	610	64	5.9 – 180	µg/kg dw
	1 to 2	22/45	49	14	400	40	5.8 – 36	µg/kg dw
	2 to 3	3/10	30	6.6	10	30	5.9 – 400	µg/kg dw
	3 to 4	2/9	22	6.4	7.7	4.6	5.8 – 20	µg/kg dw
	4 to 5	1/1	100	18	18	18	na	µg/kg dw
Diethyl phthalate	0 to 1	1/64	2	2,700	2,700	100	20 – 310	µg/kg dw
	1 to 2	0/45	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Dimethyl phthalate	0 to 1	3/41	7	13 J	1,700	69	13 – 180	µg/kg dw
	1 to 2	1/45	2	16 J	16 J	20	12 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	38	14 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.5	14 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	3.3	6.6	µg/kg dw
Di-n-butyl phthalate	0 to 1	11/41	27	10 J	200	37	20 – 180	µg/kg dw
	1 to 2	8/45	18	11 J	140	30	19 – 180	µg/kg dw
	2 to 3	5/10	50	13 J	280	76	20 – 400	µg/kg dw
	3 to 4	4/9	44	11 J	94	28	19 – 25	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Di-n-octyl phthalate	0 to 1	2/64	3	25	2,000	250	19 – 1,600	µg/kg dw
	1 to 2	2/45	4	79 J	220	30	18 – 110	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Other SVOCs								
1,2,4-Trichlorobenzene	0 to 1	5/42	12	3.6 J	18 J	6.7	5.8 – 180	µg/kg dw
	1 to 2	6/46	13	4.1 J	17 J	5	5.8 – 20.0	µg/kg dw
	2 to 3	0/11	0	nd	nd	26	5.9 – 400	µg/kg dw
	3 to 4	0/10	0	nd	nd	3.7	5.8 – 20	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.7	6.6 – 8.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw
1,2-Dichlorobenzene	0 to 1	4/42	10	1.7 J	17	6.0	2.0 – 180	µg/kg dw
	1 to 2	4/46	9	2.9 J	9.6	5	0.78 – 20.0	µg/kg dw
	2 to 3	0/11	0	nd	nd	25	0.86 – 400	µg/kg dw
	3 to 4	0/10	0	nd	nd	2.5	0.86 – 6.0	µg/kg dw
	4 to 5	1/2	50	10	10	5.4	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,2-Diphenylhydrazine	0 to 1	1/24	4	100 J	100 J	110	64 – 310	µg/kg dw
	1 to 2	0/1	0	nd	nd	30	60	µg/kg dw
	2 to 3	0/1	0	nd	nd	33	66	µg/kg dw
	3 to 4	0/1	0	nd	nd	33	66	µg/kg dw
1,3-Dichlorobenzene	0 to 1	0/42	0	nd	nd	27	0.83 – 180	µg/kg dw
	1 to 2	0/42	0	nd	nd	20	0.78 – 130	µg/kg dw
	2 to 3	0/11	0	nd	nd	34	0.86 – 400	µg/kg dw
	3 to 4	0/10	0	nd	nd	8.0	0.86 – 20	µg/kg dw
	4 to 5	0/2	0	nd	nd	2.1	1.7 – 6.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,4-Dichlorobenzene	0 to 1	15/42	36	3.0 J	750 J	25	2.0 – 180	µg/kg dw
	1 to 2	9/46	20	3.5 J	17 J	5	1.7 – 20	µg/kg dw
	2 to 3	2/11	18	2.1 J	3.0 J	25	1.8 – 400	µg/kg dw
	3 to 4	0/10	0	nd	nd	2.5	0.86 – 6.0	µg/kg dw
	4 to 5	1/2	50	7.9	7.9	4.4	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
2,4,5-Trichlorophenol	0 to 1	0/41	0	nd	nd	140	98 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	97 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	200	98 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	51	96 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
2,4,6-Trichlorophenol	0 to 1	0/41	0	nd	nd	140	98 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	97 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	200	98 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	51	96 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
2,4-Dichlorophenol	0 to 1	0/41	0	nd	nd	130	33 – 780	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	30 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	140	34 – 1,200	µg/kg dw
	3 to 4	0/9	0	nd	nd	45	34 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
2,4-Dimethylphenol	0 to 1	2/41	5	25 J	27 J	9.8	5.8 – 350	µg/kg dw
	1 to 2	3/45	7	9.5 J	14 J	6	5.8 – 30	µg/kg dw
	2 to 3	0/10	0	nd	nd	58	5.9 – 790	µg/kg dw
	3 to 4	0/9	0	nd	nd	5.1	5.8 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	3.3	6.6	µg/kg dw
2,4-Dinitrophenol	0 to 1	0/41	0	nd	nd	280	64 – 1,800	µg/kg dw
	1 to 2	0/41	0	nd	nd	200	60 – 1,300	µg/kg dw
	2 to 3	0/10	0	nd	nd	380	66 – 4,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	91	66 – 200	µg/kg dw
	4 to 5	0/1	0	nd	nd	330	660	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
2,4-Dinitrotoluene	0 to 1	0/41	0	nd	nd	140	13 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	12 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	14 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	44	14 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
2,6-Dinitrotoluene	0 to 1	0/41	0	nd	nd	140	13 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	12 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	14 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	44	14 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
2-Chlorophenol	0 to 1	0/41	0	nd	nd	28	20 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	41	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	12	19 – 66	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
2-Methylphenol	0 to 1	10/41	24	3.0 J	160	11	5.8 – 180	µg/kg dw
	1 to 2	4/45	9	9.3 J	16 J	6	5.8 – 30	µg/kg dw
	2 to 3	0/10	0	nd	nd	34	5.9 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	4.5	5.8 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	3.3	6.6	µg/kg dw
2-Nitroaniline	0 to 1	0/41	0	nd	nd	140	98 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	97 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	98 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	51	96 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
2-Nitrophenol	0 to 1	0/41	0	nd	nd	140	33 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	30 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	34 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	45	34 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
3,3'-Dichlorobenzidine	0 to 1	0/41	0	nd	nd	140	33 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	30 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	34 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	45	34 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
3-Nitroaniline	0 to 1	0/41	0	nd	nd	140	98 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	97 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	200	98 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	51	96 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
4,6-Dinitro-o-cresol	0 to 1	0/41	0	nd	nd	280	64 – 1,800	µg/kg dw
	1 to 2	0/41	0	nd	nd	200	60 – 1,300	µg/kg dw
	2 to 3	0/10	0	nd	nd	380	66 – 4,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	91	66 – 200	µg/kg dw
	4 to 5	0/1	0	nd	nd	330	660	µg/kg dw
4-Bromophenyl phenyl ether	0 to 1	0/41	0	nd	nd	28	13 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	12 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	14 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.5	14 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
4-Chloro-3-methylphenol	0 to 1	0/41	0	nd	nd	130	64 – 780	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	39.0 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	110	40 – 790	µg/kg dw
	3 to 4	0/9	0	nd	nd	47	66 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
4-Chloroaniline	0 to 1	2/50	4	47 J	230 J	130	98 – 780	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	59.0 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	140	60 – 1,200	µg/kg dw
	3 to 4	0/9	0	nd	nd	47	66 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
4-Chlorophenyl phenyl ether	0 to 1	0/41	0	nd	nd	28	19 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	18 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
4-Methylphenol	0 to 1	2/64	3	17 J	42 J	59	20 – 310	µg/kg dw
	1 to 2	1/45	2	24	24	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
4-Nitroaniline	0 to 1	0/41	0	nd	nd	140	98 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	97 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	98 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	51	96 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
4-Nitrophenol	0 to 1	0/41	0	nd	nd	140	64 – 890	µg/kg dw
	1 to 2	0/41	0	nd	nd	110	60 – 650	µg/kg dw
	2 to 3	0/10	0	nd	nd	190	66 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	47	66 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw
Aniline	0 to 1	0/49	0	nd	nd	39	20 – 230	µg/kg dw
	1 to 2	0/38	0	nd	nd	24	19 – 130	µg/kg dw
	2 to 3	0/7	0	nd	nd	22	20 – 99	µg/kg dw
	3 to 4	0/9	0	nd	nd	12	19 – 66	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Benzaldehyde	0 to 1	10/23	43	110 J	320	200	130 – 290	µg/kg dw
Benzoic acid	0 to 1	40/64	62	52 J	2,000 J	580	59 – 2,700	µg/kg dw
	1 to 2	23/45	51	48 J	450 J	100	59 – 200	µg/kg dw
	2 to 3	5/10	50	66	110 J	310	100 – 4,000	µg/kg dw
	3 to 4	6/9	67	35 J	130	62	58 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	300	590	µg/kg dw
Benzyl alcohol	0 to 1	10/41	24	18 J	200	43	29 – 890	µg/kg dw
	1 to 2	7/45	16	19 J	210	20	19 – 99	µg/kg dw
	2 to 3	0/10	0	nd	nd	140	29 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	15	29 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	17	33	µg/kg dw
bis(2-chloroethoxy)methane	0 to 1	0/41	0	nd	nd	28	20 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	40	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
bis(2-chloroethyl)ether	0 to 1	0/41	0	nd	nd	28	19 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	18 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	44	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	9.8	19 – 20	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
bis(2-chloroisopropyl)ether	0 to 1	0/41	0	nd	nd	28	20 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	42	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	12	19 – 66	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Caprolactam	0 to 1	0/23	0	nd	nd	600	670 – 1,600	µg/kg dw
Carbazole	0 to 1	5/25	20	78.0	240 J	120	130 – 280	µg/kg dw
	1 to 2	0/4	0	nd	nd	10	20.0 – 30	µg/kg dw
	2 to 3	0/4	0	nd	nd	69	20 – 400	µg/kg dw
	3 to 4	0/1	0	nd	nd	17	34	µg/kg dw
Coprostanol	0 to 1	0/1	0	nd	nd	65	130	µg/kg dw
	1 to 2	0/1	0	nd	nd	60	120	µg/kg dw
	2 to 3	0/1	0	nd	nd	70	140	µg/kg dw
	3 to 4	0/1	0	nd	nd	70	140	µg/kg dw
Hexachlorobenzene	0 to 1	1/41	2	5.9	5.9	5.0	0.83 – 180	µg/kg dw
	1 to 2	1/45	2	10	10	4	0.78 – 20.0	µg/kg dw
	2 to 3	0/10	0	nd	nd	28	0.86 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	2.1	0.86 – 6.0	µg/kg dw
	4 to 5	0/1	0	nd	nd	3.3	6.6	µg/kg dw
Hexachlorobutadiene	0 to 1	0/42	0	nd	nd	7.3	0.98 – 350	µg/kg dw
	1 to 2	0/46	0	nd	nd	4	0.98 – 30	µg/kg dw
	2 to 3	0/11	0	nd	nd	49	5.9 – 790	µg/kg dw
	3 to 4	0/10	0	nd	nd	3.9	0.96 – 34	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.7	6.6 – 8.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	9 to 10	1/1	100	13	13	13	na	µg/kg dw
Hexachlorocyclopentadiene	0 to 1	0/62	0	nd	nd	290	98 – 1,400	µg/kg dw
	1 to 2	0/40	0	nd	nd	110	97 – 650	µg/kg dw
	2 to 3	0/9	0	nd	nd	210	98 – 2,000	µg/kg dw
	3 to 4	0/8	0	nd	nd	49	96 – 99	µg/kg dw
	4 to 5	0/1	0	nd	nd	170	330	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
Hexachloroethane	0 to 1	0/41	0	nd	nd	30	20 – 350	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	64	20 – 790	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Isophorone	0 to 1	0/64	0	nd	nd	59	20 – 310	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Methyl isobutyl ketone	0 to 1	0/4	0	nd	nd	3.7	5.9 – 9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/3	0	nd	nd	3.9	6.8 – 9.2	µg/kg dw
	3 to 4	0/2	0	nd	nd	3.6	6.7 – 7.8	µg/kg dw
	4 to 5	0/2	0	nd	nd	9.1	8.3 – 28	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.7	9.4	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw
Nitrobenzene	0 to 1	0/41	0	nd	nd	28	20 – 180	µg/kg dw
	1 to 2	0/41	0	nd	nd	20	19 – 130	µg/kg dw
	2 to 3	0/10	0	nd	nd	39	20 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	11	19 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
N-Nitrosodimethylamine	0 to 1	0/40	0	nd	nd	19	29 – 130	µg/kg dw
	1 to 2	0/38	0	nd	nd	20	29 – 120	µg/kg dw
	2 to 3	0/7	0	nd	nd	23	29 – 140	µg/kg dw
	3 to 4	0/9	0	nd	nd	21	29 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	17	33	µg/kg dw
N-Nitroso-di-n-propylamine	0 to 1	3/41	7	30	320	28	29 – 180	µg/kg dw
	1 to 2	2/41	5	21 J	70	21	29 – 99	µg/kg dw
	2 to 3	0/10	0	nd	nd	42	29 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	15	29 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	17	33	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
N-Nitrosodiphenylamine	0 to 1	1/41	2	33	33	24	8.2 – 320	µg/kg dw
	1 to 2	0/45	0	nd	nd	30	5.8 – 620	µg/kg dw
	2 to 3	0/10	0	nd	nd	48	5.9 – 400	µg/kg dw
	3 to 4	0/9	0	nd	nd	6.0	5.8 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	16	32	µg/kg dw
Pentachlorophenol	0 to 1	15/64	23	16 J	930 J	430	29 – 3,100	µg/kg dw
	1 to 2	8/45	18	17 J	120 J	28	29 – 100	µg/kg dw
	2 to 3	1/10	10	26 J	26 J	140	29 – 2,000	µg/kg dw
	3 to 4	0/9	0	nd	nd	15	29 – 34	µg/kg dw
	4 to 5	0/1	0	nd	nd	17	33	µg/kg dw
Phenol	0 to 1	17/64	27	14 J	3,100	130	20 – 350	µg/kg dw
	1 to 2	9/45	20	15 J	150	30	19 – 130	µg/kg dw
	2 to 3	1/10	10	13 J	13 J	69	20 – 790	µg/kg dw
	3 to 4	2/9	22	13 J	13 J	17	19 – 140	µg/kg dw
	4 to 5	0/1	0	nd	nd	33	66	µg/kg dw
Retene	0 to 1	18/23	78	120 J	300 J	200	300 – 370	µg/kg dw
Polychlorinated biphenyls								
PCB-018	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-044	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-055	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-066	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-077	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-081	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-101	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-105	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-114	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-118	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-123	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-126	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-128	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-138	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-153	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-156	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-157	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-167	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
PCB-169	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-170	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-180	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-187	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-189	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-195	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-206	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
PCB-209	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
Aroclor-1016	0 to 1	0/96	0	nd	nd	170	3.9 – 14,000	µg/kg dw
	1 to 2	0/101	0	nd	nd	20	3.8 – 440	µg/kg dw
	2 to 3	0/104	0	nd	nd	50	0.10 – 2,800	µg/kg dw
	3 to 4	0/49	0	nd	nd	10	3.8 – 190	µg/kg dw
	4 to 5	0/57	0	nd	nd	27	3.9 – 1,100	µg/kg dw
	5 to 6	0/18	0	nd	nd	20	3.9 – 350	µg/kg dw
	6 to 7	0/21	0	nd	nd	10	17 – 39	µg/kg dw
	7 to 8	0/5	0	nd	nd	9.7	19 – 20	µg/kg dw
	8 to 9	0/10	0	nd	nd	9.6	3.9 – 39	µg/kg dw
Aroclor-1221	0 to 1	0/117	0	nd	nd	220	3.9 – 27,000	µg/kg dw
	1 to 2	0/101	0	nd	nd	20	3.8 – 440	µg/kg dw
	2 to 3	0/99	0	nd	nd	60	0.10 – 1,900	µg/kg dw
	3 to 4	0/49	0	nd	nd	20	3.8 – 380	µg/kg dw
	4 to 5	0/56	0	nd	nd	40	3.9 – 760	µg/kg dw
	5 to 6	0/18	0	nd	nd	20	3.9 – 120	µg/kg dw
	6 to 7	0/21	0	nd	nd	18	19 – 78	µg/kg dw
	7 to 8	0/5	0	nd	nd	15	19 – 39	µg/kg dw
	8 to 9	0/9	0	nd	nd	16	3.9 – 40	µg/kg dw
Aroclor-1232	0 to 1	0/117	0	nd	nd	140	3.9 – 14,000	µg/kg dw
	1 to 2	0/101	0	nd	nd	20	3.8 – 440	µg/kg dw
	2 to 3	0/99	0	nd	nd	30	0.10 – 930	µg/kg dw
	3 to 4	0/49	0	nd	nd	10	3.8 – 190	µg/kg dw
	4 to 5	0/56	0	nd	nd	53	3.9 – 3,800	µg/kg dw
	5 to 6	0/18	0	nd	nd	30	3.9 – 810	µg/kg dw
	6 to 7	0/21	0	nd	nd	10	17 – 39	µg/kg dw
	7 to 8	0/5	0	nd	nd	9.7	19 – 20	µg/kg dw
	8 to 9	0/9	0	nd	nd	8.6	3.9 – 20	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
Aroclor-1242	0 to 1	21/118	18	5.2	820	150	3.9 – 14,000	µg/kg dw
	1 to 2	6/93	6	16	810	32	3.8 – 440	µg/kg dw
	2 to 3	4/99	4	44	2,300	70	0.10 – 2,800	µg/kg dw
	3 to 4	0/45	0	nd	nd	10	3.8 – 190	µg/kg dw
	4 to 5	1/57	2	160	160	40	14.6 – 2,300	µg/kg dw
	5 to 6	0/17	0	nd	nd	22	7.7 – 460	µg/kg dw
	6 to 7	0/21	0	nd	nd	10	17 – 39	µg/kg dw
	7 to 8	0/5	0	nd	nd	9.7	19 – 20	µg/kg dw
	8 to 9	0/10	0	nd	nd	9.6	3.9 – 39	µg/kg dw
Aroclor-1248	0 to 1	55/118	47	5.1	13,000	350	3.9 – 14,000	µg/kg dw
	1 to 2	53/101	52	5.0	1,500	100	3.8 – 570	µg/kg dw
	2 to 3	28/104	27	14 J	7,200	400	0.10 – 6,000	µg/kg dw
	3 to 4	9/49	18	97	2,500	100	3.8 – 190	µg/kg dw
	4 to 5	4/57	7	46.1	190	52	3.9 – 2,600	µg/kg dw
	5 to 6	2/18	11	63.2	110	50	3.9 – 1,200	µg/kg dw
	6 to 7	3/21	14	420	710	86	17 – 39	µg/kg dw
	7 to 8	2/5	40	82	370	96	19 – 20	µg/kg dw
	8 to 9	1/10	10	110	110	20	3.9 – 39	µg/kg dw
Aroclor-1254	0 to 1	86/101	85	5.7	81,000	1,500	6.7 – 15,000	µg/kg dw
	1 to 2	80/101	79	8.5 J	3,300	300	3.8 – 20	µg/kg dw
	2 to 3	61/104	59	4 J	26,000	1,000	0.10 – 2,000	µg/kg dw
	3 to 4	35/49	71	0.52 J	4,300	400	3.8 – 430	µg/kg dw
	4 to 5	20/57	35	24 J	4,800	210	18 – 200	µg/kg dw
	5 to 6	10/18	56	22	4,100	270	18 – 92	µg/kg dw
	6 to 7	4/21	19	34	1,300	150	17 – 100	µg/kg dw
	7 to 8	2/5	40	300	380	140	19 – 20	µg/kg dw
	8 to 9	2/10	20	260 J	360	69	3.9 – 20	µg/kg dw
Aroclor-1254/1260	0 to 1	16/17	94	34	1,700	190	85	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Aroclor-1260	0 to 1	79/101	78	7.8	51,000	1,900	6.9 – 3,400	µg/kg dw
	1 to 2	72/101	71	5.6	2,000	100	3.8 – 210	µg/kg dw
	2 to 3	67/104	64	6.3 J	26,000	820	0.10 – 1,800	µg/kg dw
	3 to 4	31/49	63	35.4	6,600	300	3.8 – 510	µg/kg dw
	4 to 5	23/57	40	16	6,400	390	18 – 380	µg/kg dw
	5 to 6	11/18	61	21.6	640	100	17 – 52	µg/kg dw
	6 to 7	6/21	29	21	610	80	17 – 300	µg/kg dw
	7 to 8	2/5	40	160	160	70	19 – 20	µg/kg dw
	8 to 9	2/10	20	25	220	32	3.9 – 39	µg/kg dw
Aroclor-1262	0 to 1	0/22	0	nd	nd	5.3	6.5 – 23	µg/kg dw
	8 to 9	1/1	100	120 J	120 J	120	na	µg/kg dw
Aroclor-1268	0 to 1	0/22	0	nd	nd	5.3	6.5 – 23	µg/kg dw
Total PCBs	0 to 1	114/118	97	13.5	108,000	3,000	nc	µg/kg dw
	1 to 2	83/101	82	19.6	6,500	500	nc	µg/kg dw
	2 to 3	75/104	72	4 J	32,000	2,000	nc	µg/kg dw
	3 to 4	36/49	73	0.52 J	9,100	810	nc	µg/kg dw
	4 to 5	26/57	46	23	6,400	600	nc	µg/kg dw
	5 to 6	13/18	72	22	4,700	370	nc	µg/kg dw
	6 to 7	6/21	29	21	2,400	310	nc	µg/kg dw
	7 to 8	2/5	40	540	910	300	nc	µg/kg dw
	8 to 9	3/10	30	25	690	120	nc	µg/kg dw
Organochlorine pesticides								
2,4'-DDD	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
2,4'-DDE	0 to 1	0/10	0	nd	nd	11	2.0 – 100	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.6	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
2,4'-DDT	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
4,4'-DDD	0 to 1	1/11	9	2.7	2.7	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/9	0	nd	nd	5.2	1.5 – 26	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	1.6 – 2.0	µg/kg dw
	3 to 4	0/3	0	nd	nd	1.2	1.6 – 3.4	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
4,4'-DDE	0 to 1	1/11	9	5.1 J	5.1 J	7.3	2.0 – 90	µg/kg dw
	1 to 2	0/9	0	nd	nd	6.1	1.5 – 50	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.92	1.6 – 2.0	µg/kg dw
4,4'-DDT	0 to 1	1/11	9	2.8	2.8	21	2.0 – 160	µg/kg dw
	1 to 2	0/9	0	nd	nd	15	1.5 – 100	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	1.6 – 2.0	µg/kg dw
	3 to 4	0/3	0	nd	nd	5.9	1.6 – 32	µg/kg dw
DDTs (total-calc'd)	0 to 1	1/11	9	10.6 J	10.6 J	22	nc	µg/kg dw
	1 to 2	0/9	0	nd	nd	15	nc	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	nc	µg/kg dw
	3 to 4	0/3	0	nd	nd	5.9	nc	µg/kg dw
Aldrin	0 to 1	0/11	0	nd	nd	1.6	0.98 – 8.7	µg/kg dw
	1 to 2	0/9	0	nd	nd	2.0	0.98 – 9.2	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.59	0.96 – 1.6	µg/kg dw
Dieldrin	0 to 1	1/11	9	1.8	1.8	3.9	2.0 – 31	µg/kg dw
	1 to 2	0/9	0	nd	nd	4.1	1.5 – 18	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	1.6 – 2.0	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.92	1.6 – 2.0	µg/kg dw
Total aldrin/dieldrin	0 to 1	1/11	9	1.8	1.8	3.9	nc	µg/kg dw
	1 to 2	0/9	0	nd	nd	4.1	nc	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	nc	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.92	nc	µg/kg dw
alpha-BHC	0 to 1	0/11	0	nd	nd	1.6	0.98 – 8.7	µg/kg dw
	1 to 2	0/9	0	nd	nd	2.0	0.98 – 9.2	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.59	0.96 – 1.6	µg/kg dw
beta-BHC	0 to 1	0/11	0	nd	nd	1.7	0.98 – 8.7	µg/kg dw
	1 to 2	0/9	0	nd	nd	3.0	0.98 – 24	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.59	0.96 – 1.6	µg/kg dw
gamma-BHC	0 to 1	0/11	0	nd	nd	1.7	0.98 – 8.7	µg/kg dw
	1 to 2	0/9	0	nd	nd	2.0	0.98 – 9.2	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.59	0.96 – 1.6	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
delta-BHC	0 to 1	2/10	20	7.0	23	4.4	0.98 – 8.7	µg/kg dw
	1 to 2	2/8	25	19	60	11	0.98 – 9.2	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.79	0.96 – 2.2	µg/kg dw
alpha-Chlordane	0 to 1	0/10	0	nd	nd	1.7	0.98 – 8.7	µg/kg dw
	1 to 2	0/8	0	nd	nd	2.4	0.98 – 9.2	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.49	0.96 – 0.98	µg/kg dw
gamma-Chlordane	0 to 1	0/10	0	nd	nd	8.8	1.0 – 75	µg/kg dw
	1 to 2	0/8	0	nd	nd	7.4	0.98 – 47	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.1	0.96 – 3.3	µg/kg dw
Chlordane	0 to 1	1/1	100	29.0	29.0	29.0	na	µg/kg dw
	1 to 2	0/1	0	nd	nd	3.8	7.5	µg/kg dw
	2 to 3	0/1	0	nd	nd	4.2	8.4	µg/kg dw
	3 to 4	0/1	0	nd	nd	4.2	8.4	µg/kg dw
alpha-Endosulfan	0 to 1	0/10	0	nd	nd	1.7	0.98 – 8.7	µg/kg dw
	1 to 2	0/8	0	nd	nd	2.2	0.98 – 9.2	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	1.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.49	0.96 – 0.98	µg/kg dw
beta-Endosulfan	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.5	2.0 – 18	µg/kg dw
	2 to 3	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
Endosulfan	0 to 1	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.75	1.5	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
Endosulfan sulfate	0 to 1	0/10	0	nd	nd	5.6	2.0 – 39	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.7	2.0 – 18	µg/kg dw
	2 to 3	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
Endrin	0 to 1	0/11	0	nd	nd	14	1.6 – 140	µg/kg dw
	1 to 2	0/9	0	nd	nd	8.0	1.5 – 86	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	1.6 – 2.0	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.92	1.6 – 2.0	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Endrin aldehyde	0 to 1	0/11	0	nd	nd	3.2	1.6 – 17	µg/kg dw
	1 to 2	0/9	0	nd	nd	4.6	1.5 – 23	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.90	1.6 – 2.0	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.92	1.6 – 2.0	µg/kg dw
Endrin ketone	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	2 to 3	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
Heptachlor	0 to 1	0/11	0	nd	nd	1.7	0.98 – 8.7	µg/kg dw
	1 to 2	0/9	0	nd	nd	2.0	0.98 – 9.2	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.59	0.96 – 1.6	µg/kg dw
Heptachlor epoxide	0 to 1	0/11	0	nd	nd	8.9	0.98 – 95	µg/kg dw
	1 to 2	0/9	0	nd	nd	5.3	0.99 – 62	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.65	1.0 – 1.6	µg/kg dw
	3 to 4	0/3	0	nd	nd	0.59	0.96 – 1.6	µg/kg dw
Methoxychlor	0 to 1	0/11	0	nd	nd	16	8.1 – 87	µg/kg dw
	1 to 2	0/9	0	nd	nd	20	7.5 – 92	µg/kg dw
	2 to 3	0/2	0	nd	nd	2.4	1.0 – 8.4	µg/kg dw
	3 to 4	0/3	0	nd	nd	4.6	8.4 – 9.8	µg/kg dw
Mirex	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
Cis-Nonachlor	0 to 1	0/10	0	nd	nd	3.5	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
Oxychlordane	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw
Toxaphene	0 to 1	0/11	0	nd	nd	160	16 – 870	µg/kg dw
	1 to 2	0/9	0	nd	nd	190	15 – 920	µg/kg dw
	2 to 3	0/2	0	nd	nd	6.5	10 – 16	µg/kg dw
	3 to 4	0/3	0	nd	nd	35	16 – 98	µg/kg dw
Trans-Nonachlor	0 to 1	0/10	0	nd	nd	3.4	2.0 – 17	µg/kg dw
	1 to 2	0/8	0	nd	nd	4.3	2.0 – 18	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.98	1.9 – 2.0	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total chlordane	0 to 1	0/10	0	nd	nd	9.2	nc	µg/kg dw
	1 to 2	0/8	0	nd	nd	7.9	nc	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.50	nc	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.3	nc	µg/kg dw
Grain size								
Fractional % (>9525 µm)	2 to 3	0/1	0	nd	nd	0.0050	0.010	% dw
	0 to 1	48/59	81	0.100 J	30.9	3	0.100	% dw
	1 to 2	49/58	84	0.100 J	44.4	3	0.100	% dw
	2 to 3	7/7	100	0.1	24.6 J	4	na	% dw
	3 to 4	10/10	100	0.1	40.6	8	na	% dw
Fractional % phi -2-(-1) (2000-4000 µm)	2 to 3	1/1	100	0.010	0.010	0.010	na	% dw
Fractional % phi -1-0 (1000-2000 µm)	0 to 1	74/74	100	0.1	10.7	2	na	% dw
	1 to 2	57/60	95	0.1	5.1	1	0.1	% dw
	2 to 3	11/11	100	0.010 J	10	2	na	% dw
	3 to 4	10/10	100	0.1	6.4	3	na	% dw
	4 to 5	0/1	0	nd	nd	0.0050	0.010	% dw
Fractional % phi 0-1 (500-1000 µm)	0 to 1	74/74	100	0.800 J	31.2	5	na	% dw
	1 to 2	59/59	100	0.2	29.9	4	na	% dw
	2 to 3	11/11	100	0.25 J	32	9	na	% dw
	3 to 4	10/10	100	1.7	41.4	10	na	% dw
	4 to 5	1/1	100	11	11	11	na	% dw
	8 to 9	1/1	100	4.0	4.0	4.0	na	% dw
Fractional % phi 1-2 (250-500 µm)	0 to 1	74/74	100	0.600 J	49.3	10	na	% dw
	1 to 2	58/59	98	0.700 J	58.1	9	0.1	% dw
	2 to 3	11/11	100	0.50 J	30	14	na	% dw
	3 to 4	10/10	100	2.9	50	27	na	% dw
	4 to 5	1/1	100	45	45	45	na	% dw
	8 to 9	1/1	100	31	31	31	na	% dw
Fractional % phi 2-3 (125-250 µm)	0 to 1	74/74	100	1.2	33.3	8.4	na	% dw
	1 to 2	59/59	100	0.900 J	36.6	8.4	na	% dw
	2 to 3	11/11	100	3.0 J	38.5	15	na	% dw
	3 to 4	10/10	100	3.9	40.6	19	na	% dw
	4 to 5	1/1	100	14	14	14	na	% dw
	8 to 9	1/1	100	35	35	35	na	% dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Fractional % phi 3-4 (62.5-125 µm)	0 to 1	74/74	100	2.50	30.2	9.9	na	% dw
	1 to 2	60/60	100	1.0	40	12	na	% dw
	2 to 3	11/11	100	2.0	39.4	16	na	% dw
	3 to 4	10/10	100	0.8	42.8	10	na	% dw
	4 to 5	1/1	100	17	17	17	na	% dw
	8 to 9	1/1	100	15	15	15	na	% dw
Fractional % phi 4-5 (31.2-62.5 µm)	0 to 1	74/74	100	0.400 J	25.7 J	12	na	% dw
	1 to 2	60/60	100	0.8	23.6	10	na	% dw
	2 to 3	11/11	100	2.0	27	10	na	% dw
	3 to 4	10/10	100	0.2	23.4	8	na	% dw
	4 to 5	1/1	100	6.0	6.0	6.0	na	% dw
	8 to 9	1/1	100	10	10	10	na	% dw
Fractional % phi 5-6 (15.6-31.2 µm)	0 to 1	74/74	100	0.700	37.1 J	15	na	% dw
	1 to 2	59/59	100	0.1	46.4 J	20	na	% dw
	2 to 3	11/11	100	2.0	24.4 J	10	na	% dw
	3 to 4	8/8	100	0.1	13.6	5	na	% dw
	4 to 5	1/1	100	2.0	2.0	2.0	na	% dw
	8 to 9	1/1	100	1.0	1.0	1.0	na	% dw
Fractional % phi 6-7 (7.8-15.6 µm)	0 to 1	73/74	99	0.600	24.9 J	13	0.010	% dw
	1 to 2	59/59	100	0.1	27.2 J	10	na	% dw
	2 to 3	11/11	100	1.1	20.8 J	7.8	na	% dw
	3 to 4	8/8	100	0.2	6.5	3	na	% dw
	4 to 5	1/1	100	3.0	3.0	3.0	na	% dw
	8 to 9	1/1	100	1.0	1.0	1.0	na	% dw
Fractional % phi 7-8 (3.9-7.8 µm)	0 to 1	74/74	100	0.500	14.8	6.7	na	% dw
	1 to 2	59/59	100	0.1	16.4	7	na	% dw
	2 to 3	11/11	100	1.0	9.3	4.4	na	% dw
	3 to 4	8/8	100	0.1	4.2	2	na	% dw
	4 to 5	1/1	100	1.0	1.0	1.0	na	% dw
Fractional % phi 8-9 (1.95-3.9 µm)	0 to 1	73/74	99	0.300	9.1	4	0.010	% dw
	1 to 2	59/59	100	0.1	10.4	4	na	% dw
	2 to 3	11/11	100	0.5	5.9	3	na	% dw
	3 to 4	7/8	88	0.4 J	2.3	1	0.1	% dw
	4 to 5	0/1	0	nd	nd	0.0050	0.010	% dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Fractional % phi 9-10 (0.98-1.95 µm)	0 to 1	74/74	100	0.200	7.10 J	3	na	% dw
	1 to 2	58/59	98	0.2	7.6	3	0.1	% dw
	2 to 3	11/11	100	0.4 J	3.4	2	na	% dw
	3 to 4	7/8	88	0.1 J	1.3	0.7	0.1	% dw
	4 to 5	0/1	0	nd	nd	0.0050	0.010	% dw
	8 to 9	1/1	100	1.0	1.0	1.0	na	% dw
Fractional % phi 10+ (<0.98 µm)	0 to 1	73/74	99	0.300	16.1	6.2	0.010	% dw
	1 to 2	58/59	98	0.6	17.0	6	0.100	% dw
	2 to 3	11/11	100	0.6 J	7.5	3	na	% dw
	3 to 4	8/8	100	0.5 J	4.3	2	na	% dw
	4 to 5	0/1	0	nd	nd	0.0050	0.010	% dw
Fractional % Sieve #10 (2000-4750 µm)	0 to 1	1/1	100	13	13	13	na	% dw
	2 to 3	1/1	100	3.0	3.0	3.0	na	% dw
	4 to 5	0/1	0	nd	nd	0.0050	0.010	% dw
	8 to 9	1/1	100	1.0	1.0	1.0	na	% dw
Fractional % Sieve 3/8 in. (4,750-9,525 µm)	2 to 3	1/1	100	0.19 J	0.19 J	0.19	na	% dw
Fractional % Sieve #4 (>4750 µm)	0 to 1	1/1	100	56	56	56	na	% dw
	2 to 3	1/1	100	6.0	6.0	6.0	na	% dw
	4 to 5	0/1	0	nd	nd	0.0050	0.010	% dw
	8 to 9	1/1	100	1.0	1.0	1.0	na	% dw
Gravel (total calc'd)	0 to 1	49/60	82	0.100 J	69	4	nc	% dw
	1 to 2	49/58	84	0.100 J	44.4	3	nc	% dw
	2 to 3	9/9	100	0.1	24.6 J	5	na	% dw
	3 to 4	10/10	100	0.1	40.6	8	na	% dw
	4 to 5	0/1	0	nd	nd	0.0050	nc	% dw
	8 to 9	1/1	100	2.0	2.0	2.0	na	% dw
Sand (total calc'd)	0 to 1	75/75	100	10.50 J	89.2	35	na	% dw
	1 to 2	61/61	100	5.8	97.4	35	na	% dw
	2 to 3	12/12	100	28 J	91.0	59	na	% dw
	3 to 4	11/11	100	30.0	99	75	na	% dw
	4 to 5	1/1	100	87	87	87	na	% dw
	8 to 9	1/1	100	85	85	85	na	% dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Silt (total calc'd)	0 to 1	75/75	100	2.600 J	76.7 J	46	na	% dw
	1 to 2	61/61	100	1.1	76.6 J	49	na	% dw
	2 to 3	12/12	100	7.0	61	31	na	% dw
	3 to 4	11/11	100	0.6	45.5	10	na	% dw
	4 to 5	1/1	100	12.0	12.0	12.0	na	% dw
	8 to 9	1/1	100	12	12	12	na	% dw
Clay (total calc'd)	0 to 1	75/75	100	0.8	31.1	10	na	% dw
	1 to 2	60/60	100	0.1	31.9	10	na	% dw
	2 to 3	12/12	100	0.1	16.8	7	na	% dw
	3 to 4	9/9	100	0.1	7.9	3	na	% dw
	4 to 5	0/1	0	nd	nd	0.0050	nc	% dw
	8 to 9	1/1	100	1.0	1.0	1.0	na	% dw
Gravel	0 to 1	1/1	100	27.0	27.0	27.0	na	% dw
	1 to 2	2/2	100	1.70	22.0	11.9	na	% dw
	2 to 3	1/1	100	0.6	0.6	0.6	na	% dw
	3 to 4	1/1	100	2.3	2.3	2.3	na	% dw
Coarse Sand (4750-2000 microns)	1 to 2	1/1	100	2.10	2.10	2.10	na	% dw
Medium Sand (2000-425 microns)	1 to 2	1/1	100	3.10	3.10	3.10	na	% dw
Fine Sand (425-75 microns)	1 to 2	1/1	100	8.30	8.30	8.30	na	% dw
Fines (percent silt+clay)	0 to 1	74/74	100	3.900 J	89.4 J	60	na	% dw
	1 to 2	60/60	100	1.8	94.0	63	na	% dw
	2 to 3	11/11	100	10.0	72	40	na	% dw
	3 to 4	10/10	100	1.2	50.6	18	na	% dw
	4 to 5	1/1	100	12.0	12.0	12.0	na	% dw
	8 to 9	1/1	100	13	13	13	na	% dw
Conventional parameters								
Total Organic Carbon (TOC)	0 to 1	118/118	100	0.0481	6.3	1.9	na	% dw
	1 to 2	101/101	100	0.116	3.93	1.6	na	% dw
	2 to 3	103/103	100	0.022	17	1	na	% dw
	3 to 4	50/50	100	0.030	3.7	1.1	na	% dw
	4 to 5	57/57	100	0.011	4.4	0.9	na	% dw
	5 to 6	18/18	100	0.07	3.1	1	na	% dw
	6 to 7	21/21	100	0.023	2.3	0.8	na	% dw
	7 to 8	5/5	100	0.089	0.96	0.45	na	% dw
	8 to 9	10/10	100	0.028	2.1	0.39	na	% dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total solids	0 to 1	118/118	100	42.60	88.5	59	na	% ww
	1 to 2	86/86	100	37.40	89.50	61.8	na	% ww
	2 to 3	83/83	100	26.0	92.60	73.4	na	% ww
	3 to 4	35/35	100	53.90	87.2	76.2	na	% ww
	4 to 5	56/56	100	57.40	86.9	76.5	na	% ww
	5 to 6	18/18	100	58.40	85.9	73.5	na	% ww
	6 to 7	22/22	100	53.90	87.6	75.9	na	% ww
	7 to 8	6/6	100	52.80	87.3	76.7	na	% ww
	8 to 9	10/10	100	51.11	89.1	77.0	na	% ww
	9 to 10	1/1	100	59.29	59.29	59.29	na	% ww
Sulfides (total)	0 to 1	0/1	0	nd	nd	0.55	1.1	mg/kg dw
	2 to 3	0/1	0	nd	nd	0.65	1.3	mg/kg dw
Cyanide	0 to 1	0/1	0	nd	nd	0.070	0.14	mg/kg dw
	2 to 3	1/1	100	0.35	0.35	0.35	na	mg/kg dw
Moisture	0 to 1	18/18	100	31.22	121.6	75.49	na	% dw
	1 to 2	1/1	100	81.6	81.6	81.6	na	% ww
	1 to 2	22/22	100	23.41	161.7	65.29	na	% dw
	2 to 3	4/4	100	22.31	48.20	36.61	na	% dw
	3 to 4	1/1	100	30.90	30.90	30.90	na	% dw
pH	0 to 1	1/1	100	8.1	8.1	8.1	na	pH
	2 to 3	1/1	100	7.3	7.3	7.3	na	pH
Specific Gravity	0 to 1	18/18	100	2.56	2.69	2.64	na	g/cc
	1 to 2	22/22	100	2.37	2.71	2.6	na	g/cc
	2 to 3	4/4	100	2.64	2.69	2.67	na	g/cc
	3 to 4	1/1	100	2.69	2.69	2.69	na	g/cc
Volatile organic compounds								
1,1,1,2-Tetrachloroethane	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	RL or Range of RLs	Unit
1,1,1-Trichloroethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,1,2,2-Tetrachloroethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,1,2-Trichloroethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,1,2-Trichlorotrifluoroethane	0 to 1	0/4	0	nd	nd	1.5	2.3 – 4.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.6	2.7 – 3.7	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.5	2.7 – 3.1	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.6	3.3 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	7 to 8	0/1	0	nd	nd	1.9	3.8	µg/kg dw
	8 to 9	0/1	0	nd	nd	1.9	3.7	µg/kg dw
	9 to 10	0/1	0	nd	nd	1.7	3.4	µg/kg dw
1,1-Dichloroethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,1-Dichloroethene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
1,1-Dichloropropene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,2,3-Trichlorobenzene	0 to 1	0/1	0	nd	nd	5.0	9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/1	0	nd	nd	4.6	9.2	µg/kg dw
	3 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 5	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw
1,2,3-Trichloropropane	0 to 1	0/1	0	nd	nd	2.0	4.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	2 to 3	0/1	0	nd	nd	1.9	3.7	µg/kg dw
	3 to 4	0/1	0	nd	nd	1.6	3.1	µg/kg dw
	4 to 5	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	7 to 8	0/1	0	nd	nd	1.9	3.8	µg/kg dw
	8 to 9	0/1	0	nd	nd	1.9	3.8	µg/kg dw
	9 to 10	0/1	0	nd	nd	1.7	3.4	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
1,2,4-Trimethylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	420	420	420	na	µg/kg dw
1,2-Dibromo-3-chloropropane	0 to 1	0/1	0	nd	nd	5.0	9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/1	0	nd	nd	4.6	9.2	µg/kg dw
	3 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 5	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw
1,2-Dibromoethane (EDB)	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont.   Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
1,2-Dichloroethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,2-Dichloropropane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
1,3,5-Trimethylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	1/1	100	1.9	1.9	1.9	na	µg/kg dw
	9 to 10	1/1	100	180	180	180	na	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,3-Dichloropropane	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
2,2-Dichloropropane	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
2-Chloroethyl vinyl ether	0 to 1	0/4	0	nd	nd	3.7	5.9 – 9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/3	0	nd	nd	3.9	6.8 – 9.2	µg/kg dw
	3 to 4	0/2	0	nd	nd	3.6	6.7 – 7.8	µg/kg dw
	4 to 5	0/2	0	nd	nd	9.1	8.3 – 28	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.7	9.4	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2-Chlorotoluene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
2-Hexanone	0 to 1	0/4	0	nd	nd	3.7	5.9 – 9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/3	0	nd	nd	3.9	6.8 – 9.2	µg/kg dw
	3 to 4	0/2	0	nd	nd	3.6	6.7 – 7.8	µg/kg dw
	4 to 5	0/2	0	nd	nd	9.1	8.3 – 28	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.7	9.4	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw
4-Chlorotoluene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
Acetone	0 to 1	2/4	50	17	59	21	6.6 – 10	µg/kg dw
	1 to 2	1/1	100	40	40	40	na	µg/kg dw
	2 to 3	2/3	67	41	53	32	6.8	µg/kg dw
	3 to 4	1/2	50	38	38	21	6.7	µg/kg dw
	4 to 5	1/2	50	94	94	56	37	µg/kg dw
	5 to 6	1/1	100	100	100	100	na	µg/kg dw
	6 to 7	1/1	100	120	120	120	na	µg/kg dw
	7 to 8	1/1	100	190	190	190	na	µg/kg dw
	8 to 9	1/1	100	440	440	440	na	µg/kg dw
	9 to 10	1/1	100	550	550	550	na	µg/kg dw
Acrolein	0 to 1	0/1	0	nd	nd	50	99	µg/kg dw
	1 to 2	0/1	0	nd	nd	42	83	µg/kg dw
	2 to 3	0/1	0	nd	nd	46	92	µg/kg dw
	3 to 4	0/1	0	nd	nd	39	78	µg/kg dw
	4 to 5	0/1	0	nd	nd	42	83	µg/kg dw
	5 to 6	0/1	0	nd	nd	42	83	µg/kg dw
	6 to 7	0/1	0	nd	nd	41	82	µg/kg dw
	7 to 8	0/1	0	nd	nd	48	95	µg/kg dw
	8 to 9	0/1	0	nd	nd	47	94	µg/kg dw
	9 to 10	0/1	0	nd	nd	42	84	µg/kg dw
Acrylonitrile	0 to 1	0/1	0	nd	nd	5.0	9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/1	0	nd	nd	4.6	9.2	µg/kg dw
	3 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 5	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.7	9.4	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Benzene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	1/1	100	4.4	4.4	4.4	na	µg/kg dw
	8 to 9	1/1	100	12	12	12	na	µg/kg dw
	9 to 10	1/1	100	41	41	41	na	µg/kg dw
Bromobenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Bromochloromethane	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Bromodichloromethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Bromoethane	0 to 1	0/1	0	nd	nd	2.0	4.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	2 to 3	0/1	0	nd	nd	1.9	3.7	µg/kg dw
	3 to 4	0/1	0	nd	nd	1.6	3.1	µg/kg dw
	4 to 5	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	7 to 8	0/1	0	nd	nd	1.9	3.8	µg/kg dw
	8 to 9	0/1	0	nd	nd	1.9	3.7	µg/kg dw
	9 to 10	0/1	0	nd	nd	1.7	3.4	µg/kg dw
Bromoform	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Bromomethane	0 to 1	0/4	0	nd	nd	1.2	2.0 – 2.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.3	1.8 – 3.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.1	1.6 – 2.7	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.2	1.7 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Carbon disulfide	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	1/1	100	4.0	4.0	4.0	na	µg/kg dw
	2 to 3	2/3	67	6.3	18	8.3	1.4	µg/kg dw
	3 to 4	1/2	50	3.0	3.0	1.8	1.3	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	1/1	100	2.2	2.2	2.2	na	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	1/1	100	2.8	2.8	2.8	na	µg/kg dw
	8 to 9	1/1	100	5.3	5.3	5.3	na	µg/kg dw
	9 to 10	1/1	100	1.9	1.9	1.9	na	µg/kg dw
Carbon tetrachloride	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont.   Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Chlorobenzene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Chloroethane	0 to 1	0/4	0	nd	nd	1.2	2.0 – 2.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.3	1.8 – 3.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.1	1.6 – 2.7	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.2	1.7 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Chloroform	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Chloromethane	0 to 1	0/4	0	nd	nd	1.2	2.0 – 2.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.3	1.8 – 3.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.1	1.6 – 2.7	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.2	1.7 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
cis-1,2-Dichloroethene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	1/2	50	2.3	2.3	1.6	1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	1/1	100	2.2	2.2	2.2	na	µg/kg dw
	7 to 8	1/1	100	8.1	8.1	8.1	na	µg/kg dw
	8 to 9	1/1	100	16	16	16	na	µg/kg dw
	9 to 10	1/1	100	46	46	46	na	µg/kg dw
cis-1,3-Dichloropropene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
p-Cymene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	1/1	100	4.5	4.5	4.5	na	µg/kg dw
	9 to 10	1/1	100	100	100	100	na	µg/kg dw
Dibromochloromethane	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Dibromomethane	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Dichloromethane	0 to 1	0/4	0	nd	nd	1.5	2.3 – 4.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.6	3.0 – 3.7	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.5	2.7 – 3.1	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.6	3.3 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	7 to 8	0/1	0	nd	nd	1.9	3.8	µg/kg dw
	8 to 9	0/1	0	nd	nd	1.9	3.7	µg/kg dw
	9 to 10	0/1	0	nd	nd	1.7	3.4	µg/kg dw
Ethylbenzene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	240	240	240	na	µg/kg dw
Iodomethane	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Isopropylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	72	72	72	na	µg/kg dw
Methyl ethyl ketone	0 to 1	1/4	25	21	21	7.7	5.9 – 7.2	µg/kg dw
	1 to 2	1/1	100	13	13	13	na	µg/kg dw
	2 to 3	2/3	67	12	13	9.5	6.8	µg/kg dw
	3 to 4	1/2	50	12	12	7.7	6.7	µg/kg dw
	4 to 5	1/2	50	28	28	21	28	µg/kg dw
	5 to 6	1/1	100	26	26	26	na	µg/kg dw
	6 to 7	1/1	100	30	30	30	na	µg/kg dw
	7 to 8	1/1	100	49	49	49	na	µg/kg dw
	8 to 9	1/1	100	100	100	100	na	µg/kg dw
	9 to 10	1/1	100	100	100	100	na	µg/kg dw
n-Butylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	58	58	58	na	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
n-Propylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	68	68	68	na	µg/kg dw
sec-Butylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	57	57	57	na	µg/kg dw
Styrene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
tert-Butylbenzene	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/1	0	nd	nd	0.90	1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	6.1	6.1	6.1	na	µg/kg dw
Tetrachloroethene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Toluene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	1/3	33	1.8	1.8	1.1	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	1/1	100	1.8	1.8	1.8	na	µg/kg dw
	7 to 8	1/1	100	2.0	2.0	2.0	na	µg/kg dw
	8 to 9	1/1	100	40	40	40	na	µg/kg dw
	9 to 10	1/1	100	2,500	2,500	2,500	na	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
trans-1,2-Dichloroethene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	22	22	22	na	µg/kg dw
trans-1,3-Dichloropropene	0 to 1	0/4	0	nd	nd	0.74	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	0/2	0	nd	nd	0.73	1.3 – 1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
trans-1,4-Dichloro-2-butene	0 to 1	0/1	0	nd	nd	5.0	9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/1	0	nd	nd	4.6	9.2	µg/kg dw
	3 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 5	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Trichloroethene	0 to 1	1/4	25	3.6 J	3.6 J	1.5	1.2 – 2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	0.78	1.4 – 1.8	µg/kg dw
	3 to 4	1/2	50	23	23	12	1.6	µg/kg dw
	4 to 5	0/2	0	nd	nd	1.8	1.7 – 5.6	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Trichlorofluoromethane	0 to 1	0/4	0	nd	nd	1.2	2.0 – 2.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.3	1.8 – 3.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.1	1.6 – 2.7	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.2	1.7 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	0/1	0	nd	nd	0.85	1.7	µg/kg dw
Vinyl acetate	0 to 1	0/4	0	nd	nd	3.7	5.9 – 9.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 3	0/3	0	nd	nd	3.9	6.8 – 9.2	µg/kg dw
	3 to 4	0/2	0	nd	nd	3.6	6.7 – 7.8	µg/kg dw
	4 to 5	0/2	0	nd	nd	9.1	8.3 – 28	µg/kg dw
	5 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 7	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	7 to 8	0/1	0	nd	nd	4.8	9.5	µg/kg dw
	8 to 9	0/1	0	nd	nd	4.7	9.4	µg/kg dw
	9 to 10	0/1	0	nd	nd	4.2	8.4	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Vinyl chloride	0 to 1	0/4	0	nd	nd	1.2	2.0 – 2.9	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/3	0	nd	nd	1.3	1.8 – 3.0	µg/kg dw
	3 to 4	0/2	0	nd	nd	1.1	1.6 – 2.7	µg/kg dw
	4 to 5	0/2	0	nd	nd	3.2	1.7 – 11	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	2.8	5.6	µg/kg dw
	7 to 8	1/1	100	29	29	29	na	µg/kg dw
	8 to 9	1/1	100	44	44	44	na	µg/kg dw
	9 to 10	1/1	100	450	450	450	na	µg/kg dw
Xylene (ortho)	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.80	1.4 – 1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	490	490	490	na	µg/kg dw
Xylene (meta & para)	0 to 1	0/1	0	nd	nd	1.0	2.0	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.80	1.4 – 1.8	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	1.9	µg/kg dw
	9 to 10	1/1	100	1,200	1,200	1,200	na	µg/kg dw
Xylene (total)	0 to 1	0/3	0	nd	nd	1.3	2.3 – 2.9	µg/kg dw
	2 to 3	0/1	0	nd	nd	1.5	3.0	µg/kg dw
	3 to 4	0/1	0	nd	nd	1.4	2.7	µg/kg dw
	4 to 5	0/1	0	nd	nd	5.5	11	µg/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
Total Xylenes (calc'd)	0 to 1	0/1	0	nd	nd	1.0	nc	µg/kg dw
	1 to 2	0/1	0	nd	nd	0.85	nc	µg/kg dw
	2 to 3	0/2	0	nd	nd	0.80	nc	µg/kg dw
	3 to 4	0/1	0	nd	nd	0.80	nc	µg/kg dw
	4 to 5	0/1	0	nd	nd	0.85	nc	µg/kg dw
	5 to 6	0/1	0	nd	nd	0.85	nc	µg/kg dw
	6 to 7	0/1	0	nd	nd	0.80	nc	µg/kg dw
	7 to 8	0/1	0	nd	nd	0.95	nc	µg/kg dw
	8 to 9	0/1	0	nd	nd	0.95	nc	µg/kg dw
	9 to 10	1/1	100	1,700	1,700	1,700	na	µg/kg dw
Dioxins/furans								
2,3,7,8-TCDD	0 to 1	7/7	100	0.325	0.754	0.551	na	ng/kg dw
	1 to 2	4/7	57	0.408	0.524	0.322	0.0467 – 0.454	ng/kg dw
1,2,3,7,8-PeCDD	0 to 1	7/7	100	0.883 J	2.80	1.69	na	ng/kg dw
	1 to 2	7/7	100	0.0640 J	2.84	1.45	na	ng/kg dw
1,2,3,4,7,8-HxCDD	0 to 1	7/7	100	1.40	4.14	2.68	na	ng/kg dw
	1 to 2	6/7	86	0.171 J	5.55	2.51	0.106	ng/kg dw
1,2,3,6,7,8-HxCDD	0 to 1	7/7	100	6.56	44.5	19.9	na	ng/kg dw
	1 to 2	7/7	100	0.430 J	19.9	11.9	na	ng/kg dw
1,2,3,7,8,9-HxCDD	0 to 1	7/7	100	5.28	14.9	9.44	na	ng/kg dw
	1 to 2	7/7	100	0.331 J	15.1	8.25	na	ng/kg dw
1,2,3,4,6,7,8-HpCDD	0 to 1	7/7	100	186	1,270	560	na	ng/kg dw
	1 to 2	7/7	100	12.9	740	354	na	ng/kg dw
OCDD	0 to 1	7/7	100	1,510	10,700	5,010	na	ng/kg dw
	1 to 2	7/7	100	100	6,840	2,840	na	ng/kg dw
2,3,7,8-TCDF	0 to 1	5/7	71	0.451	2.21	1.25	0.621 – 2.30	ng/kg dw
	1 to 2	5/7	71	0.0740 J	1.41	0.743	0.0467 – 0.637	ng/kg dw
1,2,3,7,8-PeCDF	0 to 1	7/7	100	0.361 J	5.82	1.78	na	ng/kg dw
	1 to 2	6/7	86	0.0930 J	1.32	0.780	0.0467	ng/kg dw
2,3,4,7,8-PeCDF	0 to 1	7/7	100	1.01	21.3	5.38	na	ng/kg dw
	1 to 2	7/7	100	0.109 J	2.80	1.64	na	ng/kg dw
1,2,3,4,7,8-HxCDF	0 to 1	7/7	100	3.73	152	30.5	na	ng/kg dw
	1 to 2	7/7	100	0.205 J	13.0	6.28	na	ng/kg dw
1,2,3,6,7,8-HxCDF	0 to 1	7/7	100	1.32	24.3	6.13	na	ng/kg dw
	1 to 2	7/7	100	0.135 J	3.81	2.04	na	ng/kg dw

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2,3,7,8,9-HxCDF	0 to 1	4/7	57	0.226 J	2.36	0.526	0.113 – 0.251	ng/kg dw
	1 to 2	3/7	43	0.239 J	0.342 J	0.178	0.0440 – 0.537	ng/kg dw
2,3,4,6,7,8-HxCDF	0 to 1	7/7	100	1.01	9.55	3.34	na	ng/kg dw
	1 to 2	7/7	100	0.146 J	2.57	1.52	na	ng/kg dw
1,2,3,4,6,7,8-HpCDF	0 to 1	7/7	100	31.7	508	147	na	ng/kg dw
	1 to 2	7/7	100	2.16	110	51.2	na	ng/kg dw
1,2,3,4,7,8,9-HpCDF	0 to 1	7/7	100	2.26	66.2	15.7	na	ng/kg dw
	1 to 2	7/7	100	0.127 J	8.85	4.25	na	ng/kg dw
OCDF	0 to 1	7/7	100	83.3	1,640	471	na	ng/kg dw
	1 to 2	7/7	100	3.51	444	180	na	ng/kg dw
Dioxin/furan TEQ - Bird	0 to 1	7/7	100	5.19 J	52.5 J	17.1	na	ng/kg dw
	1 to 2	7/7	100	0.400 J	13.3 J	7.52	na	ng/kg dw
Dioxin/furan TEQ - Fish	0 to 1	7/7	100	4.36 J	40.5 J	13.5	na	ng/kg dw
	1 to 2	7/7	100	0.357 J	10.9 J	6.33	na	ng/kg dw
Dioxin/furan TEQ - Mammal	0 to 1	7/7	100	6.71 J	54.1 J	20.2	na	ng/kg dw
	1 to 2	7/7	100	0.485 J	20.1 J	10.6	na	ng/kg dw
Petroleum groups								
TPH	0 to 1	2/2	100	310	400	360	na	mg/kg dw
	2 to 3	3/5	60	100	2,000	470	20	mg/kg dw
	3 to 4	1/1	100	30	30	30	na	mg/kg dw
	4 to 5	1/1	100	160	160	160	na	mg/kg dw
Geotechnical								
Liquid Limit	0 to 1	14/14	100	37.8	77.3	61.2	na	% dw
	1 to 2	14/14	100	52.9	95.4	65.2	na	% dw
Plastic Limit	0 to 1	14/14	100	23.3	52.6	35.0	na	% dw
	1 to 2	14/14	100	28.8	73.2	39.2	na	% dw
Plasticity Index	0 to 1	14/14	100	12.7	41.6	26.2	na	% dw
	1 to 2	14/14	100	13.8	45.4	26	na	% dw
Bulk Density (dry)	0 to 1	18/18	100	40.7	98.6	60.4	na	pcf
	1 to 2	22/22	100	31.4	102.5	66.7	na	pcf
	2 to 3	4/4	100	71.8	107.6	85.6	na	pcf
	3 to 4	1/1	100	96.3	96.3	96.3	na	pcf
Bulk Density (wet)	0 to 1	18/18	100	88.9	131.5	100	na	pcf
	1 to 2	22/22	100	77.5	129.5	104	na	pcf
	2 to 3	4/4	100	106.4	131.6	115.7	na	pcf
	3 to 4	1/1	100	126.1	126.1	126.1	na	pcf

Table E.6.2-1, cont. Subsurface sediment data, 1-ft intervals

Chemical	Depth Interval[a]	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Porosity	0 to 1	18/18	100	0.41	0.75	0.64	na	S.U.
	1 to 2	22/22	100	0.39	0.81	0.60	na	S.U.
	2 to 3	4/4	100	0.36	0.56	0.49	na	S.U.
	3 to 4	1/1	100	0.43	0.43	0.43	na	S.U.

[a] Data were assigned to sample intervals by first rounding (to the nearest foot) the top and bottom depths of each sample (in feet below mudline) and then assigning the data to the appropriate sampling interval category (i.e., 0-to-1-ft intervals to a depth of 10 ft below mudline). Data from dredged areas were not included.

[b] Surface sediment data were compared to the LAET and 2LAET instead of the SQS and CSL, respectively, if the TOC content was <0.5% or >4.0%.

Table E.6.2-2. Summary statistics for subsurface sediment data in 2-ft depth intervals down to 10 ft below mudline

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Metals and trace elements								
Aluminum	0 to 2	19/19	100	10,000 J	30,000	22,000	na	mg/kg dw
	2 to 4	15/15	100	7,200 J	33,000	23,000	na	mg/kg dw
Antimony	0 to 2	8/73	11	11 J	58 J	7	3.0 – 10	mg/kg dw
	2 to 4	9/70	13	0.400	590 J	20	3.6 – 40	mg/kg dw
	4 to 6	3/5	60	14 J	30 J	20	8 – 10	mg/kg dw
	6 to 8	3/4	75	13 J	280 J	100	6	mg/kg dw
	8 to 10	0/3	0	nd	nd	4	7.00 – 9	mg/kg dw
Arsenic	0 to 2	71/76	93	5.3	494	30	5.0 – 7	mg/kg dw
	2 to 4	60/73	82	5.0	2,000	60	6 – 8.00	mg/kg dw
	4 to 6	5/6	83	14	270	100	7.00	mg/kg dw
	6 to 8	4/4	100	20	1,890	700	na	mg/kg dw
	8 to 10	2/3	67	14	21	13	7.00	mg/kg dw
Barium	0 to 2	19/19	100	48	350	110	na	mg/kg dw
	2 to 4	15/15	100	14.5	640	130	na	mg/kg dw
Beryllium	0 to 2	19/19	100	0.20	0.53	0.37	na	mg/kg dw
	2 to 4	15/15	100	0.23	0.56	0.39	na	mg/kg dw
	8 to 10	1/1	100	0.20	0.20	0.20	na	mg/kg dw
Cadmium	0 to 2	72/97	74	0.22	18	0.9	0.20 – 0.5	mg/kg dw
	2 to 4	47/73	64	0.3	15	1	0.2 – 0.8	mg/kg dw
	4 to 6	6/6	100	0.7	4.0	2	na	mg/kg dw
	6 to 8	3/4	75	1.4	20.4	6	0.3	mg/kg dw
	8 to 10	2/3	67	0.12	1.9	1.1	0.30	mg/kg dw
Calcium	0 to 2	18/18	100	4,500	28,000	9,400	na	mg/kg dw
	2 to 4	14/14	100	5,200 J	19,000	8,100	na	mg/kg dw
Chromium	0 to 2	97/97	100	11.4 J	210 J	40	na	mg/kg dw
	2 to 4	73/73	100	8.1	386	37	na	mg/kg dw
	4 to 6	6/6	100	22	92	52	na	mg/kg dw
	6 to 8	4/4	100	13.0	160	72	na	mg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
	8 to 10	3/3	100	11.20	54.7	33.6	na	mg/kg dw
Cobalt	0 to 2	73/73	100	4.3	30	9	na	mg/kg dw
	2 to 4	68/68	100	3.2	100	10	na	mg/kg dw
	4 to 6	5/5	100	8.2	22	12	na	mg/kg dw
	6 to 8	4/4	100	5.5	106	40	na	mg/kg dw
	8 to 10	2/2	100	7.3	9.6	8.5	na	mg/kg dw
Copper	0 to 2	97/97	100	10.7	800	80	na	mg/kg dw
	2 to 4	73/73	100	7.6	2,940	100	na	mg/kg dw
	4 to 6	6/6	100	29.7	663	185	na	mg/kg dw
	6 to 8	4/4	100	23.2	1,950	922	na	mg/kg dw
	8 to 10	3/3	100	15.00	89.4	52.8	na	mg/kg dw
Iron	0 to 2	19/19	100	16,000 J	65,000 J	32,000	na	mg/kg dw
	2 to 4	15/15	100	10,000 J	56,000 J	31,000	na	mg/kg dw
Lead	0 to 2	95/97	98	3	772	80	2.5 – 3	mg/kg dw
	2 to 4	65/73	89	3	3,520 J	100	2 – 3	mg/kg dw
	4 to 6	6/6	100	18.0	1,210	320	na	mg/kg dw
	6 to 8	4/4	100	42	1,350	610	na	mg/kg dw
	8 to 10	3/3	100	3.00	89	57	na	mg/kg dw
Magnesium	0 to 2	18/18	100	4,400	11,000	7,700	na	mg/kg dw
	2 to 4	14/14	100	6,000	9,900	7,800	na	mg/kg dw
Manganese	0 to 2	19/19	100	160	940	330	na	mg/kg dw
	2 to 4	15/15	100	104	590	310	na	mg/kg dw
Mercury	0 to 2	102/107	95	0.05	10	0.3	0.04 – 0.07	mg/kg dw
	2 to 4	68/84	81	0.07	1.4	0.3	0.020 – 0.06	mg/kg dw
	4 to 6	9/15	60	0.080	0.98	0.31	0.050 – 0.060	mg/kg dw
	6 to 8	6/15	40	0.075	4.34	0.5	0.040 – 0.060	mg/kg dw
	8 to 10	3/12	25	0.025	0.89	0.1	0.050 – 0.080	mg/kg dw
Molybdenum	0 to 2	45/56	80	0.6	14	2	0.6 – 1	mg/kg dw
	2 to 4	34/55	62	0.7	113	4	0.6 – 2.4	mg/kg dw
	4 to 6	5/5	100	1.0	16	6	na	mg/kg dw
	6 to 8	4/4	100	1.0	166	59	na	mg/kg dw
	8 to 10	2/2	100	1.3	2.3	1.8	na	mg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Nickel	0 to 2	76/76	100	7 J	37	20	na	mg/kg dw
	2 to 4	70/70	100	6	226	20	na	mg/kg dw
	4 to 6	5/5	100	13	34	24	na	mg/kg dw
	6 to 8	4/4	100	10	69	40	na	mg/kg dw
	8 to 10	3/3	100	12.00	24	20	na	mg/kg dw
Potassium	0 to 2	19/19	100	900	3,900	2,700	na	mg/kg dw
	2 to 4	15/15	100	490	3,900	2,800	na	mg/kg dw
Selenium	0 to 2	6/74	8	0.70 J	14	4	1.0 – 20	mg/kg dw
	2 to 4	5/69	7	0.60 J	1.0 J	4	2.0 – 40	mg/kg dw
	4 to 6	0/5	0	nd	nd	6	7 – 20	mg/kg dw
	6 to 8	0/4	0	nd	nd	9	6 – 40	mg/kg dw
	8 to 10	0/3	0	nd	nd	4	7.00 – 9	mg/kg dw
Silver	0 to 2	52/97	54	0.050	3.3	0.6	0.4 – 1	mg/kg dw
	2 to 4	34/73	47	0.080	5	0.8	0.3 – 1	mg/kg dw
	4 to 6	4/6	67	1.4	4.3	2	0.400 – 1	mg/kg dw
	6 to 8	3/4	75	2	3	2	0.4	mg/kg dw
	8 to 10	2/3	67	0.5	2.3	1	0.40	mg/kg dw
Sodium	0 to 2	18/18	100	1,800	14,000	9,700	na	mg/kg dw
	2 to 4	14/14	100	4,200	14,000	9,800	na	mg/kg dw
Thallium	0 to 2	10/74	14	0.030 J	13	3	0.080 – 20	mg/kg dw
	2 to 4	12/69	17	0.030 J	7.0	4	0.080 – 40	mg/kg dw
	4 to 6	0/5	0	nd	nd	6	7 – 20	mg/kg dw
	6 to 8	0/4	0	nd	nd	9	6 – 40	mg/kg dw
	8 to 10	0/3	0	nd	nd	4	7.00 – 9	mg/kg dw
Tin	0 to 2	16/16	100	3.0	35	8.3	na	mg/kg dw
	2 to 4	14/14	100	3.0	46	10	na	mg/kg dw
Vanadium	0 to 2	73/73	100	37	87	65	na	mg/kg dw
	2 to 4	68/68	100	26	223	64	na	mg/kg dw
	4 to 6	5/5	100	39.8	95.1	71	na	mg/kg dw
	6 to 8	4/4	100	41.0	112	78	na	mg/kg dw
	8 to 10	2/2	100	63.9	75.4	69.7	na	mg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Zinc	0 to 2	97/97	100	21	1,660	200	na	mg/kg dw
	2 to 4	73/73	100	16.2 J	4,720	300	na	mg/kg dw
	4 to 6	6/6	100	69.0	1,430	630	na	mg/kg dw
	6 to 8	4/4	100	88.4	4,550	2,600	na	mg/kg dw
	8 to 10	3/3	100	21.00	186	115	na	mg/kg dw
Organometals								
Monobutyltin as ion	0 to 2	12/26	46	4.5	120 J	14	1.0 – 18	µg/kg dw
	2 to 4	5/25	20	6.0	170 J	12	1.0 – 65	µg/kg dw
	4 to 6	0/3	0	nd	nd	3.9	7.8 – 7.9	µg/kg dw
	6 to 8	2/2	100	9.1	46	28	na	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.8379	3.6757	µg/kg dw
Dibutyltin as ion	0 to 2	20/26	77	6.4	250	27	1.0 – 5.7	µg/kg dw
	2 to 4	12/25	48	7.0	220	28	1.0 – 5.7	µg/kg dw
	4 to 6	1/3	33	92	92	34	11	µg/kg dw
	6 to 8	2/2	100	520	960	740	na	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.2627	4.5253	µg/kg dw
Tributyltin as ion	0 to 2	22/27	81	3.0	2,500	160	1.0 – 4.9	µg/kg dw
	2 to 4	16/26	62	10	2,100	170	1.0 – 3.8	µg/kg dw
	4 to 6	3/3	100	14	1,000	350	na	µg/kg dw
	6 to 8	2/2	100	3,400	6,200	4,800	na	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.6285	5.2569	µg/kg dw
Tetrabutyltin as ion	0 to 2	2/12	17	5.0 J	39	8.9	3.0 – 15	µg/kg dw
	2 to 4	2/10	20	5.0 J	40	9.9	3.0 – 15	µg/kg dw
PAHs								
1-Methylnaphthalene	0 to 2	5/55	9	25	160	25	19 – 110	µg/kg dw
	2 to 4	6/54	11	37	2,600	77	19 – 100	µg/kg dw
	4 to 6	3/9	33	70	110	50	65 – 66	µg/kg dw
	6 to 8	2/5	40	84	400	120	65 – 66	µg/kg dw
	8 to 10	0/4	0	nd	nd	31	61 – 66	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
2-Chloronaphthalene	0 to 2	0/73	0	nd	nd	19	18 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
2-Methylnaphthalene	0 to 2	10/74	14	20	86	22	19 – 110	µg/kg dw
	2 to 4	9/73	12	30	4,500	89	19 – 100	µg/kg dw
	4 to 6	3/10	30	63 J	82	42	20.0 – 66	µg/kg dw
	6 to 8	2/5	40	110	610	160	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	26	5.40 – 66	µg/kg dw
Acenaphthene	0 to 2	26/74	35	12 J	1,400	57	19 – 110	µg/kg dw
	2 to 4	24/73	33	16 J	4,600	120	14 – 100	µg/kg dw
	4 to 6	4/10	40	190	1,000	240	20.0 – 66	µg/kg dw
	6 to 8	4/5	80	51 J	1,200	480	65	µg/kg dw
	8 to 10	1/5	20	99	99	39	5.40 – 62	µg/kg dw
Acenaphthylene	0 to 2	21/74	28	11 J	280	27	19.0 – 110	µg/kg dw
	2 to 4	13/73	18	11 J	95	21	19 – 100	µg/kg dw
	4 to 6	1/10	10	56 J	56 J	33	20.0 – 66	µg/kg dw
	6 to 8	2/5	40	63 J	98	52	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	26	5.40 – 66	µg/kg dw
Anthracene	0 to 2	58/74	78	20	1,100	110	19 – 60	µg/kg dw
	2 to 4	49/73	67	14 J	1,900	130	19 – 99	µg/kg dw
	4 to 6	8/10	80	52 J	580	210	20.0 – 66	µg/kg dw
	6 to 8	4/5	80	140	1,700	720	65	µg/kg dw
	8 to 10	4/5	80	40 J	63	40	5.40	µg/kg dw
Benzo(a)anthracene	0 to 2	71/74	96	13 J	3,600	310	20	µg/kg dw
	2 to 4	54/73	74	12 J	4,500	300	19 – 64	µg/kg dw
	4 to 6	9/10	90	39.0	1,600	420	66	µg/kg dw
	6 to 8	4/5	80	250	3,700	1,500	65	µg/kg dw
	8 to 10	4/5	80	84	140	84	5.40	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Benzo(a)pyrene	0 to 2	69/74	93	18 J	3,700	340	20	µg/kg dw
	2 to 4	55/73	75	13 J	4,000	290	19 – 39	µg/kg dw
	4 to 6	9/10	90	36.0	820	270	66	µg/kg dw
	6 to 8	4/5	80	200	2,800	1,100	65	µg/kg dw
	8 to 10	4/5	80	61	200	87	5.40	µg/kg dw
Benzo(b)fluoranthene	0 to 2	71/74	96	13 J	4,700	480	20	µg/kg dw
	2 to 4	56/73	77	11 J	5,000	390	19 – 54	µg/kg dw
	4 to 6	9/10	90	61.0	1,400	410	66	µg/kg dw
	6 to 8	4/5	80	290	3,500	1,500	65	µg/kg dw
	8 to 10	4/5	80	45 J	210	89	5.40	µg/kg dw
Benzo(g,h,i)perylene	0 to 2	62/74	84	15.0 J	800	100	19 – 60	µg/kg dw
	2 to 4	46/70	66	11 J	830	88	19 – 99	µg/kg dw
	4 to 6	8/9	89	71	210	110	66	µg/kg dw
	6 to 8	4/5	80	76	1,000	380	65	µg/kg dw
	8 to 10	4/5	80	35 J	100	48	5.40	µg/kg dw
Benzo(k)fluoranthene	0 to 2	71/74	96	12 J	3,500	370	20	µg/kg dw
	2 to 4	56/73	77	10 J	4,100	310	19 – 54	µg/kg dw
	4 to 6	9/10	90	34.0	740	240	66	µg/kg dw
	6 to 8	4/5	80	160	1,700	800	65	µg/kg dw
	8 to 10	4/5	80	63 J	230	92	5.40	µg/kg dw
Benzofluoranthenes (total-calc'd)	0 to 2	71/74	96	24 J	7,700	850	nc	µg/kg dw
	2 to 4	56/73	77	21 J	9,100	700	nc	µg/kg dw
	4 to 6	9/10	90	95.0	2,100	640	nc	µg/kg dw
	6 to 8	4/5	80	450	5,200	2,300	nc	µg/kg dw
	8 to 10	4/5	80	117 J	440	180	nc	µg/kg dw
Chrysene	0 to 2	71/74	96	13 J	4,300	440	20	µg/kg dw
	2 to 4	55/73	75	14 J	7,200	430	19 – 39	µg/kg dw
	4 to 6	9/10	90	66.0	1,700	470	66	µg/kg dw
	6 to 8	4/5	80	310	3,900	1,600	65	µg/kg dw
	8 to 10	4/5	80	94	190	110	5.40	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	0 to 2	31/74	42	11 J	270	37	19 – 110	µg/kg dw
	2 to 4	26/73	36	11 J	270	32	19 – 140	µg/kg dw
	4 to 6	8/10	80	36	110	54	6.6 – 20.0	µg/kg dw
	6 to 8	5/5	100	6.5	400 J	180	na	µg/kg dw
	8 to 10	4/5	80	19	50	24	5.40	µg/kg dw
Dibenzofuran	0 to 2	15/74	20	20	1,200	45	20 – 110	µg/kg dw
	2 to 4	16/73	22	20	1,700	56	19 – 100	µg/kg dw
	4 to 6	4/10	40	100	380	110	20.0 – 66	µg/kg dw
	6 to 8	3/5	60	80	710	240	65	µg/kg dw
	8 to 10	0/5	0	nd	nd	26	5.40 – 66	µg/kg dw
Fluoranthene	0 to 2	72/74	97	13 J	8,100	810	20	µg/kg dw
	2 to 4	60/73	82	12 J	13,000	830	19 – 20	µg/kg dw
	4 to 6	10/10	100	70	5,000	1,700	na	µg/kg dw
	6 to 8	4/5	80	730	10,000	4,400	65	µg/kg dw
	8 to 10	5/5	100	28.00	350	250	na	µg/kg dw
Fluorene	0 to 2	31/74	42	12 J	1,900	64	20 – 110	µg/kg dw
	2 to 4	26/73	36	13 J	4,300	110	19 – 100	µg/kg dw
	4 to 6	5/10	50	39 J	630	180	20.0 – 66	µg/kg dw
	6 to 8	4/5	80	120	1,400	430	65	µg/kg dw
	8 to 10	2/5	40	38 J	42 J	29	5.40 – 62	µg/kg dw
Indeno(1,2,3-cd)pyrene	0 to 2	62/74	84	12.0 J	1,100	120	19 – 60	µg/kg dw
	2 to 4	47/70	67	10 J	1,200	110	19 – 60	µg/kg dw
	4 to 6	8/9	89	55 J	180	92	66	µg/kg dw
	6 to 8	4/5	80	70	1,000	360	65	µg/kg dw
	8 to 10	4/5	80	34 J	97	45	5.40	µg/kg dw
Naphthalene	0 to 2	19/75	25	12 J	220	31	8.3 – 110	µg/kg dw
	2 to 4	21/74	28	12 J	3,400	100	7.8 – 100	µg/kg dw
	4 to 6	5/11	45	60 J	410	100	8.3 – 66	µg/kg dw
	6 to 8	3/6	50	45 J	1,200	260	8.2 – 65	µg/kg dw
	8 to 10	0/5	0	nd	nd	26	5.40 – 66	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
Phenanthrene	0 to 2	72/74	97	14 J	1,900	250	20	µg/kg dw
	2 to 4	56/73	77	20	13,000	450	19 – 38	µg/kg dw
	4 to 6	9/10	90	81	1,400	490	20.0	µg/kg dw
	6 to 8	4/5	80	460	5,600	2,400	65	µg/kg dw
	8 to 10	5/5	100	12.00	150	100	na	µg/kg dw
Pyrene	0 to 2	72/74	97	17 J	6,100	780	20	µg/kg dw
	2 to 4	62/73	85	9.9 J	8,900	750	19 – 20	µg/kg dw
	4 to 6	10/10	100	70	10,000	2,200	na	µg/kg dw
	6 to 8	5/5	100	53 J	9,700	4,300	na	µg/kg dw
	8 to 10	5/5	100	30.0	470	250	na	µg/kg dw
Total HPAH	0 to 2	72/74	97	80	27,900	3,600	nc	µg/kg dw
	2 to 4	62/73	85	9.9 J	47,000	3,500	nc	µg/kg dw
	4 to 6	10/10	100	140	22,000	5,900	nc	µg/kg dw
	6 to 8	5/5	100	60 J	38,000 J	16,000	nc	µg/kg dw
	8 to 10	5/5	100	58.0	2,040	1,100	nc	µg/kg dw
Total LPAH	0 to 2	72/74	97	15 J	3,800 J	450	nc	µg/kg dw
	2 to 4	56/73	77	20	27,000 J	880	nc	µg/kg dw
	4 to 6	9/10	90	141 J	3,900	1,200	nc	µg/kg dw
	6 to 8	4/5	80	770 J	9,800	4,300	nc	µg/kg dw
	8 to 10	5/5	100	12.00	275 J	180	na	µg/kg dw
Carcinogenic PAHs - Mammal	0 to 2	71/74	96	41.6 J	4,900	520	18	µg/kg dw
	2 to 4	56/73	77	18 J	5,600	440	17 – 35	µg/kg dw
	4 to 6	9/10	90	54.1	1,300	410	48	µg/kg dw
	6 to 8	5/5	100	48	4,000 J	1,600	na	µg/kg dw
	8 to 10	4/5	80	93 J	290	130	4.89	µg/kg dw
Total PAH	0 to 2	73/74	99	24	29,500 J	4,000	nc	µg/kg dw
	2 to 4	62/73	85	9.9 J	57,000 J	4,400	nc	µg/kg dw
	4 to 6	10/10	100	281 J	23,000 J	7,100	nc	µg/kg dw
	6 to 8	5/5	100	60 J	46,000 J	20,000	nc	µg/kg dw
	8 to 10	5/5	100	70.0	2,210	1,240	na	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Phthalates								
Bis(2-ethylhexyl)phthalate	0 to 2	65/74	88	12 J	2,400	390	20 – 530	µg/kg dw
	2 to 4	51/73	70	13 J	3,900	460	19 – 280	µg/kg dw
	4 to 6	8/10	80	56 J	2,200	570	20.0 – 65	µg/kg dw
	6 to 8	4/5	80	1,000	3,800	1,400	65	µg/kg dw
	8 to 10	2/5	40	72.00	260	85	61 – 66	µg/kg dw
Butyl benzyl phthalate	0 to 2	51/74	69	5.9	610	42	5.8 – 110	µg/kg dw
	2 to 4	34/73	47	5.8 J	180	24	5.8 – 42	µg/kg dw
	4 to 6	5/10	50	12 J	48	18	6.5 – 36	µg/kg dw
	6 to 8	4/5	80	15 J	35 J	22	6.5	µg/kg dw
	8 to 10	0/5	0	nd	nd	4.5	6.1 – 20.0	µg/kg dw
Diethyl phthalate	0 to 2	0/74	0	nd	nd	19	19 – 110	µg/kg dw
	2 to 4	0/73	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
Dimethyl phthalate	0 to 2	5/74	7	9.9 J	84	20	12 – 110	µg/kg dw
	2 to 4	4/73	5	30	8,800	140	14 – 140	µg/kg dw
	4 to 6	2/10	20	20	210	28	6.5 – 44	µg/kg dw
	6 to 8	3/5	60	16	69 J	22	6.5	µg/kg dw
	8 to 10	0/5	0	nd	nd	21	6.6 – 62	µg/kg dw
Di-n-butyl phthalate	0 to 2	19/74	26	10 J	200	28	19.0 – 180	µg/kg dw
	2 to 4	15/73	21	10 J	87	22	19 – 140	µg/kg dw
	4 to 6	1/10	10	67	67	34	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	1/5	20	42 J	42 J	29	22.00 – 66	µg/kg dw
Di-n-octyl phthalate	0 to 2	5/74	7	25	220	22	18 – 110	µg/kg dw
	2 to 4	3/73	4	14 J	110	19	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	2/5	40	56 J	57 J	42	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Other SVOCs								
1,2,4-Trichlorobenzene	0 to 2	11/76	14	3.9 J	13 J	6.2	5.8 – 110	µg/kg dw
	2 to 4	4/74	5	4.1 J	110 J	7.4	5.8 – 25.0	µg/kg dw
	4 to 6	2/11	18	11	18	6.0	6.5 – 20.0	µg/kg dw
	6 to 8	3/6	50	9.8	14	7.6	6.5 – 8.2	µg/kg dw
	8 to 10	0/5	0	nd	nd	3.0	5.40 – 6.6	µg/kg dw
1,2-Dichlorobenzene	0 to 2	8/76	11	1.7 J	20	5.8	1.7 – 110	µg/kg dw
	2 to 4	8/74	11	3.6 J	150	7.9	0.86 – 42	µg/kg dw
	4 to 6	2/11	18	10	12	5.1	1.7 – 20.0	µg/kg dw
	6 to 8	3/6	50	12	160	42	1.6 – 6.6	µg/kg dw
	8 to 10	0/5	0	nd	nd	2.6	1.10 – 6.6	µg/kg dw
1,2-Diphenylhydrazine	0 to 2	0/1	0	nd	nd	30	60	µg/kg dw
	2 to 4	0/1	0	nd	nd	33	66	µg/kg dw
1,3-Dichlorobenzene	0 to 2	0/76	0	nd	nd	18	0.78 – 110	µg/kg dw
	2 to 4	0/74	0	nd	nd	17	0.86 – 140	µg/kg dw
	4 to 6	1/11	9	12	12	4.5	1.7 – 20.0	µg/kg dw
	6 to 8	2/6	33	6.5	7.2	4.1	1.6 – 6.6	µg/kg dw
	8 to 10	0/5	0	nd	nd	19	1.10 – 62	µg/kg dw
1,4-Dichlorobenzene	0 to 2	16/76	21	3.0 J	380 J	11	1.7 – 110	µg/kg dw
	2 to 4	13/74	18	2.1 J	38	6.5	1.6 – 42	µg/kg dw
	4 to 6	7/11	64	3.9 J	31	7.3	1.7 – 20.0	µg/kg dw
	6 to 8	4/6	67	4.0 J	24	9.5	1.6 – 6.5	µg/kg dw
	8 to 10	0/5	0	nd	nd	19	1.10 – 6.6	µg/kg dw
2,4,5-Trichlorophenol	0 to 2	0/73	0	nd	nd	100	97 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	99	96 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2,4,6-Trichlorophenol	0 to 2	0/73	0	nd	nd	100	97 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	99	96 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
2,4-Dichlorophenol	0 to 2	0/73	0	nd	nd	87	30 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	84	34 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	60.0 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	59.00 – 330	µg/kg dw
2,4-Dimethylphenol	0 to 2	5/74	7	9.5 J	27 J	8.9	5.8 – 330	µg/kg dw
	2 to 4	5/73	7	6.3 J	46	7.4	5.8 – 42	µg/kg dw
	4 to 6	3/10	30	6.5 J	9.2	5.3	6.5 – 20.0	µg/kg dw
	6 to 8	4/5	80	8.5 J	24 J	15	6.5	µg/kg dw
	8 to 10	3/5	60	3.7 J	10	6.5	6.6 – 20.0	µg/kg dw
2,4-Dinitrophenol	0 to 2	1/73	1	300	300	190	60 – 1,100	µg/kg dw
	2 to 4	0/72	0	nd	nd	180	66 – 1,400	µg/kg dw
	4 to 6	0/10	0	nd	nd	300	200 – 660	µg/kg dw
	6 to 8	0/5	0	nd	nd	330	650 – 660	µg/kg dw
	8 to 10	0/5	0	nd	nd	270	200 – 660	µg/kg dw
2,4-Dinitrotoluene	0 to 2	0/73	0	nd	nd	100	12 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	98	14 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
2,6-Dinitrotoluene	0 to 2	0/73	0	nd	nd	100	12 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	98	14 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2-Chlorophenol	0 to 2	0/73	0	nd	nd	19	20 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
2-Methylphenol	0 to 2	14/74	19	3.0 J	160	9.3	5.8 – 220	µg/kg dw
	2 to 4	7/73	10	4.2 J	10	6.0	5.8 – 42	µg/kg dw
	4 to 6	0/10	0	nd	nd	3.9	6.5 – 20.0	µg/kg dw
	6 to 8	4/5	80	5.9 J	12	6.9	6.5	µg/kg dw
	8 to 10	0/5	0	nd	nd	4.5	6.1 – 20.0	µg/kg dw
2-Nitroaniline	0 to 2	0/73	0	nd	nd	94	100 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	89	96 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
2-Nitrophenol	0 to 2	0/73	0	nd	nd	93	30 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	88	34 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
3,3'-Dichlorobenzidine	0 to 2	0/73	0	nd	nd	100	30 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	98	34 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
3-Nitroaniline	0 to 2	0/73	0	nd	nd	110	100 – 660	µg/kg dw
	2 to 4	0/72	0	nd	nd	99	96 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	120 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	140	120.0 – 330	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
4,6-Dinitro-o-cresol	0 to 2	0/73	0	nd	nd	190	60 – 1,100	µg/kg dw
	2 to 4	0/72	0	nd	nd	180	66 – 1,400	µg/kg dw
	4 to 6	0/10	0	nd	nd	300	200 – 660	µg/kg dw
	6 to 8	0/5	0	nd	nd	330	650 – 660	µg/kg dw
	8 to 10	0/5	0	nd	nd	270	200 – 660	µg/kg dw
4-Bromophenyl phenyl ether	0 to 2	0/73	0	nd	nd	21	12 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	20	14 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
4-Chloro-3-methylphenol	0 to 2	0/73	0	nd	nd	84	40 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	81	39.0 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	40.0 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	39.00 – 330	µg/kg dw
4-Chloroaniline	0 to 2	1/73	1	230 J	230 J	90	60 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	84	59.0 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	60.0 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	59.00 – 330	µg/kg dw
4-Chlorophenyl phenyl ether	0 to 2	0/73	0	nd	nd	19	18 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
4-Methylphenol	0 to 2	3/74	4	13 J	42 J	19	20 – 110	µg/kg dw
	2 to 4	3/73	4	23	110 J	19	19 – 140	µg/kg dw
	4 to 6	1/10	10	42 J	42 J	31	20.0 – 66	µg/kg dw
	6 to 8	2/5	40	37 J	48 J	37	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4-Nitroaniline	0 to 2	0/73	0	nd	nd	94	100 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	89	96 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
4-Nitrophenol	0 to 2	0/73	0	nd	nd	93	60 – 560	µg/kg dw
	2 to 4	0/72	0	nd	nd	89	66 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw
Aniline	0 to 2	2/56	4	33 J	36 J	22	20 – 110	µg/kg dw
	2 to 4	0/55	0	nd	nd	21	19 – 140	µg/kg dw
	4 to 6	0/9	0	nd	nd	33	65 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/4	0	nd	nd	31	61 – 66	µg/kg dw
Benzoic acid	0 to 2	41/74	55	50 J	490	140	58 – 1,100	µg/kg dw
	2 to 4	32/73	44	54 J	3,000 J	150	58 – 350	µg/kg dw
	4 to 6	0/10	0	nd	nd	280	200 – 590	µg/kg dw
	6 to 8	1/5	20	320 J	320 J	300	590	µg/kg dw
	8 to 10	0/5	0	nd	nd	260	200 – 620	µg/kg dw
Benzyl alcohol	0 to 2	11/74	15	18 J	200	30	19.0 – 550	µg/kg dw
	2 to 4	7/73	10	20 J	34 J	21	20.0 – 210	µg/kg dw
	4 to 6	1/10	10	52	52	19	20.0 – 33	µg/kg dw
	6 to 8	0/5	0	nd	nd	17	33	µg/kg dw
	8 to 10	0/5	0	nd	nd	16	20.0 – 38	µg/kg dw
bis(2-chloroethoxy)methane	0 to 2	0/73	0	nd	nd	21	19 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	20	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
bis(2-chloroethyl)ether	0 to 2	0/73	0	nd	nd	22	18 – 220	µg/kg dw
	2 to 4	0/72	0	nd	nd	20	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	31	40.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	29	39.00 – 66	µg/kg dw
bis(2-chloroisopropyl)ether	0 to 2	0/73	0	nd	nd	21	19 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	20	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
Carbazole	0 to 2	9/18	50	20	190	39	20 – 110	µg/kg dw
	2 to 4	7/18	39	20	200	30	20.0 – 34	µg/kg dw
	4 to 6	0/1	0	nd	nd	10.0	20.0	µg/kg dw
	8 to 10	0/1	0	nd	nd	10.0	20.0	µg/kg dw
Coprostanol	0 to 2	0/1	0	nd	nd	60	120	µg/kg dw
	2 to 4	0/1	0	nd	nd	70	140	µg/kg dw
Hexachlorobenzene	0 to 2	2/74	3	5.9	10	5.1	0.78 – 110	µg/kg dw
	2 to 4	0/73	0	nd	nd	4.7	0.86 – 42	µg/kg dw
	4 to 6	0/10	0	nd	nd	3.9	6.5 – 20.0	µg/kg dw
	6 to 8	1/5	20	4.6 J	4.6 J	3.5	6.5 – 6.6	µg/kg dw
	8 to 10	0/5	0	nd	nd	4.5	6.1 – 20.0	µg/kg dw
Hexachlorobutadiene	0 to 2	0/75	0	nd	nd	5.9	0.98 – 220	µg/kg dw
	2 to 4	0/74	0	nd	nd	4.9	0.96 – 42	µg/kg dw
	4 to 6	0/11	0	nd	nd	4.0	6.5 – 20.0	µg/kg dw
	6 to 8	1/6	17	5.9 J	5.9 J	3.9	6.5 – 8.2	µg/kg dw
	8 to 10	0/5	0	nd	nd	3.0	5.40 – 6.6	µg/kg dw
Hexachlorocyclopentadiene	0 to 2	0/72	0	nd	nd	94	100 – 560	µg/kg dw
	2 to 4	0/71	0	nd	nd	89	96 – 700	µg/kg dw
	4 to 6	0/10	0	nd	nd	150	100 – 330	µg/kg dw
	6 to 8	0/5	0	nd	nd	170	330	µg/kg dw
	8 to 10	0/5	0	nd	nd	130	98.00 – 330	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Hexachloroethane	0 to 2	0/74	0	nd	nd	19	20 – 220	µg/kg dw
	2 to 4	0/73	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
Isophorone	0 to 2	0/73	0	nd	nd	19	20 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
Methyl isobutyl ketone	0 to 2	0/2	0	nd	nd	4.3	8.3 – 8.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
Nitrobenzene	0 to 2	0/73	0	nd	nd	19	20 – 110	µg/kg dw
	2 to 4	0/72	0	nd	nd	18	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	30	20.0 – 66	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
N-Nitrosodimethylamine	0 to 2	0/56	0	nd	nd	18	29 – 120	µg/kg dw
	2 to 4	0/55	0	nd	nd	21	29 – 210	µg/kg dw
	4 to 6	0/9	0	nd	nd	16	32 – 33	µg/kg dw
	6 to 8	0/5	0	nd	nd	17	33	µg/kg dw
	8 to 10	0/4	0	nd	nd	16	30 – 33	µg/kg dw
N-Nitroso-di-n-propylamine	0 to 2	5/73	7	26 J	320	25	29 – 220	µg/kg dw
	2 to 4	1/72	1	41	41	20	29 – 210	µg/kg dw
	4 to 6	0/10	0	nd	nd	17	32 – 40.0	µg/kg dw
	6 to 8	0/5	0	nd	nd	20	33 – 69	µg/kg dw
	8 to 10	0/5	0	nd	nd	16	30 – 39.00	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
N-Nitrosodiphenylamine	0 to 2	1/74	1	33	33	23	6 – 870	µg/kg dw
	2 to 4	0/73	0	nd	nd	81	5.8 – 7,300	µg/kg dw
	4 to 6	0/10	0	nd	nd	73	20.0 – 510	µg/kg dw
	6 to 8	0/5	0	nd	nd	380	6.5 – 2,600	µg/kg dw
	8 to 10	0/5	0	nd	nd	18	20.0 – 65	µg/kg dw
Pentachlorophenol	0 to 2	17/74	23	17 J	730	45	29 – 550	µg/kg dw
	2 to 4	10/73	14	18 J	190	33	29 – 180	µg/kg dw
	4 to 6	9/10	90	36	63	44	100	µg/kg dw
	6 to 8	4/5	80	45	800	280	33	µg/kg dw
	8 to 10	1/5	20	19 J	19 J	23	30 – 98.00	µg/kg dw
Phenol	0 to 2	20/74	27	14 J	180	35	19 – 220	µg/kg dw
	2 to 4	17/73	23	13 J	110	25	19 – 140	µg/kg dw
	4 to 6	0/10	0	nd	nd	31	20.0 – 73	µg/kg dw
	6 to 8	0/5	0	nd	nd	33	65 – 66	µg/kg dw
	8 to 10	0/5	0	nd	nd	27	20.0 – 66	µg/kg dw
Polychlorinated biphenyls								
PCB-018	0 to 2	10/16	62	1.0	7.0	2.2	1.0	µg/kg dw
	2 to 4	8/14	57	1.0	270 J	22	1.0	µg/kg dw
PCB-028	0 to 2	10/16	62	2.0	13	3.6	1.0	µg/kg dw
	2 to 4	10/14	71	1.0	220	20	1.0	µg/kg dw
PCB-044	0 to 2	12/16	75	1.0	18	5.1	1.0	µg/kg dw
	2 to 4	10/14	71	2.0	52	9.1	1.0	µg/kg dw
PCB-055	0 to 2	13/16	81	1.0	38	8.8	1.0	µg/kg dw
	2 to 4	10/14	71	3.0	150	19	1.0	µg/kg dw
PCB-066	0 to 2	13/16	81	2.0	120	17	1.0	µg/kg dw
	2 to 4	10/14	71	5.0	140	25	1.0	µg/kg dw
PCB-077	0 to 2	0/16	0	nd	nd	0.66	1.0 – 4.0	µg/kg dw
	2 to 4	0/14	0	nd	nd	0.93	1.0 – 9.0	µg/kg dw
PCB-081	0 to 2	0/16	0	nd	nd	0.50	1.0	µg/kg dw
	2 to 4	0/14	0	nd	nd	0.54	1.0 – 2.0	µg/kg dw
PCB-101	0 to 2	12/16	75	1.0	130	16	1.0	µg/kg dw
	2 to 4	10/14	71	4.0	90	17	1.0	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
PCB-105	0 to 2	10/16	62	2.0	43	5.6	1.0	µg/kg dw
	2 to 4	10/14	71	1.0	33	7.1	1.0	µg/kg dw
PCB-114	0 to 2	2/16	12	2.0	5.0 J	1.0	1.0 – 4.0	µg/kg dw
	2 to 4	0/14	0	nd	nd	0.71	1.0 – 3.0	µg/kg dw
PCB-118	0 to 2	13/16	81	1.0	110	13	1.0	µg/kg dw
	2 to 4	10/14	71	3.0	70	15	1.0	µg/kg dw
PCB-123	0 to 2	0/16	0	nd	nd	1.1	1.0 – 10	µg/kg dw
	2 to 4	0/14	0	nd	nd	0.96	1.0 – 7.0	µg/kg dw
PCB-126	0 to 2	2/16	12	1.0	2.0	0.63	1.0	µg/kg dw
	2 to 4	1/14	7	4.0	4.0	0.75	1.0	µg/kg dw
PCB-128	0 to 2	10/16	62	2.0	27	3.8	1.0	µg/kg dw
	2 to 4	10/14	71	1.0	17	4.0	1.0	µg/kg dw
PCB-138	0 to 2	14/16	88	2.0	160	24	1.0	µg/kg dw
	2 to 4	10/14	71	1.0	110	27	1.0	µg/kg dw
PCB-153	0 to 2	13/16	81	2.0	98	17	1.0	µg/kg dw
	2 to 4	10/14	71	4.0	78	18	1.0	µg/kg dw
PCB-156	0 to 2	8/16	50	1.0 J	16	2.3	1.0	µg/kg dw
	2 to 4	7/14	50	1.0	10	2.5	1.0	µg/kg dw
PCB-157	0 to 2	1/16	6	3.0	3.0	0.66	1.0	µg/kg dw
	2 to 4	4/14	29	1.0	3.0	1.0	1.0	µg/kg dw
PCB-167	0 to 2	4/16	25	1.0	8.0	1.2	1.0	µg/kg dw
	2 to 4	5/14	36	1.0 J	5.0	1.5	1.0	µg/kg dw
PCB-169	0 to 2	0/16	0	nd	nd	0.50	1.0	µg/kg dw
	2 to 4	0/14	0	nd	nd	0.50	1.0	µg/kg dw
PCB-170	0 to 2	9/16	56	3.0	29	5.3	1.0 – 7.0	µg/kg dw
	2 to 4	9/14	64	2.0	28	7.3	1.0 – 2.0	µg/kg dw
PCB-180	0 to 2	13/16	81	1.0	53	8.9	1.0	µg/kg dw
	2 to 4	10/14	71	3.0	41	12	1.0	µg/kg dw
PCB-187	0 to 2	12/16	75	1.0	28	5.1	1.0	µg/kg dw
	2 to 4	10/14	71	2.0	21	7.1	1.0	µg/kg dw
PCB-189	0 to 2	0/16	0	nd	nd	0.50	1.0	µg/kg dw
	2 to 4	1/14	7	1.0	1.0	0.54	1.0	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-195	0 to 2	5/16	31	1.0 J	6.0	1.0	1.0	µg/kg dw
	2 to 4	6/14	43	1.0	4.0 J	1.4	1.0	µg/kg dw
PCB-206	0 to 2	5/16	31	1.0	3.0	0.84	1.0	µg/kg dw
	2 to 4	6/14	43	1.0	3.0	1.2	1.0	µg/kg dw
PCB-209	0 to 2	0/16	0	nd	nd	0.50	1.0	µg/kg dw
	2 to 4	2/14	14	1.0	1.0	0.57	1.0	µg/kg dw
Aroclor-1016	0 to 2	0/137	0	nd	nd	120	0.10 – 24,000	µg/kg dw
	2 to 4	0/135	0	nd	nd	30	0.10 – 900	µg/kg dw
	4 to 6	0/60	0	nd	nd	40	3.8 – 1,700	µg/kg dw
	6 to 8	0/30	0	nd	nd	22	3.9 – 310	µg/kg dw
	8 to 10	0/24	0	nd	nd	8.0	3.8 – 20	µg/kg dw
Aroclor-1221	0 to 2	0/126	0	nd	nd	25	0.10 – 920	µg/kg dw
	2 to 4	0/135	0	nd	nd	30	0.10 – 900	µg/kg dw
	4 to 6	0/59	0	nd	nd	40	3.8 – 1,700	µg/kg dw
	6 to 8	0/30	0	nd	nd	24	3.9 – 310	µg/kg dw
	8 to 10	0/24	0	nd	nd	8.4	3.8 – 39.00	µg/kg dw
Aroclor-1232	0 to 2	0/126	0	nd	nd	24	0.10 – 920	µg/kg dw
	2 to 4	0/135	0	nd	nd	30	0.10 – 900	µg/kg dw
	4 to 6	0/59	0	nd	nd	50	3.8 – 1,700	µg/kg dw
	6 to 8	0/30	0	nd	nd	22	3.9 – 310	µg/kg dw
	8 to 10	0/24	0	nd	nd	8.0	3.8 – 20	µg/kg dw
Aroclor-1242	0 to 2	24/137	18	5.2	1,500	150	0.10 – 24,000	µg/kg dw
	2 to 4	21/129	16	13	2,500	70	0.10 – 900	µg/kg dw
	4 to 6	12/59	20	38	900	97	3.8 – 1,700	µg/kg dw
	6 to 8	3/30	10	370	820	69	3.9 – 310	µg/kg dw
	8 to 10	0/24	0	nd	nd	8.0	3.8 – 20	µg/kg dw
Aroclor-1248	0 to 2	69/137	50	5.1	1,300	270	0.10 – 24,000	µg/kg dw
	2 to 4	52/135	39	14 J	7,200	300	0.10 – 6,600	µg/kg dw
	4 to 6	7/60	12	26	150	130	3.8 – 5,700	µg/kg dw
	6 to 8	8/30	27	31	430	67	3.9 – 310	µg/kg dw
	8 to 10	2/24	8	22	65.00	12	3.8 – 69	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Aroclor-1254	0 to 2	119/137	87	5.7	35,000	1,400	0.10 – 130,000	µg/kg dw
	2 to 4	102/135	76	0.52 J	9,000	600	0.10 – 110	µg/kg dw
	4 to 6	44/60	73	3.9 J	12,000	660	3.8 – 44	µg/kg dw
	6 to 8	15/30	50	4.5 J	2,600	310	19 – 58	µg/kg dw
	8 to 10	6/24	25	14 J	250	29	3.8 – 39	µg/kg dw
Aroclor-1260	0 to 2	123/137	90	6.1	890,000	7,300	0.10 – 4,900	µg/kg dw
	2 to 4	104/135	77	6.3 J	6,400 J	400	0.10 – 160	µg/kg dw
	4 to 6	45/60	75	19	2,900	330	3.8 – 44	µg/kg dw
	6 to 8	18/30	60	18 J	1,200	160	3.9 – 20	µg/kg dw
	8 to 10	10/24	42	18 J	290	39	3.9 – 20	µg/kg dw
Total PCBs	0 to 2	130/137	95	12.9	890,000	8,300	nc	µg/kg dw
	2 to 4	106/135	79	3 J	19,000 J	1,200	nc	µg/kg dw
	4 to 6	47/60	78	3.9 J	15,000	1,100	nc	µg/kg dw
	6 to 8	20/30	67	4.5 J	3,800	560	nc	µg/kg dw
	8 to 10	12/24	50	14 J	540	65	nc	µg/kg dw
Organochlorine pesticides								
2,4'-DDD	0 to 2	0/12	0	nd	nd	3.0	2.0 – 18	µg/kg dw
	2 to 4	0/13	0	nd	nd	3.5	1.9 – 29	µg/kg dw
2,4'-DDE	0 to 2	0/12	0	nd	nd	8.3	2.0 – 82	µg/kg dw
	2 to 4	0/13	0	nd	nd	7.8	1.9 – 81	µg/kg dw
2,4'-DDT	0 to 2	0/12	0	nd	nd	3.0	2.0 – 18	µg/kg dw
	2 to 4	0/13	0	nd	nd	3.5	1.9 – 29	µg/kg dw
4,4'-DDD	0 to 2	3/21	14	2.7	8.0 J	2.7	2.0 – 18	µg/kg dw
	2 to 4	3/21	14	2.0 J	10	4.2	1.6 – 39	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
4,4'-DDE	0 to 2	6/21	29	1.0	10 J	6.6	1.0 – 83	µg/kg dw
	2 to 4	3/21	14	7.0	18 J	6.1	1.0 – 81	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
4,4'-DDT	0 to 2	1/21	5	2.8	2.8	11	2.0 – 150	µg/kg dw
	2 to 4	0/21	0	nd	nd	8.7	1.6 – 140	µg/kg dw
	8 to 10	0/1	0	nd	nd	4.40	8.80	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
DDTs (total-calc'd)	0 to 2	6/21	29	1.0	18 J	13	nc	µg/kg dw
	2 to 4	3/21	14	10.0	20 J	12	nc	µg/kg dw
	8 to 10	0/1	0	nd	nd	4.40	nc	µg/kg dw
Aldrin	0 to 2	0/21	0	nd	nd	1.1	0.98 – 9.1	µg/kg dw
	2 to 4	0/21	0	nd	nd	1.3	0.96 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.600	1.20	µg/kg dw
Dieldrin	0 to 2	1/21	5	1.8	1.8	2.6	2.0 – 28	µg/kg dw
	2 to 4	0/21	0	nd	nd	2.7	1.6 – 29	µg/kg dw
	8 to 10	0/1	0	nd	nd	4.30	8.60	µg/kg dw
Total aldrin/dieldrin	0 to 2	1/21	5	1.8	1.8	2.6	nc	µg/kg dw
	2 to 4	0/21	0	nd	nd	2.7	nc	µg/kg dw
	8 to 10	0/1	0	nd	nd	4.30	nc	µg/kg dw
alpha-BHC	0 to 2	0/20	0	nd	nd	1.1	0.98 – 9.1	µg/kg dw
	2 to 4	0/20	0	nd	nd	1.3	0.96 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
beta-BHC	0 to 2	0/20	0	nd	nd	1.2	0.98 – 9.1	µg/kg dw
	2 to 4	0/20	0	nd	nd	1.3	0.98 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
gamma-BHC	0 to 2	0/21	0	nd	nd	1.2	0.98 – 9.1	µg/kg dw
	2 to 4	0/21	0	nd	nd	1.3	0.96 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
delta-BHC	0 to 2	2/12	17	13	1,100	94	1.0 – 9.1	µg/kg dw
	2 to 4	2/13	15	8.3	29	4.4	0.96 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
alpha-Chlordane	0 to 2	0/20	0	nd	nd	1.1	0.98 – 9.1	µg/kg dw
	2 to 4	0/20	0	nd	nd	1.4	0.98 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
gamma-Chlordane	0 to 2	0/19	0	nd	nd	4.9	0.98 – 62	µg/kg dw
	2 to 4	0/19	0	nd	nd	5.3	0.98 – 82	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.50	3.00	µg/kg dw
Chlordane	0 to 2	1/1	100	29.0	29.0	29.0	na	µg/kg dw
	2 to 4	0/1	0	nd	nd	4.2	8.4	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
alpha-Endosulfan	0 to 2	0/19	0	nd	nd	1.1	0.98 – 9.1	µg/kg dw
	2 to 4	0/19	0	nd	nd	1.3	0.96 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
beta-Endosulfan	0 to 2	0/19	0	nd	nd	2.3	2.0 – 18	µg/kg dw
	2 to 4	0/19	0	nd	nd	2.7	1.9 – 29	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
Endosulfan	0 to 2	0/1	0	nd	nd	0.75	1.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
Endosulfan sulfate	0 to 2	0/19	0	nd	nd	3.9	2.0 – 54	µg/kg dw
	2 to 4	0/19	0	nd	nd	3.7	2.0 – 32	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
Endrin	0 to 2	0/20	0	nd	nd	10	1.5 – 150	µg/kg dw
	2 to 4	0/20	0	nd	nd	4.3	1.6 – 54	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
Endrin aldehyde	0 to 2	1/20	5	10	10	3.6	1.5 – 25	µg/kg dw
	2 to 4	0/20	0	nd	nd	3.5	1.6 – 29	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
Endrin ketone	0 to 2	0/19	0	nd	nd	2.3	2.0 – 18	µg/kg dw
	2 to 4	0/19	0	nd	nd	2.7	1.9 – 29	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.00	2.00	µg/kg dw
Heptachlor	0 to 2	0/21	0	nd	nd	1.4	0.98 – 10	µg/kg dw
	2 to 4	0/21	0	nd	nd	1.3	0.96 – 14	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
Heptachlor epoxide	0 to 2	0/20	0	nd	nd	5.6	0.98 – 80	µg/kg dw
	2 to 4	0/20	0	nd	nd	5.4	0.98 – 120	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.50	0.99	µg/kg dw
Methoxychlor	0 to 2	0/20	0	nd	nd	9.5	1.0 – 91	µg/kg dw
	2 to 4	0/20	0	nd	nd	12	1.0 – 140	µg/kg dw
	8 to 10	0/1	0	nd	nd	4.95	9.90	µg/kg dw
Mirex	0 to 2	0/12	0	nd	nd	3.0	2.0 – 18	µg/kg dw
	2 to 4	0/13	0	nd	nd	3.5	1.9 – 29	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Cis-Nonachlor	0 to 2	0/12	0	nd	nd	3.0	2.0 – 18	µg/kg dw
	2 to 4	0/13	0	nd	nd	3.5	1.9 – 29	µg/kg dw
Oxychlordane	0 to 2	0/12	0	nd	nd	4.6	2.0 – 53	µg/kg dw
	2 to 4	0/13	0	nd	nd	6.3	1.9 – 100	µg/kg dw
Toxaphene	0 to 2	0/20	0	nd	nd	93	10 – 910	µg/kg dw
	2 to 4	0/20	0	nd	nd	110	10 – 1,400	µg/kg dw
	8 to 10	0/1	0	nd	nd	49.50	99.00	µg/kg dw
Trans-Nonachlor	0 to 2	0/12	0	nd	nd	3.0	2.0 – 18	µg/kg dw
	2 to 4	0/13	0	nd	nd	3.5	1.9 – 29	µg/kg dw
Total chlordane	0 to 2	0/20	0	nd	nd	5.1	nc	µg/kg dw
	2 to 4	0/20	0	nd	nd	5.8	nc	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.50	nc	µg/kg dw
Grain size								
Fractional % (>9,525 µm)	0 to 2	0/16	0	nd	nd	0.0050	0.010	% dw
	2 to 4	0/14	0	nd	nd	0.0050	0.010	% dw
Fractional % phi >-1 (>2,000 µm)	0 to 2	73/81	90	0.100 J	33.6	3	0.1	% dw
	2 to 4	54/54	100	0.1	32.7	5	na	% dw
	4 to 6	7/7	100	0.20	2.8	1.0	na	% dw
Fractional % phi -2-(-1) (2,000-4,000 µm)	0 to 2	12/16	75	0.030	3.8 J	0.52	0.010	% dw
	2 to 4	11/14	79	0.010	1.5	0.29	0.010	% dw
Fractional % phi -1-0 (1,000-2,000 µm)	0 to 2	107/108	99	0.020 J	11	1	0.010	% dw
	2 to 4	78/78	100	0.080 J	22.5	2	na	% dw
	4 to 6	8/9	89	0.30	2.9	0.98	0.010	% dw
	6 to 8	6/6	100	0.100	0.500	0.200	na	% dw
Fractional % phi 0-1 (500-1,000 µm)	0 to 2	108/108	100	0.1	30.6	4	na	% dw
	2 to 4	77/77	100	0.2	39.2	6	na	% dw
	4 to 6	8/8	100	1.0	15	5.8	na	% dw
Fractional % phi 1-2 (250-500 µm)	0 to 2	108/108	100	0.70	61.1	9	na	% dw
	2 to 4	77/77	100	0.36 J	68.7	10	na	% dw
	4 to 6	8/8	100	6.1	66	22	na	% dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Fractional % phi 2-3 (125-250 µm)	0 to 2	108/108	100	0.7	29.5	8	na	% dw
	2 to 4	77/77	100	0.5	47.9	10	na	% dw
	4 to 6	8/8	100	6.9	30	17	na	% dw
Fractional % phi 3-4 (62.5-125 µm)	0 to 2	108/108	100	0.10 J	27.6	9.9	na	% dw
	2 to 4	80/80	100	0.3	36.8	10	na	% dw
	4 to 6	9/9	100	0.90	30	13	na	% dw
	6 to 8	6/6	100	3.20	42.8	24.9	na	% dw
Fractional % phi 4-5 (31.2-62.5 µm)	0 to 2	108/108	100	1.2	29	10	na	% dw
	2 to 4	80/80	100	0.100 J	25.3 J	9	na	% dw
	4 to 6	9/9	100	0.60	15	8.1	na	% dw
	6 to 8	6/6	100	0.800 J	18.5	11.8	na	% dw
Fractional % phi 5-6 (15.6-31.2 µm)	0 to 2	107/107	100	0.8	44	20	na	% dw
	2 to 4	76/76	100	0.100 J	41.1	10	na	% dw
	4 to 6	9/9	100	0.20	19	9.6	na	% dw
	6 to 8	6/6	100	0.500 J	17.1 J	9.30	na	% dw
Fractional % phi 6-7 (7.8-15.6 µm)	0 to 2	107/107	100	0.7	37.7	20	na	% dw
	2 to 4	76/76	100	0.1	32.8	10	na	% dw
	4 to 6	9/9	100	0.10	21	8.8	na	% dw
	6 to 8	6/6	100	0.600 J	17.9 J	7.00	na	% dw
Fractional % phi 7-8 (3.9-7.8 µm)	0 to 2	107/107	100	0.6	16	7	na	% dw
	2 to 4	76/76	100	0.100 J	17.5	7	na	% dw
	4 to 6	9/9	100	0.10	13	5.4	na	% dw
	6 to 8	6/6	100	0.600 J	18.2 J	5.65	na	% dw
Fractional % phi 8-9 (1.95-3.9 µm)	0 to 2	106/107	99	0.3	9.0	4	0.010	% dw
	2 to 4	76/76	100	0.010	11.5	4	na	% dw
	4 to 6	9/9	100	0.10	6.0	2.8	na	% dw
	6 to 8	6/6	100	0.400 J	12.0 J	3.65	na	% dw
Fractional % phi 9+ (<1.95 µm)	0 to 2	1/1	100	0.100 J	0.100 J	0.100	na	% dw
Fractional % phi 9-10 (0.98-1.95 µm)	0 to 2	105/107	98	0.1	6.4	3	0.010	% dw
	2 to 4	75/76	99	0.010	9.0	3	0.1	% dw
	4 to 6	9/9	100	0.10	4.0	1.8	na	% dw
	6 to 8	6/6	100	0.300 J	6.90 J	2.13	na	% dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Fractional % phi 10+ (<0.98 µm)	0 to 2	107/107	100	0.7	15.8	7	na	% dw
	2 to 4	76/76	100	0.400 J	20.2	7	na	% dw
	4 to 6	9/9	100	0.60	8.4	4.2	na	% dw
	6 to 8	6/6	100	0.300 J	10.9 J	3.55	na	% dw
Fractional % Sieve #10 (2,000-4,750 µm)	0 to 2	4/6	67	2.0	10	4.0	0.010	% dw
	4 to 6	0/1	0	nd	nd	0.0050	0.010	% dw
Fractional % Sieve 3/8 in. (4,750-9,525 µm)	0 to 2	3/16	19	0.47 J	12 J	1.3	0.010	% dw
	2 to 4	2/14	14	0.53	0.65	0.089	0.010	% dw
Fractional % Sieve #4 (>4,750 µm)	0 to 2	4/6	67	1.0	46	9.8	0.010	% dw
	4 to 6	0/1	0	nd	nd	0.0050	0.010	% dw
Gravel (total calc'd)	0 to 2	90/103	87	0.030	51	4	nc	% dw
	2 to 4	65/68	96	0.010	32.7	4	nc	% dw
	4 to 6	7/8	88	0.20	2.8	0.88	nc	% dw
Sand (total calc'd)	0 to 2	109/109	100	2.8	94.4	33	nc	% dw
	2 to 4	81/81	100	2.20	99.2	40	nc	% dw
	4 to 6	9/9	100	20.7	97	55	nc	% dw
	6 to 8	6/6	100	3.30	42.9	25.1	nc	% dw
Silt (total calc'd)	0 to 2	109/109	100	3.4	82.8	50	nc	% dw
	2 to 4	81/81	100	0.400 J	84.7	40	nc	% dw
	4 to 6	9/9	100	1.00	58	32	nc	% dw
	6 to 8	6/6	100	2.500 J	61.9 J	33.7	nc	% dw
Clay (total calc'd)	0 to 2	108/108	100	0.5	29.8	10	nc	% dw
	2 to 4	77/77	100	0.1	39.9	10	nc	% dw
	4 to 6	9/9	100	0.80	17.6	8.8	nc	% dw
	6 to 8	6/6	100	1.000 J	29.8 J	9.33	nc	% dw
Gravel	0 to 2	1/1	100	24.5	24.5	24.5	na	% dw
	2 to 4	4/4	100	0.100 J	1.0	0.4	na	% dw
	4 to 6	1/1	100	0.100	0.100	0.100	na	% dw
	6 to 8	6/6	100	0.100 J	0.100 J	0.100	na	% dw
Coarse Sand (4,750-2,000 microns)	2 to 4	3/3	100	0.600	31.7	11.1	na	% dw
	4 to 6	1/1	100	1.80	1.80	1.80	na	% dw
	6 to 8	6/6	100	0.500	2.80	1.15	na	% dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Medium Sand (2,000-425 microns)	2 to 4	3/3	100	1.60	60.0	21.7	na	% dw
	4 to 6	1/1	100	4.80	4.80	4.80	na	% dw
	6 to 8	6/6	100	0.900	39.6	8.37	na	% dw
Fine Sand (425-75 microns)	2 to 4	3/3	100	5.40	65.1	25.6	na	% dw
	4 to 6	1/1	100	24.4	24.4	24.4	na	% dw
	6 to 8	6/6	100	3.40	47.8	22.4	na	% dw
Fines (percent silt+clay)	0 to 2	108/108	100	4.7	97.2	64	na	% dw
	2 to 4	80/80	100	1.000 J	96.5	56	na	% dw
	4 to 6	9/9	100	1.80	76	41	na	% dw
	6 to 8	6/6	100	3.500 J	91.7 J	43.1	na	% dw
Conventional parameters								
Total organic carbon (TOC)	0 to 2	137/137	100	0.23	3.46	1.9	na	% dw
	2 to 4	135/135	100	0.061	9	1.8	na	% dw
	4 to 6	60/60	100	0.064	4.01	1	na	% dw
	6 to 8	30/30	100	0.059	3.24	1.2	na	% dw
	8 to 10	24/24	100	0.13	2.8	1.2	na	% dw
Total solids	0 to 2	110/110	100	40.00	85.6	60	na	% ww
	2 to 4	107/107	100	38.50	85.1	66	na	% ww
	4 to 6	60/60	100	47.60	84.25	67	na	% ww
	6 to 8	31/31	100	55.50	83.40	69.3	na	% ww
	8 to 10	24/24	100	54.58	81.2	68.8	na	% ww
Total solids (preserved)	0 to 2	1/1	100	38.63	38.63	38.63	na	% ww
Total volatile solids	0 to 2	1/1	100	7.98	7.98	7.98	na	% dw
	2 to 4	1/1	100	7.53	7.53	7.53	na	% dw
Sulfides (total)	0 to 2	2/2	100	74 J	4,600	2,300	na	mg/kg dw
Cyanide	0 to 2	0/1	0	nd	nd	0.30	0.60	mg/kg dw
	2 to 4	0/1	0	nd	nd	31	61	mg/kg dw
	4 to 6	0/1	0	nd	nd	32	63	mg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Moisture	0 to 2	23/23	100	23.17	132.1	67.7	na	% dw
	2 to 4	3/3	100	25.7	59.3	39.3	na	% ww
	2 to 4	43/43	100	19.85	127.0	67	na	% dw
	4 to 6	1/1	100	60.0	60.0	60.0	na	% ww
	6 to 8	6/6	100	29.1	55.3	44.5	na	% ww
pH	0 to 2	3/3	100	6.8	9.2	8.0	na	pH
Salinity	0 to 2	2/2	100	25.3	25.5	25.4	na	ppt
	2 to 4	2/2	100	25.3	26.2	25.8	na	ppt
	4 to 6	1/1	100	25.3	25.3	25.3	na	ppt
	6 to 8	1/1	100	25.1	25.1	25.1	na	ppt
	8 to 10	1/1	100	25.7	25.7	25.7	na	ppt
Specific Gravity	0 to 2	23/23	100	2.57	2.73	2.7	na	g/cc
	2 to 4	45/45	100	2.06	2.8	2.6	na	g/cc
	6 to 8	1/1	100	2.6	2.6	2.6	na	g/cc
Conductivity	0 to 2	2/2	100	40,200	40,400	40,300	na	umhos/cm
	2 to 4	2/2	100	39,900	41,400	40,700	na	umhos/cm
	4 to 6	1/1	100	40,000	40,000	40,000	na	umhos/cm
	6 to 8	1/1	100	39,600	39,600	39,600	na	umhos/cm
	8 to 10	1/1	100	40,700	40,700	40,700	na	umhos/cm
Volatile organic compounds								
1,1,1,2-Tetrachloroethane	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,1,1-Trichloroethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,1,2,2-Tetrachloroethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,1,2-Trichloroethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,1,2-Trichlorotrifluoroethane	0 to 2	0/2	0	nd	nd	1.7	3.3 – 3.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	1.6	3.1	µg/kg dw
	4 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.10	2.20	µg/kg dw
1,1-Dichloroethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,1-Dichloroethene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,1-Dichloropropene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2,3-Trichlorobenzene	0 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
1,2,3-Trichloropropane	0 to 2	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	2 to 4	0/1	0	nd	nd	1.6	3.1	µg/kg dw
	4 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.10	2.20	µg/kg dw
1,2,4-Trimethylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	1/1	50	420	420	0.550	1.10	µg/kg dw
1,2-Dibromo-3-chloropropane	0 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
1,2-Dibromoethane (EDB)	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,2-Dichloroethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont.   Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2-Dichloropropane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
1,3,5-Trimethylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	1/1	0	nd	nd	0.550	1.10	µg/kg dw
1,3-Dichloropropane	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
2,2-Dichloropropane	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
2-Chloroethyl vinyl ether	0 to 2	0/2	0	nd	nd	4.3	8.3 – 8.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
2-Chlorotoluene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2-Hexanone	0 to 2	0/2	0	nd	nd	4.3	8.3 – 8.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
4-Chlorotoluene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Acetone	0 to 2	1/2	50	50	50	31	25	µg/kg dw
	2 to 4	1/1	100	40	40	40	na	µg/kg dw
	4 to 6	1/1	100	100	100	97	na	µg/kg dw
	6 to 8	1/1	100	160	160	160	na	µg/kg dw
	8 to 10	1/1	100	39.00	39.00	39.00	na	µg/kg dw
Acrolein	0 to 2	0/1	0	nd	nd	42	83	µg/kg dw
	2 to 4	0/1	0	nd	nd	39	78	µg/kg dw
	4 to 6	0/1	0	nd	nd	42	83	µg/kg dw
	6 to 8	0/1	0	nd	nd	41	82	µg/kg dw
	8 to 10	0/1	0	nd	nd	27.00	54.00	µg/kg dw
Acrylonitrile	0 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
Benzene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	1/1	100	4.4	4.4	4.4	na	µg/kg dw
	8 to 10	0/1	nd	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont.   Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Bromobenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Bromochloromethane	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Bromodichloromethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Bromoethane	0 to 2	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	2 to 4	0/1	0	nd	nd	1.6	3.1	µg/kg dw
	4 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.10	2.20	µg/kg dw
Bromoform	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Bromomethane	0 to 2	0/2	0	nd	nd	1.3	1.7 – 3.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
Carbon disulfide	0 to 2	½	50	4.0	4.0	2.5	1.8	µg/kg dw
	2 to 4	1/1	100	4.7	4.7	4.7	na	µg/kg dw
	4 to 6	1/1	100	2.2	2.2	2.2	na	µg/kg dw
	6 to 8	1/1	100	2.8	2.8	2.8	na	µg/kg dw
	8 to 10	1/1	100	2.20	2.20	2.20	na	µg/kg dw
Carbon tetrachloride	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Chlorobenzene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Chloroethane	0 to 2	0/2	0	nd	nd	1.3	1.7 – 3.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Chloroform	0 to 2	½	50	1.8	1.8	1.3	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	nd	nd	nd	0.550	1.10	µg/kg dw
Chloromethane	0 to 2	0/2	0	nd	nd	1.3	1.7 – 3.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit
cis-1,2-Dichloroethene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	1/1	100	5.2	5.2	5.2	na	µg/kg dw
	8 to 10	0/1	nd	nd	nd	0.550	1.10	µg/kg dw
cis-1,3-Dichloropropene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
p-Cymene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	1/1	100	15.00	15.00	15.00	na	µg/kg dw
Dibromochloromethane	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Dibromomethane	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Dichloromethane	0 to 2	0/2	0	nd	nd	1.8	3.3 – 4.0	µg/kg dw
	2 to 4	0/1	0	nd	nd	1.6	3.1	µg/kg dw
	4 to 6	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	1.7	3.3	µg/kg dw
	8 to 10	0/1	0	nd	nd	1.10	2.20	µg/kg dw

Table E.6.2-2, cont.   Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Ethylbenzene	0 to 2	0/3	0	nd	nd	0.93	1.7 – 2.1	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Iodomethane	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Isopropylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Methyl ethyl ketone	0 to 2	1/2	50	17	17	11	8.8	µg/kg dw
	2 to 4	1/1	100	12	12	12	na	µg/kg dw
	4 to 6	1/1	100	27	27	27	na	µg/kg dw
	6 to 8	1/1	100	40	40	40	na	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
n-Butylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
n-Propylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
sec-Butylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Styrene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
tert-Butylbenzene	0 to 2	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Tetrachloroethene	0 to 2	0/3	0	nd	nd	0.93	1.7 – 2.1	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Toluene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	1/1	100	1.9	1.9	1.9	na	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
trans-1,2-Dichloroethene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
trans-1,3-Dichloropropene	0 to 2	0/2	0	nd	nd	0.88	1.7 – 1.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
trans-1,4-Dichloro-2-butene	0 to 2	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
Trichloroethene	0 to 2	0/3	0	nd	nd	0.93	1.7 – 2.1	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Trichlorofluoromethane	0 to 2	0/2	0	nd	nd	1.3	1.7 – 3.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Vinyl acetate	0 to 2	0/2	0	nd	nd	4.3	8.3 – 8.8	µg/kg dw
	2 to 4	0/1	0	nd	nd	3.9	7.8	µg/kg dw
	4 to 6	0/1	0	nd	nd	4.2	8.3	µg/kg dw
	6 to 8	0/1	0	nd	nd	4.1	8.2	µg/kg dw
	8 to 10	0/1	0	nd	nd	2.70	5.40	µg/kg dw
Vinyl chloride	0 to 2	0/2	0	nd	nd	1.3	1.7 – 3.5	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	1/1	100	29	29	29	na	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Xylene (ortho)	0 to 2	0/3	0	nd	nd	0.93	1.7 – 2.1	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	8 to 10	0/1	0	nd	nd	0.550	1.10	µg/kg dw
Xylene (meta & para)	0 to 2	0/3	0	nd	nd	0.93	1.7 – 2.1	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	1.6	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	1.7	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	1.6	µg/kg dw
Total Xylenes (calc'd)	0 to 2	0/3	0	nd	nd	0.93	nc	µg/kg dw
	2 to 4	0/1	0	nd	nd	0.80	nc	µg/kg dw
	4 to 6	0/1	0	nd	nd	0.85	nc	µg/kg dw
	6 to 8	0/1	0	nd	nd	0.80	nc	µg/kg dw
	8 to 10	0/2	0	nd	nd	0.550	nc	µg/kg dw
Dioxins/furans								
2,3,7,8-TCDD	0 to 2	8/8	100	0.325	1.88	0.678	na	ng/kg dw
	2 to 4	7/8	88	0.302	0.920	0.550	0.0440	ng/kg dw
	4 to 6	1/1	100	0.890 J	0.890 J	0.890	na	ng/kg dw
	6 to 8	1/1	100	3.36	3.36	3.36	na	ng/kg dw
	8 to 10	1/1	100	0.324	0.324	0.324	na	ng/kg dw
1,2,3,7,8-PeCDD	0 to 2	8/8	100	0.474 J	3.78	1.85	na	ng/kg dw
	2 to 4	6/8	75	1.15	2.69	1.62	0.0440 – 0.0471	ng/kg dw
	4 to 6	1/1	100	3.61	3.61	3.61	na	ng/kg dw
	6 to 8	1/1	100	10.5	10.5	10.5	na	ng/kg dw
	8 to 10	1/1	100	1.07	1.07	1.07	na	ng/kg dw
1,2,3,4,7,8-HxCDD	0 to 2	8/8	100	0.80 J	6.08	3.12	na	ng/kg dw
	2 to 4	6/8	75	1.53	3.90	2.20	0.0440 – 0.0471	ng/kg dw
	4 to 6	1/1	100	7.19 J	7.19 J	7.19	na	ng/kg dw
	6 to 8	1/1	100	11.2	11.2	11.2	na	ng/kg dw
	8 to 10	1/1	100	0.700 J	0.700 J	0.700	na	ng/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency Ratio	Detection Frequency %	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2,3,6,7,8-HxCDD	0 to 2	8/8	100	3.50 J	37.7	18.7	na	ng/kg dw
	2 to 4	7/8	88	0.103 J	24.4	14.8	0.0471	ng/kg dw
	4 to 6	1/1	100	169	169	169	na	ng/kg dw
	6 to 8	1/1	100	184	184	184	na	ng/kg dw
	8 to 10	1/1	100	4.62	4.62	4.62	na	ng/kg dw
1,2,3,7,8,9-HxCDD	0 to 2	8/8	100	2.88 J	18.6	10.1	na	ng/kg dw
	2 to 4	6/8	75	6.53	13.5	8.14	0.0471 – 0.0660	ng/kg dw
	4 to 6	1/1	100	23.7	23.7	23.7	na	ng/kg dw
	6 to 8	1/1	100	52.3	52.3	52.3	na	ng/kg dw
	8 to 10	1/1	100	2.24	2.24	2.24	na	ng/kg dw
1,2,3,4,6,7,8-HpCDD	0 to 2	8/8	100	100	924	515	na	ng/kg dw
	2 to 4	7/8	88	2.56	732	419	0.307	ng/kg dw
	4 to 6	1/1	100	4,930	4,930	4,930	na	ng/kg dw
	6 to 8	1/1	100	5,930	5,930	5,930	na	ng/kg dw
	8 to 10	1/1	100	72.4	72.4	72.4	na	ng/kg dw
OCDD	0 to 2	8/8	100	970	8,220	4,460	na	ng/kg dw
	2 to 4	8/8	100	2.92	7,140	3,830	na	ng/kg dw
	4 to 6	1/1	100	36,300	36,300	36,300	na	ng/kg dw
	6 to 8	1/1	100	62,000	62,000	62,000	na	ng/kg dw
	8 to 10	1/1	100	453	453	453	na	ng/kg dw
2,3,7,8-TCDF	0 to 2	7/8	88	0.0740 J	6.09	1.59	0.621	ng/kg dw
	2 to 4	4/8	50	1.17	1.66	0.868	0.0440 – 1.26	ng/kg dw
	4 to 6	1/1	100	4.02	4.02	4.02	na	ng/kg dw
	6 to 8	1/1	100	3.32	3.32	3.32	na	ng/kg dw
	8 to 10	1/1	100	1.44	1.44	1.44	na	ng/kg dw
1,2,3,7,8-PeCDF	0 to 2	8/8	100	0.410 J	4.40	1.69	na	ng/kg dw
	2 to 4	6/8	75	0.961	2.47	1.17	0.0440 – 0.0471	ng/kg dw
	4 to 6	1/1	100	18.1	18.1	18.1	na	ng/kg dw
	6 to 8	1/1	100	3.24	3.24	3.24	na	ng/kg dw
	8 to 10	1/1	100	1.19	1.19	1.19	na	ng/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2,3,4,7,8-PeCDF	0 to 2	8/8	100	0.61 J	17.6	5.27	na	ng/kg dw
	2 to 4	7/8	88	0.0670 J	7.65	3.09	0.0471	ng/kg dw
	4 to 6	1/1	100	61.8	61.8	61.8	na	ng/kg dw
	6 to 8	1/1	100	5.92	5.92	5.92	na	ng/kg dw
	8 to 10	1/1	100	2.74	2.74	2.74	na	ng/kg dw
1,2,3,4,7,8-HxCDF	0 to 2	8/8	100	2.72 J	77	21.0	na	ng/kg dw
	2 to 4	7/8	88	0.176 J	52.1	16.0	0.0471	ng/kg dw
	4 to 6	1/1	100	467	467	467	na	ng/kg dw
	6 to 8	1/1	100	40.6	40.6	40.6	na	ng/kg dw
	8 to 10	1/1	100	2.88	2.88	2.88	na	ng/kg dw
1,2,3,6,7,8-HxCDF	0 to 2	8/8	100	0.80 J	12.3 J	5.09	na	ng/kg dw
	2 to 4	6/8	75	2.89	9.78	3.86	0.0440 – 0.0471	ng/kg dw
	4 to 6	1/1	100	76.0	76.0	76.0	na	ng/kg dw
	6 to 8	1/1	100	12.7	12.7	12.7	na	ng/kg dw
	8 to 10	1/1	100	2.71	2.71	2.71	na	ng/kg dw
1,2,3,7,8,9-HxCDF	0 to 2	6/8	75	0.239 J	2.36	0.537	0.047 – 0.113	ng/kg dw
	2 to 4	5/8	62	0.217 J	0.413 J	0.397	0.0440 – 3.02	ng/kg dw
	4 to 6	1/1	100	8.02	8.02	8.02	na	ng/kg dw
	6 to 8	1/1	100	0.983 J	0.983 J	0.983	na	ng/kg dw
	8 to 10	1/1	100	0.128 J	0.128 J	0.128	na	ng/kg dw
2,3,4,6,7,8-HxCDF	0 to 2	8/8	100	0.58 J	6.29	2.91	na	ng/kg dw
	2 to 4	6/8	75	2.15	4.87	2.40	0.0440 – 0.0471	ng/kg dw
	4 to 6	1/1	100	28.2	28.2	28.2	na	ng/kg dw
	6 to 8	1/1	100	9.77	9.77	9.77	na	ng/kg dw
	8 to 10	1/1	100	2.99	2.99	2.99	na	ng/kg dw
1,2,3,4,6,7,8-HpCDF	0 to 2	8/8	100	18.6	273	121	na	ng/kg dw
	2 to 4	7/8	88	0.743 J	314	97.3	0.0471	ng/kg dw
	4 to 6	1/1	100	2,490	2,490	2,490	na	ng/kg dw
	6 to 8	1/1	100	873	873	873	na	ng/kg dw
	8 to 10	1/1	100	65.0	65.0	65.0	na	ng/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency		Concentration				
		Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2,3,4,7,8,9-HpCDF	0 to 2	8/8	100	1.19 J	33.8	11.8	na	ng/kg dw
	2 to 4	6/8	75	5.17	33.0	9.32	0.0471 – 0.0930	ng/kg dw
	4 to 6	1/1	100	299	299	299	na	ng/kg dw
	6 to 8	1/1	100	63.4	63.4	63.4	na	ng/kg dw
	8 to 10	1/1	100	1.88	1.88	1.88	na	ng/kg dw
OCDF	0 to 2	8/8	100	51.7	1,050	416	na	ng/kg dw
	2 to 4	8/8	100	0.0875 J	1,410	349	na	ng/kg dw
	4 to 6	1/1	100	13,500	13,500	13,500	na	ng/kg dw
	6 to 8	1/1	100	4,420	4,420	4,420	na	ng/kg dw
	8 to 10	1/1	100	148	148	148	na	ng/kg dw
Dioxin/furan TEQ - Bird	0 to 2	8/8	100	2.80 J	43.0 J	16.2	na	ng/kg dw
	2 to 4	8/8	100	0.178 J	22.9	11.5	na	ng/kg dw
	4 to 6	1/1	100	172 J	172 J	172	na	ng/kg dw
	6 to 8	1/1	100	59.4 J	59.4 J	59.4	na	ng/kg dw
	8 to 10	1/1	100	7.67 J	7.67 J	7.67	na	ng/kg dw
Dioxin/furan TEQ - Fish	0 to 2	8/8	100	2.36 J	29.2 J	12.3	na	ng/kg dw
	2 to 4	8/8	100	0.129 J	18.5	9.33	na	ng/kg dw
	4 to 6	1/1	100	138 J	138 J	138	na	ng/kg dw
	6 to 8	1/1	100	53.5 J	53.5 J	53.5	na	ng/kg dw
	8 to 10	1/1	100	4.99 J	4.99 J	4.99	na	ng/kg dw
Dioxin/furan TEQ - Mammal	0 to 2	8/8	100	3.60 J	38.7 J	18.3	na	ng/kg dw
	2 to 4	8/8	100	0.147 J	27.1	14.5	na	ng/kg dw
	4 to 6	1/1	100	194 J	194 J	194	na	ng/kg dw
	6 to 8	1/1	100	136 J	136 J	136	na	ng/kg dw
	8 to 10	1/1	100	5.60 J	5.60 J	5.60	na	ng/kg dw
Petroleum groups								
Gasoline	0 to 2	0/1	0	nd	nd	12	24	mg/kg dw
	2 to 4	0/1	0	nd	nd	12	24	mg/kg dw
	4 to 6	0/1	0	nd	nd	13	25	mg/kg dw
TPH - Diesel Range	8 to 10	1/1	100	19	19	19	na	mg/kg dw

Table E.6.2-2, cont. Subsurface sediment data, 2-ft intervals

Chemical	Depth Interval	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
TPH - Diesel #2 Range	0 to 2	0/1	0	nd	nd	30	60	mg/kg dw
	2 to 4	0/1	0	nd	nd	31	61	mg/kg dw
	4 to 6	0/1	0	nd	nd	32	63	mg/kg dw
TPH - Motor Oil Range	8 to 10	1/1	100	22	22	22	na	mg/kg dw
TPH - Heavy Fuel Oil Range	0 to 2	0/1	0	nd	nd	60	120	mg/kg dw
	2 to 4	0/1	0	nd	nd	60	120	mg/kg dw
	4 to 6	0/1	0	nd	nd	65	130	mg/kg dw
TPH	0 to 2	6/6	100	26	4,300	1,200	na	mg/kg dw
Geotechnical								
Liquid Limit	0 to 2	12/12	100	49.9	96.2	69.6	na	% dw
	2 to 4	32/32	100	0.100	165	62.0	na	% dw
	6 to 8	3/3	100	0.100	49.4	16.5	na	% dw
Plastic Limit	0 to 2	12/12	100	27.4	60.2	38.4	na	% dw
	2 to 4	32/32	100	0.100	63.4	35.9	na	% dw
	6 to 8	3/3	100	0.100	27.4	9.20	na	% dw
Plasticity Index	0 to 2	12/12	100	17.0	49.9	31.2	na	% dw
	2 to 4	32/32	100	0.10	119	26	na	% dw
	6 to 8	3/3	100	0.10	22	7.4	na	% dw
Bulk Density (dry)	0 to 2	23/23	100	37.9	100.0	64.9	na	pcf
	2 to 4	43/43	100	36.2	112.5	65	na	pcf
Bulk Density (wet)	0 to 2	23/23	100	82.1	127.7	103	na	pcf
	2 to 4	43/43	100	75.0	134.8	100	na	pcf
Porosity	0 to 2	23/23	100	0.41	0.76	0.61	na	S.U.
	2 to 4	43/43	100	0.34	0.79	0.61	na	S.U.

[a] Data were assigned to sample intervals by first rounding (to the nearest foot) the top and bottom depths of each sample (in feet below mudline) and then assigning the data to the appropriate sampling interval category (i.e., 0-to-2-ft intervals to a depth of 10 ft below mudline). If there were data for two 1-ft intervals at a particular location, the concentrations were averaged to obtain an estimated concentration for the corresponding 2-ft interval category (e.g., if a location had data for both the 0-to-1- and 1-to-2 ft intervals, the concentrations were averaged for an estimated concentration for the 0-to-2-ft interval). Data from dredged areas were not included.

[b] Surface sediment data were compared to the LAET and 2LAET instead of the SQS and CSL, respectively, if the TOC content was <0.5% or >4.0%.

Table E.6.2-3. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Aluminum	82/82	100	3,410	33,000	20,000	na	mg/kg dw
Antimony	31/254	12	0.400	590 J	10	0.040 - 40	mg/kg dw
Arsenic	267/325	82	3.9	2,000	40	3.0 - 10.0	mg/kg dw
Barium	82/82	100	8.34	640	82	na	mg/kg dw
Beryllium	90/92	98	0.10	0.590	0.3	0.10 - 0.10	mg/kg dw
Cadmium	257/388	66	0.0880	20.4	1	0.18 - 0.9	mg/kg dw
Calcium	78/78	100	1,950	28,000	6,300	na	mg/kg dw
Chromium	397/397	100	6.67	386	40	na	mg/kg dw
Chromium VI	0/2	0	nd	nd	7.5	15	mg/kg dw
Cobalt	251/251	100	2.54	106	9	na	mg/kg dw
Copper	397/397	100	7.1	2,940	80	na	mg/kg dw
Iron	82/82	100	7,130	65,000 J	27,000	na	mg/kg dw
Lead	361/394	92	2.8	3,520 J	80	2 - 3.6	mg/kg dw
Magnesium	78/78	100	1,640	11,000	6,400	na	mg/kg dw
Manganese	82/82	100	82	940	290	na	mg/kg dw
Mercury	341/436	78	0.020	10	0.2	0.020 - 0.100	mg/kg dw
Molybdenum	128/187	68	0.6	166	4	0.6 - 2.5	mg/kg dw
Nickel	317/317	100	4.8	226	20	na	mg/kg dw
Potassium	77/77	100	370	3,900	2,200	na	mg/kg dw
Selenium	18/252	7	0.20 J	14	4	1.0 - 40	mg/kg dw
Silver	166/372	45	0.050	7.5	0.7	0.30 - 1	mg/kg dw
Sodium	78/78	100	720	16,900 J	8,000	na	mg/kg dw
Thallium	23/247	9	0.030 J	13	4	0.080 - 40	mg/kg dw
Tin	31/31	100	2.0	46	8.8	na	mg/kg dw
Vanadium	251/251	100	18	223	62	na	mg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Zinc	396/396	100	16.2 J	4,720	200	na	mg/kg dw
Organometals							
Monobutyltin as ion	21/84	25	4.5	170 J	9.5	1.0 - 65	µg/kg dw
Dibutyltin as ion	41/84	49	6.4	960	38	1.0 - 11	µg/kg dw
Tributyltin as ion	58/95	61	0.55 J	6,200	210	1.0 - 5.4	µg/kg dw
Tetrabutyltin as ion	4/23	17	5.0 J	40	9.0	3.0 - 15	µg/kg dw
PAHs							
1-Methylnaphthalene	18/185	10	20	2,600	45	19 - 160	µg/kg dw
2-Chloronaphthalene	1/270	<1	16 J	16 J	30	18 - 400	µg/kg dw
2-Methylnaphthalene	43/281	15	2.9 J	4,500	40	1.6 - 400	µg/kg dw
Acenaphthene	94/304	31	1.3 J	4,600	80	4.30 - 400	µg/kg dw
Acenaphthylene	53/281	19	10 J	280	20	1.9 - 400	µg/kg dw
Anthracene	200/304	66	4.3 J	1,900	100	4.30 - 400	µg/kg dw
Benzo(a)anthracene	243/304	80	12 J	4,500	300	4.30 - 180	µg/kg dw
Benzo(a)pyrene	237/304	78	11 J	5,300	300	4.30 - 400	µg/kg dw
Benzo(b)fluoranthene	247/304	81	9.9 J	6,400	400	4.30 - 820	µg/kg dw
Benzo(g,h,i)perylene	207/298	69	11 J	1,000	100	4.30 - 400	µg/kg dw
Benzo(k)fluoranthene	242/304	80	10 J	4,100	300	4.30 - 400	µg/kg dw
Total benzofluoranthenes	248/304	82	21 J	10,200	700	nc	µg/kg dw
Chrysene	247/304	81	12 J	7,200	400	4.30 - 180	µg/kg dw
Dibenzo(a,h)anthracene	119/304	39	3.2 J	660 J	60	4.30 - 910	µg/kg dw
Dibenzofuran	58/304	19	2.9 J	1,700	50	1.7 - 400	µg/kg dw
Fluoranthene	262/304	86	12 J	13,000	800	4.30 - 340	µg/kg dw
Fluorene	104/304	34	4.9 J	4,300	80	2.3 - 400	µg/kg dw
Indeno(1,2,3-cd)pyrene	212/298	71	10 J	1,500	100	4.30 - 400	µg/kg dw
Naphthalene	70/293	24	1.9 J	3,400	50	1.7 - 400	µg/kg dw
Phenanthrene	244/304	80	10 J	13,000	300	4.30 - 400	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
Pyrene	266/304	88	9.9 J	10,000	800	4.30 - 170	µg/kg dw
Total HPAH (calc'd)	268/304	88	9.9 J	47,000	3,000	nc	µg/kg dw
Total LPAH (calc'd)	244/304	80	12.00	27,000 J	600	nc	µg/kg dw
Carcinogenic PAHs	252/304	83	18	7,000	400	3.89 - 400	µg/kg dw
Total PAH (calc'd)	269/304	88	9.9 J	57,000 J	4,000	nc	µg/kg dw
Phthalates							
Bis(2-ethylhexyl)phthalate	216/306	71	12 J	5,100	500	19 - 2,400	µg/kg dw
Butyl benzyl phthalate	147/283	52	5.6 J	610	30	5.8 - 400	µg/kg dw
Diethyl phthalate	1/306	<1	2,700	2,700	40	4.6 - 400	µg/kg dw
Dimethyl phthalate	20/283	7	4.2 J	8,800	60	2.4 - 400	µg/kg dw
Di-n-butyl phthalate	60/283	21	6.5 J	280	30	10 - 400	µg/kg dw
Di-n-octyl phthalate	14/306	5	14 J	2,000	70	1.6 - 1,600	µg/kg dw
Other SVOCs							
1,2,4-Trichlorobenzene	27/293	9	3.6 J	110 J	7	0.87 - 400	µg/kg dw
1,2-Dichlorobenzene	31/292	11	0.98 J	160	7	0.78 - 400	µg/kg dw
1,2-Diphenylhydrazine	1/32	3	100 J	100 J	93	60 - 310	µg/kg dw
1,3-Dichlorobenzene	6/288	2	1 J	12	20	0.78 - 400	µg/kg dw
1,4-Dichlorobenzene	56/292	19	2.1 J	750 J	9	0.86 - 400	µg/kg dw
2,4,5-Trichlorophenol	0/247	0	nd	nd	120	95.00 - 2,000	µg/kg dw
2,4,6-Trichlorophenol	0/247	0	nd	nd	120	95.00 - 2,000	µg/kg dw
2,4-Dichlorophenol	0/247	0	nd	nd	100	30 - 1,200	µg/kg dw
2,4-Dimethylphenol	21/281	7	3.7 J	46	10	5.8 - 790	µg/kg dw
2,4-Dinitrophenol	1/247	<1	300	300	200	60 - 4,000	µg/kg dw
2,4-Dinitrotoluene	0/247	0	nd	nd	110	12 - 2,000	µg/kg dw
2,6-Dinitrotoluene	0/247	0	nd	nd	110	12 - 2,000	µg/kg dw
2-Chlorophenol	0/247	0	nd	nd	20	19 - 400	µg/kg dw
2-Methylphenol	29/281	10	3.0 J	160	9	4.5 - 400	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2-Nitroaniline	0/247	0	nd	nd	110	95.00 - 2,000	µg/kg dw
2-Nitrophenol	0/247	0	nd	nd	110	30 - 2,000	µg/kg dw
3,3'-Dichlorobenzidine	0/247	0	nd	nd	110	30 - 2,000	µg/kg dw
3-Nitroaniline	0/247	0	nd	nd	120	96 - 2,000	µg/kg dw
4,6-Dinitro-o-cresol	0/247	0	nd	nd	200	60 - 4,000	µg/kg dw
4-Bromophenyl phenyl ether	0/247	0	nd	nd	20	12 - 400	µg/kg dw
4-Chloro-3-methylphenol	0/247	0	nd	nd	97	38.00 - 790	µg/kg dw
4-Chloroaniline	2/256	1	47 J	230 J	100	57.00 - 1,200	µg/kg dw
4-Chlorophenyl phenyl ether	0/247	0	nd	nd	20	18 - 400	µg/kg dw
4-Methylphenol	15/304	5	8.6 J	110 J	30	3.8 - 400	µg/kg dw
4-Nitroaniline	0/247	0	nd	nd	110	95.00 - 2,000	µg/kg dw
4-Nitrophenol	0/247	0	nd	nd	110	60 - 2,000	µg/kg dw
Aniline	0/203	0	nd	nd	27	19 - 230	µg/kg dw
Benzaldehyde	10/23	43	110 J	320	200	130 - 290	µg/kg dw
Benzoic acid	122/304	40	35 J	3,000 J	200	58 - 4,000	µg/kg dw
Benzyl alcohol	32/281	11	7.7 J	210	30	4.9 - 2,000	µg/kg dw
bis(2-chloroethoxy)methane	0/247	0	nd	nd	20	19 - 400	µg/kg dw
bis(2-chloroethyl)ether	0/247	0	nd	nd	20	18 - 400	µg/kg dw
bis(2-chloroisopropyl)ether	0/247	0	nd	nd	20	19 - 400	µg/kg dw
Caprolactam	0/23	0	nd	nd	600	670 - 1,600	µg/kg dw
Carbazole	22/85	26	20	240 J	60	19.00 - 400	µg/kg dw
Coprostanol	0/9	0	nd	nd	77	120 - 220	µg/kg dw
Hexachlorobenzene	3/280	1	4.6 J	10	6	0.78 - 400	µg/kg dw
Hexachlorobutadiene	2/293	1	5.9 J	13	8	0.96 - 790	µg/kg dw
Hexachlorocyclopentadiene	0/265	0	nd	nd	150	34 - 2,000	µg/kg dw
Hexachloroethane	0/277	0	nd	nd	20	2.9 - 790	µg/kg dw
Isophorone	0/270	0	nd	nd	30	19.00 - 400	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Methyl isobutyl ketone	1/32	3	7.8	7.8	4.5	4.60 - 39	µg/kg dw
Nitrobenzene	0/247	0	nd	nd	20	19 - 400	µg/kg dw
N-Nitrosodimethylamine	0/194	0	nd	nd	21	29 - 220	µg/kg dw
N-Nitroso-di-n-propylamine	7/247	3	21 J	320	22	29 - 400	µg/kg dw
N-Nitrosodiphenylamine	1/281	<1	33	33	50	2.9 - 7,300	µg/kg dw
Pentachlorophenol	54/304	18	16 J	930 J	130	12 - 3,100	µg/kg dw
Phenol	57/304	19	12 J	3,100	50	4.4 - 790	µg/kg dw
Retene	18/23	78	120 J	300 J	200	300 - 370	µg/kg dw
Polychlorinated biphenyls							
PCB-018	18/31	58	1.0 J	270 J	11	1.0	µg/kg dw
PCB-028	20/31	65	1.0	220	11	1.0	µg/kg dw
PCB-044	22/31	71	1.0	52	6.8	1.0	µg/kg dw
PCB-055	23/31	74	1.0	150	13	1.0	µg/kg dw
PCB-066	23/31	74	2.0	140	20	1.0	µg/kg dw
PCB-077	3/34	9	1.42	3.28	0.92	1.0 - 9.0	µg/kg dw
PCB-081	3/34	9	0.970	1.10	0.56	1.0 - 2.0	µg/kg dw
PCB-101	22/31	71	1.0	130	16	1.0	µg/kg dw
PCB-105	23/34	68	1.0	43	7.0	1.0	µg/kg dw
PCB-114	5/34	15	0.628	5.0 J	0.87	1.0 - 4.0	µg/kg dw
PCB-118	26/34	76	1.0	110	18	1.0	µg/kg dw
PCB-123	3/34	9	0.421	0.710	0.96	1.0	µg/kg dw
PCB-126	6/34	18	0.0485	4.0	0.62	1.0	µg/kg dw
PCB-128	20/31	65	1.0	27	3.8	1.0	µg/kg dw
PCB-138	24/31	77	1.0	160	25	1.0	µg/kg dw
PCB-153	23/31	74	2.0	98	17	1.0	µg/kg dw
PCB-156	18/34	53	1.0	16	2.7	1.0	µg/kg dw
PCB-157	8/34	24	0.803	3.0	0.85	1.0	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-167	12/34	35	1.0 J	8.0	1.4	1.0	µg/kg dw
PCB-169	1/34	3	0.0545 J	0.0545 J	0.46	0.0599 - 1.0	µg/kg dw
PCB-170	21/34	62	2.0	29	6.7	1.0 - 7.0	µg/kg dw
PCB-180	26/34	76	1.0	53	12	1.0	µg/kg dw
PCB-187	22/31	71	1.0	28	5.9	1.0	µg/kg dw
PCB-189	4/34	12	0.416	1.0	0.51	1.0	µg/kg dw
PCB-195	11/31	35	1.0	6.0	1.2	1.0	µg/kg dw
PCB-206	11/31	35	1.0	3.0	1.0	1.0	µg/kg dw
PCB-209	2/31	6	1.0	1.0	0.53	1.0	µg/kg dw
Aroclor-1016	0/799	0	nd	nd	60	0.10 - 24,000	µg/kg dw
Aroclor-1221	0/763	0	nd	nd	60	0.10 - 27,000	µg/kg dw
Aroclor-1232	0/763	0	nd	nd	50	0.10 - 14,000	µg/kg dw
Aroclor-1242	90/803	11	5.2	2,500	90	0.10 - 24,000	µg/kg dw
Aroclor-1248	234/821	29	4.4 J	13,000	200	0.10 - 24,000	µg/kg dw
Aroclor-1254	518/804	64	0.52 J	81,000	800	0.10 - 130,000	µg/kg dw
Aroclor-1254/1260	16/17	94	34	1,700	190	85	µg/kg dw
Aroclor-1260	509/804	63	5.6	890,000	2,000	0.10 - 15,000	µg/kg dw
Aroclor-1262	6/28	21	120 J	13,000	870	6.5 - 23	µg/kg dw
Aroclor-1268	0/22	0	nd	nd	5.3	6.5 - 23	µg/kg dw
PCBs (total calc'd)	609/821	74	0.52 J	890,000	3,000	nc	µg/kg dw
PCB TEQ - Bird	3/3	100	0.181 J	0.288	0.234	na	µg/kg dw
PCB TEQ - Fish	3/3	100	0.001200 J	0.001900	0.00156	na	µg/kg dw
PCB TEQ - Mammal	3/3	100	0.00875 J	0.01430	0.0117	na	µg/kg dw
Organochlorine pesticides							
2,4'-DDD	0/40	0	nd	nd	3.8	1.9 - 29	µg/kg dw
2,4'-DDE	0/40	0	nd	nd	8.7	1.9 - 100	µg/kg dw
2,4'-DDT	0/40	0	nd	nd	3.8	1.9 - 29	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
4,4'-DDD	13/95	14	0.27 J	10	3.1	1.5 - 39	µg/kg dw
4,4'-DDE	14/95	15	0.45 J	18 J	5.2	0.62 - 90	µg/kg dw
4,4'-DDT	5/95	5	0.64 J	2.8	10	0.96 - 160	µg/kg dw
DDTs (total-calc'd)	16/95	17	0.27 J	20 J	12	nc	µg/kg dw
Aldrin	1/95	1	1.5 J	1.5 J	1.2	0.33 - 16.00	µg/kg dw
Dieldrin	3/95	3	0.80 J	1.8	3.7	0.14 - 95.00	µg/kg dw
Total aldrin/dieldrin (calc'd)	4/95	4	0.80 J	1.8	3.7	nc	µg/kg dw
alpha-BHC	3/71	4	0.20 J	0.47 J	1.3	0.086 - 14	µg/kg dw
beta-BHC	0/66	0	nd	nd	1.5	0.96 - 24	µg/kg dw
gamma-BHC	0/95	0	nd	nd	1.1	0.099 - 14	µg/kg dw
delta-BHC	7/48	15	7.0	1,100	27	0.96 - 14	µg/kg dw
alpha-Chlordane	1/89	1	0.44 J	0.44 J	1.2	0.052 - 14	µg/kg dw
gamma-Chlordane	4/87	5	0.22 J	0.71 J	4.4	0.92 - 82	µg/kg dw
Chlordane	1/6	17	29.0	29.0	13	7.5 - 35	µg/kg dw
Total chlordane (calc'd)	4/89	4	0.22 J	1.59 J	4.8	nc	µg/kg dw
alpha-Endosulfan	0/62	0	nd	nd	1.4	0.96 - 14	µg/kg dw
beta-Endosulfan	0/62	0	nd	nd	3.1	1.90 - 29	µg/kg dw
Endosulfan	0/4	0	nd	nd	0.79	1.5 - 1.6	µg/kg dw
Endosulfan sulfate	0/62	0	nd	nd	4.3	1.90 - 69	µg/kg dw
Endrin	0/66	0	nd	nd	7.3	1.5 - 150	µg/kg dw
Endrin aldehyde	1/66	2	10	10	3.6	1.5 - 29	µg/kg dw
Endrin ketone	0/62	0	nd	nd	3.1	1.90 - 29	µg/kg dw
Heptachlor	2/95	2	0.25 J	1.3	1.2	0.097 - 14	µg/kg dw
Heptachlor epoxide	0/66	0	nd	nd	5.4	0.96 - 120	µg/kg dw
Methoxychlor	0/66	0	nd	nd	12	1.0 - 140	µg/kg dw
Mirex	0/40	0	nd	nd	3.8	1.9 - 29	µg/kg dw
Toxaphene	0/66	0	nd	nd	120	10 - 1,400	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Trans-Nonachlor	1/45	2	0.44 J	0.44 J	3.4	0.53 - 29	µg/kg dw
Grain size							
Fractional % (>9525 µm)	0/31	0	nd	nd	0.0050	0.010	% dw
Fractional % phi >-1 (>2000 µm)	217/245	89	0.1	44.4	3	0.100	% dw
Fractional % phi -2-(-1) (2,000-4,000 µm)	24/31	77	0.010	3.8 J	0.40	0.010	% dw
Fractional % phi -1-0 (1,000-2,000 µm)	344/362	95	0.010 J	22.5	2	0.010 - 0.1	% dw
Fractional % phi 0-1 (500-1,000 µm)	352/354	99	0.1	41.4	6	0.010	% dw
Fractional % phi 1-2 (250-500 µm)	353/354	100	0.36 J	68.7	10	0.1 - 0.1	% dw
Fractional % phi 2-3 (125-250 µm)	354/354	100	0.5	47.9	10	na	% dw
Fractional % phi 3-4 (62.5-125 µm)	362/362	100	0.10 J	42.8	10	na	% dw
Fractional % phi 4-5 (31.2-62.5 µm)	354/355	100	0.100 J	29	10	0.010	% dw
Fractional % phi 5-6 (15.6-31.2 µm)	344/345	100	0.1	46.4 J	10	0.010	% dw
Fractional % phi 6-7 (7.8-15.6 µm)	344/346	99	0.1	37.7	10	0.010	% dw
Fractional % phi 7-8 (3.9-7.8 µm)	341/344	99	0.10	18.2 J	6	0.010	% dw
Fractional % phi 8-9 (1.95-3.9 µm)	339/345	98	0.010	12.0 J	4	0.010 - 0.1	% dw
Fractional % phi 9+ (<1.95 µm)	1/1	100	0.100 J	0.100 J	0.100	na	% dw
Fractional % phi 9-10 (0.98-1.95 µm)	333/345	97	0.010	9.0	3	0.010 - 0.1	% dw
Fractional % phi 10+ (<0.98 µm)	333/344	97	0.300	20.2	6	0.010 - 0.100	% dw
Fractional % Sieve #10 (2,000-4,750 µm)	23/45	51	1.0	13	1.4	0.010	% dw
Fractional % Sieve 3/8 in. (4,750-9,525 µm)	6/31	19	0.19 J	12 J	0.70	0.010	% dw
Fractional % Sieve #4 (>4,750 µm)	16/43	37	1.0	56	3.4	0.010	% dw
Gravel (total calc'd)	267/322	83	0.010	69	3	nc	% dw
Sand (total calc'd)	378/378	100	2.20	100	42	na	% dw
Silt (total calc'd)	373/374	100	0.400 J	84.7	40	nc	% dw
Clay (total calc'd)	363/365	99	0.1	39.9	10	nc	% dw
Gravel	23/24	96	0.100 J	27.0	3	0.010 - 0.010	% dw
Coarse sand (4750-2000 microns)	11/11	100	0.500	31.7	4.02	na	% dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Medium sand (2000-425 microns)	11/11	100	0.900	60.0	11.2	na	% dw
Fine sand (425-75 microns)	11/11	100	3.40	65.1	22.1	na	% dw
Fines (percent silt+clay)	355/355	100	1.0	97.2	56	na	% dw
Conventional parameters							
Total organic carbon (TOC)	825/825	100	0.011	17	1	na	% dw
Total solids	701/701	100	26.0	92.60	67	na	% ww
Total solids (preserved)	1/1	100	38.63	38.63	38.63	na	% ww
Total volatile solids	31/31	100	0.77	8.6	6.3	na	% dw
Sulfides (total)	30/32	94	74 J	4,600	1,300	1.1 - 1.3	mg/kg dw
Ammonia (total as nitrogen)	28/28	100	13	200	89	na	mg-N/kg dw
Cyanide	1/5	20	0.35	0.35	13	0.14 - 63	mg/kg dw
Moisture	108/108	100	19.85	161.7	67	na	% dw
Moisture	13/13	100	25.7	81.6	45	na	% ww
pH	5/5	100	6.8	9.2	7.9	na	pH
Salinity	8/8	100	24.6	26.2	25.4	na	ppt
Specific gravity	111/111	100	2.06	2.8	2.6	na	g/cc
Conductivity	8/8	100	38,900	41,400	40,000	na	µmhos/cm
Volatile organic compounds							
1,1,1,2-Tetrachloroethane	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
1,1,1-Trichloroethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
1,1,2,2-Tetrachloroethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
1,1,2-Trichloroethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
1,1,2-Trichlorotrifluoroethane	0/31	0	nd	nd	1.5	1.80 - 11	µg/kg dw
1,1-Dichloroethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
1,1-Dichloroethene	2/32	6	120	320	15	0.90 - 9.6	µg/kg dw
1,1-Dichloropropene	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
1,2,3-Trichlorobenzene	0/24	0	nd	nd	4.2	4.60 - 39	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2,3-Trichloropropane	0/24	0	nd	nd	1.5	1.80 - 9.6	µg/kg dw
1,2,4-Trimethylbenzene	3/24	13	14 J	580 J	44	0.90 - 39	µg/kg dw
1,2-Dibromo-3-chloropropane	0/24	0	nd	nd	4.2	4.60 - 39	µg/kg dw
1,2-Dibromoethane (EDB)	0/24	0	nd	nd	1.5	0.90 - 39	µg/kg dw
1,2-Dichloroethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
1,2-Dichloropropane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
1,3,5-Trimethylbenzene	4/24	17	1.9	350 J	24	0.90 - 39	µg/kg dw
1,3-Dichloropropane	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
2,2-Dichloropropane	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
2-Chloroethyl vinyl ether	0/31	0	nd	nd	3.9	4.60 - 28	µg/kg dw
2-Chlorotoluene	0/24	0	nd	nd	1.5	0.90 - 39	µg/kg dw
2-Hexanone	0/32	0	nd	nd	4.3	4.60 - 39	µg/kg dw
4-Chlorotoluene	0/24	0	nd	nd	1.5	0.90 - 39	µg/kg dw
Acetone	26/32	81	8.20	640	110	6.6 - 37	µg/kg dw
Acrolein	0/23	0	nd	nd	35	46.00 - 99	µg/kg dw
Acrylonitrile	0/23	0	nd	nd	3.5	4.60 - 9.9	µg/kg dw
Benzene	5/32	16	4.4	62	5.7	0.90 - 9.6	µg/kg dw
Bromobenzene	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
Bromochloromethane	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
Bromodichloromethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
Bromoethane	0/23	0	nd	nd	1.4	1.80 - 4.0	µg/kg dw
Bromoform	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
Bromomethane	0/32	0	nd	nd	1.1	0.90 - 11	µg/kg dw
Carbon disulfide	16/32	50	1.30	18	2.8	0.90 - 9.6	µg/kg dw
Carbon tetrachloride	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
Chlorobenzene	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
Chloroethane	0/32	0	nd	nd	1.1	0.90 - 11	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Chloroform	1/32	3	1.8	1.8	0.93	0.90 - 9.6	µg/kg dw
Chloromethane	0/32	0	nd	nd	1.1	0.90 - 11	µg/kg dw
cis-1,2-Dichloroethene	7/32	22	2.2	200,000	11,000	0.90 - 9.6	µg/kg dw
cis-1,3-Dichloropropene	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
p-Cymene	5/24	21	4.1 J	130 J	12	0.90 - 39	µg/kg dw
Dibromochloromethane	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
Dibromomethane	0/24	0	nd	nd	0.88	0.90 - 9.6	µg/kg dw
Dichlorodifluoromethane	0/1	0	nd	nd	4.8	9.6	µg/kg dw
Dichloromethane	10/32	31	1.5 J	5.90	2.3	1.90 - 11	µg/kg dw
Ethylbenzene	3/58	5	27	360 J	12	0.75 - 9.6	µg/kg dw
Iodomethane	0/23	0	nd	nd	0.71	0.90 - 2.0	µg/kg dw
Isopropylbenzene	3/24	13	3.9 J	87 J	8.2	0.90 - 39	µg/kg dw
Methyl ethyl ketone	14/32	44	9.60	100	17	4.60 - 28	µg/kg dw
n-Butylbenzene	2/24	8	58	78 J	7.1	0.90 - 39	µg/kg dw
n-Propylbenzene	3/24	13	1.8 J	100 J	8.5	0.90 - 39	µg/kg dw
sec-Butylbenzene	2/24	8	57	57	6.2	0.90 - 39	µg/kg dw
Styrene	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
tert-Butylbenzene	1/24	4	6.1	6.1	1.8	0.90 - 39	µg/kg dw
Tetrachloroethene	0/58	0	nd	nd	0.76	0.41 - 9.6	µg/kg dw
Toluene	7/32	22	1.8	8,300	410	0.90 - 9.6	µg/kg dw
trans-1,2-Dichloroethene	3/32	9	22	1,700 J	85	0.90 - 9.6	µg/kg dw
trans-1,3-Dichloropropene	0/32	0	nd	nd	0.90	0.90 - 9.6	µg/kg dw
trans-1,4-Dichloro-2-butene	0/23	0	nd	nd	3.5	4.60 - 9.9	µg/kg dw
Trichloroethene	4/58	7	3.6 J	23	1.5	0.37 - 9.6	µg/kg dw
Trichlorofluoromethane	0/32	0	nd	nd	1.1	0.90 - 11	µg/kg dw
Vinyl acetate	0/31	0	nd	nd	3.9	4.60 - 28	µg/kg dw
Vinyl chloride	5/32	16	29	60,000	3,400	0.90 - 11	µg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Xylene (ortho)	3/52	6	31	610 J	22	0.90 - 9.6	µg/kg dw
Xylene (meta & para)	3/41	7	74 J	4,700	150	1.1 - 9.6	µg/kg dw
Total Xylenes	3/94	3	105 J	5,300 J	76	0.90 - 11	µg/kg dw
Dioxins/furans							
2,3,7,8-TCDD	22/26	85	0.302	3.36	0.653	0.0440 - 0.454	ng/kg dw
1,2,3,7,8-PeCDD	24/26	92	0.0640 J	10.5	2.07	0.0440 - 0.0471	ng/kg dw
1,2,3,4,7,8-HxCDD	23/26	88	0.171 J	11.2	3.04	0.0440 - 0.106	ng/kg dw
1,2,3,6,7,8-HxCDD	25/26	96	0.103 J	184	28.3	0.0471	ng/kg dw
1,2,3,7,8,9-HxCDD	24/26	92	0.331 J	52.3	11.0	0.0471 - 0.0660	ng/kg dw
1,2,3,4,6,7,8-HpCDD	25/26	96	2.56	5,930	831	0.307	ng/kg dw
OCDD	26/26	100	2.92	62,000	7,400	na	ng/kg dw
2,3,7,8-TCDF	18/26	69	0.0740 J	6.09	1.38	0.0440 - 2.30	ng/kg dw
1,2,3,7,8-PeCDF	23/26	88	0.0930 J	18.1	2.08	0.0440 - 0.0471	ng/kg dw
2,3,4,7,8-PeCDF	25/26	96	0.0670 J	61.8	6.23	0.0471	ng/kg dw
1,2,3,4,7,8-HxCDF	25/26	96	0.176 J	467	36.0	0.0471	ng/kg dw
1,2,3,6,7,8-HxCDF	24/26	92	0.135 J	76.0	7.37	0.0440 - 0.0471	ng/kg dw
1,2,3,7,8,9-HxCDF	16/26	62	0.128 J	8.02	0.684	0.0440 - 3.02	ng/kg dw
2,3,4,6,7,8-HxCDF	24/26	92	0.146 J	28.2	3.86	0.0440 - 0.0471	ng/kg dw
1,2,3,4,6,7,8-HpCDF	25/26	96	0.743 J	2,490	226	0.0471	ng/kg dw
1,2,3,4,7,8,9-HpCDF	24/26	92	0.127 J	299	23.2	0.0471 - 0.0930	ng/kg dw
OCDF	26/26	100	0.0875 J	13,500	1,020	na	ng/kg dw
Dioxin/furan TEQ - Bird	26/26	100	0.1780 J	172.0 J	21.0	na	ng/kg dw
Dioxin/furan TEQ - Fish	26/26	100	0.1290 J	138.0 J	16.9	na	ng/kg dw
Dioxin/furan TEQ - Mammal	26/26	100	0.1470 J	194.0 J	27.2	na	ng/kg dw
Petroleum groups							
Gasoline	0/3	0	nd	nd	12	24 - 25	mg/kg dw
TPH - Gasoline range	0/2	0	nd	nd	10	20	mg/kg dw

Table E.6.2-3, cont. Summary statistics for subsurface sediment data in all depth intervals

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
TPH - Diesel range	6/13	46	19.00	130.0	35	5.00 - 25	mg/kg dw
TPH - Diesel #2 range	0/3	0	nd	nd	31	60 - 63	mg/kg dw
TPH-Non-petroleum hydrocarbon as diesel	0/2	0	nd	nd	50	100	mg/kg dw
TPH-Petroleum hydrocarbon as diesel	1/2	50	110	110	80	100	mg/kg dw
TPH - Lube oil range	0/2	0	nd	nd	50	100	mg/kg dw
TPH - Motor oil range	6/11	55	22.00	230.0	63.5	10.0	mg/kg dw
TPH - Heavy fuel oil range	0/5	0	nd	nd	57	100 - 130	mg/kg dw
TPH - Jet fuel as Jet A	0/2	0	nd	nd	13	25	mg/kg dw
TPH - Jet fuel as JP-4	0/2	0	nd	nd	10	20	mg/kg dw
TPH - Kerosene range	0/2	0	nd	nd	13	25	mg/kg dw
TPH - Mineral spirits range	0/2	0	nd	nd	13	25	mg/kg dw
TPH	13/15	87	26	4,300	680	20	mg/kg dw
Geotechnical							
Liquid limit	76/76	100	0.100	165	62.0	na	% dw
Plastic limit	76/76	100	0.100	73.2	35.7	na	% dw
Plasticity index	76/76	100	0.10	119	26	na	% dw
Bulk density (dry)	108/108	100	31.4	112.5	65	na	pcf
Bulk density (wet)	108/108	100	75.0	134.8	100	na	pcf
Porosity	108/108	100	0.34	0.81	0.61	na	S.U.

Table E.6.2-4. Summary subsurface sediment statistics and comparisons to SMS criteria for chemicals with OC-normalized criteria

Chemical[a]	Detection Frequency[b]		Concentration					SMS Criteria			Comparison to SMS Criteria (Number of Samples)			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	Range of RLs	Unit	SQS	CSL	Unit	Detect > SQS and ≤ CSL	Detect > CSL	Nondetect > SQS and ≤ CSL	Nondetect > CSL
PAHs														
2-Methylnaphthalene	41/243	17	0.13 J	19	2	0.21 - 12	mg/kg OC	38	64	mg/kg OC	0	0	0	0
Acenaphthene	89/261	34	0.11 J	120	4	0.378 - 28	mg/kg OC	16	57	mg/kg OC	9	1	3	0
Acenaphthylene	50/243	21	0.52 J	6.0	1	0.080 - 12	mg/kg OC	66	66	mg/kg OC	0	0	0	0
Anthracene	193/261	74	0.30 J	75	6	0.380 - 28	mg/kg OC	220	1,200	mg/kg OC	0	0	0	0
Benzo(a)anthracene	233/261	89	0.62 J	200	10	0.380 - 26	mg/kg OC	110	270	mg/kg OC	4	0	0	0
Benzo(a)pyrene	228/261	87	0.85 J	200	10	0.380 - 57	mg/kg OC	99	210	mg/kg OC	4	0	0	0
Benzo(g,h,i)perylene	200/256	78	0.641 J	53	6	0.380 - 57	mg/kg OC	31	78	mg/kg OC	5	0	2	0
Benzofluoranthenes (total-calc'd)	236/261	90	1.2 J	410	40	nc	mg/kg OC	230	450	mg/kg OC	4	0	0	0
Chrysene	237/261	91	0.62 J	340	20	0.380 - 26	mg/kg OC	110	460	mg/kg OC	5	0	0	0
Dibenzo(a,h)anthracene	116/261	44	0.23 J	38 J	3	0.378 - 9.5	mg/kg OC	12	33	mg/kg OC	20	1	0	0
Dibenzofuran	56/261	21	0.13 J	100	3	0.23 - 28	mg/kg OC	15	58	mg/kg OC	6	1	4	0
Fluoranthene	247/261	95	0.83 J	580	41	0.50 - 52	mg/kg OC	160	1,200	mg/kg OC	14	0	0	0
Fluorene	100/261	38	0.18 J	160	4	0.31 - 28	mg/kg OC	23	79	mg/kg OC	4	1	2	0
Indeno(1,2,3-cd)pyrene	203/256	79	0.513 J	58	7	0.380 - 12	mg/kg OC	34	88	mg/kg OC	5	0	0	0
Naphthalene	65/243	27	0.098 J	87	3	0.23 - 12	mg/kg OC	99	170	mg/kg OC	0	0	0	0
Phenanthrene	235/261	90	0.62 J	330	16	0.50 - 28	mg/kg OC	100	480	mg/kg OC	5	0	0	0
Pyrene	250/261	96	1.0 J	520	42	0.50 - 26	mg/kg OC	1,000	1,400	mg/kg OC	0	0	0	0
Total HPAH (calc'd)	251/261	96	1.9 J	2,100	180	nc	mg/kg OC	960	5,300	mg/kg OC	6	0	0	0
Total LPAH (calc'd)	235/261	90	0.62 J	650	29	nc	mg/kg OC	370	780	mg/kg OC	3	0	0	0
Phthalates														
Bis(2-ethylhexyl)phthalate	196/263	75	0.95 J	200	20	0.51 - 140	mg/kg OC	47	78	mg/kg OC	22	16	6	5
Butyl benzyl phthalate	143/245	58	0.33	26	2	0.20 - 18	mg/kg OC	4.9	64	mg/kg OC	14	0	5	0
Diethyl phthalate	1/263	<1	410	410	3	0.20 - 28	mg/kg OC	61	110	mg/kg OC	0	1	0	0
Dimethyl phthalate	20/245	8	0.14 J	340	3	0.11 - 14	mg/kg OC	53	53	mg/kg OC	0	1	0	0
Di-n-butyl phthalate	50/245	20	0.51 J	16	2	0.53 - 14	mg/kg OC	220	1,700	mg/kg OC	0	0	0	0
Di-n-octyl phthalate	13/263	5	0.99 J	140	4	0.071 - 140	mg/kg OC	58	4,500	mg/kg OC	1	0	5	0
Other SVOCs														
1,2,4-Trichlorobenzene	25/242	10	0.13 J	2.1	0.3	0.087 - 5.5	mg/kg OC	0.81	1.8	mg/kg OC	2	1	48	6
1,2-Dichlorobenzene	29/241	12	0.13 J	9.9	0.4	0.054 - 5.5	mg/kg OC	2.3	2.3	mg/kg OC	0	3	0	5
1,4-Dichlorobenzene	52/241	22	0.12 J	2.0	0.3	0.054 - 5.5	mg/kg OC	3.1	9	mg/kg OC	0	0	2	0

Table E.6.2-4, cont. Summary subsurface sediment statistics and comparisons to SMS criteria for chemicals with OC-normalized criteria

Chemical[a]	Detection Frequency[b]		Concentration					SMS Criteria			Comparison to SMS Criteria (Number of Samples)			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	Range of RLs	Unit	SQS	CSL	Unit	Detect > SQS and ≤ CSL	Detect > CSL	Nondetect > SQS and ≤ CSL	Nondetect > CSL
Hexachlorobenzene	3/242	1	0.23 J	0.70	0.3	0.032 - 5.5	mg/kg OC	0.38	2.3	mg/kg OC	1	0	122	5
Hexachlorobutadiene	1/243	<1	0.30 J	0.30 J	0.3	0.032 - 11	mg/kg OC	3.9	6.2	mg/kg OC	0	0	1	2
N-Nitrosodiphenylamine	0/243	0	nd	nd	2	0.13 - 80	mg/kg OC	11	11	mg/kg OC	0	0	0	13
Polychlorinated biphenyls														
PCBs (total calc'd)	553/645	86	0.092 J	29,000	100	nc	mg/kg OC	12	65	mg/kg OC	192	162	2	0

a Data for chemicals with dry weight SMS criteria are presented in Table E.6.2-1.

b Subsurface sediment sample samples were not included if the TOC content was < 0.5% or > 4.0%.

Table E.6.2-5. Summary subsurface sediment statistics and comparisons to SMS criteria expressed in dry weight units

Chemical	Detection Frequency		Concentration					Criteria			Comparison to Criteria (Number of Samples)			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	SQS/LAET	CSL/2LAET	Criteria Unit	Detect > SQS/LAET and ≤ CSL/2LAET	Detect > CSL/2LAET	Nondetect > SQS/LAET and ≤ CSL/2LAET	Nondetect > CSL/2LAET
Metals and trace elements														
Arsenic	267/325	82	3.9	2,000	40	3.0 - 10.0	mg/kg dw	57	93	mg/kg dw	6	19	0	0
Cadmium	257/388	66	0.0880	20.4	1	0.18 - 0.9	mg/kg dw	5.1	6.7	mg/kg dw	1	8	0	0
Chromium	397/397	100	6.67	386	40	na	mg/kg dw	260	270	mg/kg dw	0	2	0	0
Copper	397/397	100	7.1	2,940	80	na	mg/kg dw	390	390	mg/kg dw	0	10	0	0
Lead	361/394	92	2.8	3,520 J	80	2 - 3.6	mg/kg dw	450	530	mg/kg dw	3	10	0	0
Mercury	341/436	78	0.020	10	0.2	0.020 - 0.100	mg/kg dw	0.41	0.59	mg/kg dw	22	31	0	0
Silver	166/372	45	0.050	7.5	0.7	0.30 - 1	mg/kg dw	6.1	6.1	mg/kg dw	0	2	0	0
Zinc	396/396	100	16.2 J	4,720	200	na	mg/kg dw	410	960	mg/kg dw	15	15	0	0
PAHs														
2-Methylnaphthalene	43/281	15	2.9 J	4,500	40	1.6 - 400	µg/kg dw	670	1,400	µg/kg dw	0	1	0	0
Acenaphthene	94/304	31	1.3 J	4,600	80	4.30 - 400	µg/kg dw	500	730	µg/kg dw	9	2	3	0
Acenaphthylene	53/281	19	10 J	280	20	1.9 - 400	µg/kg dw	1,300	1,300	µg/kg dw	0	0	0	0
Anthracene	200/304	66	4.3 J	1,900	100	4.30 - 400	µg/kg dw	960	4,400	µg/kg dw	1	0	0	0
Benzo(a)anthracene	243/304	80	12 J	4,500	300	4.30 - 180	µg/kg dw	1,300	1,600	µg/kg dw	5	1	0	0
Benzo(a)pyrene	237/304	78	11 J	5,300	300	4.30 - 400	µg/kg dw	1,600	3,000	µg/kg dw	4	1	0	0
Benzo(g,h,i)perylene	207/298	69	11 J	1,000	100	4.30 - 400	µg/kg dw	670	720	µg/kg dw	5	0	2	0
Benzofluoranthenes (total-calc'd)	248/304	82	21 J	10,200	700	nc	µg/kg dw	3,200	3,600	µg/kg dw	4	1	0	0
Chrysene	247/304	81	12 J	7,200	400	4.30 - 180	µg/kg dw	1,400	2,800	µg/kg dw	6	1	0	0
Dibenzo(a,h)anthracene	119/304	39	3.2 J	660 J	60	4.30 - 910	µg/kg dw	230	540	µg/kg dw	20	1	1	5
Dibenzofuran	58/304	19	2.9 J	1,700	50	1.7 - 400	µg/kg dw	540	700	µg/kg dw	6	2	4	0
Fluoranthene	262/304	86	12 J	13,000	800	4.30 - 340	µg/kg dw	1,700	2,500	µg/kg dw	14	2	0	0
Fluorene	104/304	34	4.9 J	4,300	80	2.3 - 400	µg/kg dw	540	1,000	µg/kg dw	4	2	2	0
Indeno(1,2,3-cd)pyrene	212/298	71	10 J	1,500	100	4.30 - 400	µg/kg dw	600	690	µg/kg dw	7	0	0	0
Naphthalene	70/293	24	1.9 J	3,400	50	1.7 - 400	µg/kg dw	2,100	2,400	µg/kg dw	0	1	0	0
Phenanthrene	244/304	80	10 J	13,000	300	4.30 - 400	µg/kg dw	1,500	5,400	µg/kg dw	5	1	0	0
Pyrene	266/304	88	9.9 J	10,000	800	4.30 - 170	µg/kg dw	2,600	3,300	µg/kg dw	0	2	0	0
Total HPAH (calc'd)	268/304	88	9.9 J	47,000	3,000	nc	µg/kg dw	12,000	17,000	µg/kg dw	6	2	0	0
Total LPAH (calc'd)	244/304	80	12.00	27,000 J	600	nc	µg/kg dw	5,200	13,000	µg/kg dw	3	1	0	0

Table E.6.2-5, cont. Summary subsurface sediment statistics and comparisons to SMS criteria for chemicals with dry weight criteria

Chemical	Detection Frequency		Concentration					Criteria			Comparison to Criteria (Number of Samples)			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	SQS/LAET	CSL/2LAET	Criteria Unit	Detect > SQS/LAET and ≤ CSL/2LAET	Detect > CSL/2LAET	Nondetect > SQS/LAET and ≤ CSL/2LAET	Nondetect > CSL/2LAET
Phthalates														
Bis(2-ethylhexyl)phthalate	216/306	71	12 J	5,100	500	19 - 2,400	µg/kg dw	1,300	1,900	µg/kg dw	25	17	6	5
Butyl benzyl phthalate	147/283	52	5.6 J	610	30	5.8 - 400	µg/kg dw	63	900	µg/kg dw	16	0	7	0
Diethyl phthalate	1/306	<1	2,700	2,700	40	4.6 - 400	µg/kg dw	200	1,200	µg/kg dw	0	1	1	0
Dimethyl phthalate	20/283	7	4.2 J	8,800	60	2.4 - 400	µg/kg dw	71	160	µg/kg dw	0	1	2	2
Di-n-butyl phthalate	60/283	21	6.5 J	280	30	10 - 400	µg/kg dw	1,400	5,100	µg/kg dw	0	0	0	0
Di-n-octyl phthalate	14/306	5	14 J	2,000	70	1.6 - 1,600	µg/kg dw	6,200	nv	µg/kg dw	1	na	5	na
Other SVOCs														
1,2,4-Trichlorobenzene	27/293	9	3.6 J	110 J	7	0.87 - 400	µg/kg dw	31	51	µg/kg dw	2	2	48	8
1,2-Dichlorobenzene	31/292	11	0.98 J	160	7	0.78 - 400	µg/kg dw	35	50	µg/kg dw	0	3	1	7
1,4-Dichlorobenzene	56/292	19	2.1 J	750 J	9	0.86 - 400	µg/kg dw	110	120	µg/kg dw	0	1	2	2
2,4-Dimethylphenol	21/281	7	3.7 J	46	10	5.8 - 790	µg/kg dw	29	29	µg/kg dw	0	1	0	16
2-Methylphenol	29/281	10	3.0 J	160	9	4.5 - 400	µg/kg dw	63	63	µg/kg dw	0	1	0	4
4-Methylphenol	15/304	5	8.6 J	110 J	30	3.8 - 400	µg/kg dw	670	670	µg/kg dw	0	0	0	0
Benzoic acid	122/304	40	35 J	3,000 J	200	58 - 4,000	µg/kg dw	650	650	µg/kg dw	0	13	0	16
Benzyl alcohol	32/281	11	7.7 J	210	30	4.9 - 2,000	µg/kg dw	57	73	µg/kg dw	2	5	14	11
Hexachlorobenzene	3/280	1	4.6 J	10	6	0.78 - 400	µg/kg dw	22	70	µg/kg dw	1	0	123	7
Hexachlorobutadiene	2/293	1	5.9 J	13	8	0.96 - 790	µg/kg dw	11	120	µg/kg dw	1	0	8	4
Hexachloroethane	0/277	0	nd	nd	20	2.9 - 790	µg/kg dw	1,400	14,000	µg/kg dw	0	0	0	0
N-Nitrosodiphenylamine	1/281	<1	33	33	50	2.9 - 7,300	µg/kg dw	28	40	µg/kg dw	1	0	5	19
Pentachlorophenol	54/304	18	16 J	930 J	130	12 - 3,100	µg/kg dw	360	690	µg/kg dw	1	4	2	23
Phenol	57/304	19	12 J	3,100	50	4.4 - 790	µg/kg dw	420	1,200	µg/kg dw	1	1	1	0
Polychlorinated biphenyls														
PCBs (total calc'd)	609/821	74	0.52 J	890,000	3,000	nc	µg/kg dw	130	1,000	µg/kg dw	211	174	3	0

E.6.3 Tissue

Table E.6.3-1. Summary statistics for amphipod, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	3/4	75	0.024	0.069	0.033	0.023	mg/kg ww
Arsenic	4/4	100	0.96	1.5	1.2	na	mg/kg ww
Cadmium	4/4	100	0.017	0.15	0.058	na	mg/kg ww
Chromium	4/4	100	0.45 J	0.56 J	0.52	na	mg/kg ww
Copper	4/4	100	9.8	30	19	na	mg/kg ww
Lead	4/4	100	0.95	7.4	3.7	na	mg/kg ww
Mercury	4/4	100	0.0067	0.017	0.011	na	mg/kg ww
Nickel	4/4	100	0.48	0.77 J	0.60	na	mg/kg ww
Silver	4/4	100	0.060 J	0.099	0.080	na	mg/kg ww
Thallium	0/2	0	nd	nd	0.011	0.020 – 0.023	mg/kg ww
Zinc	4/4	100	7.9	26	14	na	mg/kg ww
Organometals							
Monobutyltin as ion	2/2	100	2.8 J	10 J	6.4	na	µg/kg ww
Dibutyltin as ion	2/2	100	2.1 J	2.8 J	2.5	na	µg/kg ww
Tributyltin as ion	4/4	100	18	36	29	na	µg/kg ww
Tetrabutyltin as ion	0/2	0	nd	nd	0.20	0.40	µg/kg ww
PAHs							
2-Chloronaphthalene	0/4	0	nd	nd	12	24	µg/kg ww
2-Methylnaphthalene	0/4	0	nd	nd	32	64	µg/kg ww
Acenaphthene	0/4	0	nd	nd	8.0	16	µg/kg ww
Acenaphthylene	0/4	0	nd	nd	12	24	µg/kg ww
Anthracene	0/4	0	nd	nd	12	24	µg/kg ww
Benzo(a)anthracene	0/4	0	nd	nd	12	24	µg/kg ww
Benzo(a)pyrene	0/4	0	nd	nd	20	40	µg/kg ww
Benzo(b)fluoranthene	0/4	0	nd	nd	32	64	µg/kg ww
Benzo(g,h,i)perylene	0/4	0	nd	nd	20	40	µg/kg ww
Benzo(k)fluoranthene	0/4	0	nd	nd	32	64	µg/kg ww
Total benzofluoranthenes	0/4	0	nd	nd	32	nc	µg/kg ww

Table E.6.3-1, cont. Summary statistics for amphipod, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Chrysene	0/4	0	nd	nd	12	24	µg/kg ww
Dibenzo(a,h)anthracene	0/4	0	nd	nd	32	64	µg/kg ww
Dibenzofuran	0/4	0	nd	nd	20	40	µg/kg ww
Fluoranthene	1/4	25	84	84	30	24	µg/kg ww
Fluorene	0/4	0	nd	nd	12	24	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/4	0	nd	nd	20	40	µg/kg ww
Naphthalene	0/4	0	nd	nd	32	64	µg/kg ww
Phenanthrene	0/4	0	nd	nd	12	24	µg/kg ww
Pyrene	1/4	25	160	160	49	24	µg/kg ww
Total HPAH	1/4	25	240	240	84	nc	µg/kg ww
Total LPAH	0/4	0	nd	nd	32	nc	µg/kg ww
Carcinogenic PAHs – Mammal	0/4	0	nd	nd	22	43	µg/kg ww
Total PAH	1/4	25	240	240	84	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	2/4	50	170	530	180	24	µg/kg ww
Butyl benzyl phthalate	0/2	0	nd	nd	12	24	µg/kg ww
Diethyl phthalate	0/4	0	nd	nd	20	40	µg/kg ww
Dimethyl phthalate	0/4	0	nd	nd	8.0	16	µg/kg ww
Di-n-butyl phthalate	0/4	0	nd	nd	20	40	µg/kg ww
Di-n-octyl phthalate	0/4	0	nd	nd	12	24	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/4	0	nd	nd	12	24	µg/kg ww
1,2-Dichlorobenzene	0/4	0	nd	nd	12	24	µg/kg ww
1,2-Diphenylhydrazine	0/4	0	nd	nd	40	80	µg/kg ww
1,3-Dichlorobenzene	0/4	0	nd	nd	12	24	µg/kg ww
1,4-Dichlorobenzene	0/4	0	nd	nd	12	24	µg/kg ww
2,4,5-Trichlorophenol	0/4	0	nd	nd	80	160	µg/kg ww
2,4,6-Trichlorophenol	0/4	0	nd	nd	80	160	µg/kg ww
2,4-Dichlorophenol	0/4	0	nd	nd	20	40	µg/kg ww
2,4-Dimethylphenol	0/4	0	nd	nd	20	40	µg/kg ww
2,4-Dinitrophenol	0/4	0	nd	nd	40	80	µg/kg ww
2,4-Dinitrotoluene	0/4	0	nd	nd	8.0	16	µg/kg ww

Table E.6.3-1, cont. Summary statistics for amphipod, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2,6-Dinitrotoluene	0/4	0	nd	nd	8.0	16	µg/kg ww
2-Chlorophenol	0/4	0	nd	nd	40	80	µg/kg ww
2-Methylphenol	0/4	0	nd	nd	20	40	µg/kg ww
2-Nitroaniline	0/4	0	nd	nd	80	160	µg/kg ww
2-Nitrophenol	0/4	0	nd	nd	20	40	µg/kg ww
3,3'-Dichlorobenzidine	0/4	0	nd	nd	20	40	µg/kg ww
3-Nitroaniline	0/4	0	nd	nd	80	160	µg/kg ww
4,6-Dinitro-o-cresol	0/4	0	nd	nd	40	80	µg/kg ww
4-Bromophenyl phenyl ether	0/4	0	nd	nd	8.0	16	µg/kg ww
4-Chloro-3-methylphenol	0/2	0	nd	nd	40	80	µg/kg ww
4-Chloroaniline	0/4	0	nd	nd	40	80	µg/kg ww
4-Chlorophenyl phenyl ether	0/4	0	nd	nd	12	24	µg/kg ww
4-Methylphenol	0/4	0	nd	nd	20	40	µg/kg ww
4-Nitroaniline	0/4	0	nd	nd	80	160	µg/kg ww
4-Nitrophenol	0/2	0	nd	nd	40	80	µg/kg ww
Aniline	0/2	0	nd	nd	40	80	µg/kg ww
Benzoic acid	0/4	0	nd	nd	80	160	µg/kg ww
Benzyl alcohol	0/4	0	nd	nd	20	40	µg/kg ww
bis(2-chloroethoxy)methane	0/4	0	nd	nd	20	40	µg/kg ww
bis(2-chloroethyl)ether	0/4	0	nd	nd	12	24	µg/kg ww
bis(2-chloroisopropyl)ether	0/4	0	nd	nd	40	80	µg/kg ww
Caffeine	0/4	0	nd	nd	4.0	8.0	µg/kg ww
Carbazole	0/4	0	nd	nd	20	40	µg/kg ww
Coprostanol	0/4	0	nd	nd	80	160	µg/kg ww
Hexachlorobenzene	0/4	0	nd	nd	12	24	µg/kg ww
Hexachlorobutadiene	0/4	0	nd	nd	20	40	µg/kg ww
Hexachloroethane	0/4	0	nd	nd	20	40	µg/kg ww
Isophorone	0/4	0	nd	nd	20	40	µg/kg ww
Nitrobenzene	0/4	0	nd	nd	20	40	µg/kg ww
N-Nitrosodimethylamine	0/4	0	nd	nd	80	160	µg/kg ww
N-Nitroso-di-n-propylamine	0/2	0	nd	nd	20	40	µg/kg ww
N-Nitrosodiphenylamine	0/4	0	nd	nd	20	40	µg/kg ww

Table E.6.3-1, cont. Summary statistics for amphipod, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Pentachlorophenol	0/4	0	nd	nd	20	40	µg/kg ww
Phenol	2/4	50	1,400	2,200	940	160	µg/kg ww
Polychlorinated biphenyls							
Aroclor-1016	0/4	0	nd	nd	4.0	8.0	µg/kg ww
Aroclor-1221	0/4	0	nd	nd	4.0	8.0	µg/kg ww
Aroclor-1232	0/4	0	nd	nd	4.0	8.0	µg/kg ww
Aroclor-1242	0/4	0	nd	nd	4.0	8.0	µg/kg ww
Aroclor-1248	4/4	100	23	29	27	na	µg/kg ww
Aroclor-1254	4/4	100	36	300	130	na	µg/kg ww
Aroclor-1260	4/4	100	43	120	76	na	µg/kg ww
Total PCBs	4/4	100	106	410	230	nc	µg/kg ww
Conventional parameters							
Total solids	2/2	100	18	18	18	na	% ww
Lipid	4/4	100	0.66	5.3	3.0	na	% ww

Table E.6.3-2. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	20/20	100	0.0013 J	0.172	0.02	na	mg/kg ww
Arsenic	20/20	100	0.573	17.40	2.34	na	mg/kg ww
Cadmium	20/20	100	0.0175 J	0.202 J	0.060	na	mg/kg ww
Chromium	20/20	100	0.08	3.90	1	na	mg/kg ww
Cobalt	20/20	100	0.0514 J	0.5520 J	0.216	na	mg/kg ww
Copper	20/20	100	1.940 J	21.8	8.52	na	mg/kg ww
Lead	20/20	100	0.1430	14.60	1.77	na	mg/kg ww
Mercury	18/20	90	0.002 J	0.044	0.01	0.004 – 0.009	mg/kg ww
Molybdenum	20/20	100	0.0563	0.4330	0.154	na	mg/kg ww
Nickel	20/20	100	0.094	2.950	0.68	na	mg/kg ww
Selenium	20/20	100	0.055	0.603	0.22	na	mg/kg ww
Silver	20/20	100	0.0126 J	0.1650 J	0.051	na	mg/kg ww
Thallium	20/20	100	0.0006 J	0.0068	0.003	na	mg/kg ww
Vanadium	20/20	100	0.26	3.04	1.2	na	mg/kg ww
Zinc	20/20	100	8.22	43.6	20.9	na	mg/kg ww
Organometals							
Monobutyltin as ion	9/20	45	2.4 J	30	5.3	4.6 – 9.4	µg/kg ww
Dibutyltin as ion	15/20	75	2.2 J	24	8.5	4.8 – 5.0	µg/kg ww
Tributyltin as ion	19/20	95	3.8 J	92	28	5.0	µg/kg ww
Tetrabutyltin as ion	0/20	0	nd	nd	2.8	1.6 – 11	µg/kg ww
Alkylated PAHs							
C1-Chrysenes	5/20	25	36	240	37	25 – 50	µg/kg ww
C1-Dibenzothiophenes	1/20	5	46	46	16	25 – 50	µg/kg ww
C1-Fluoranthene/pyrene	12/20	60	39	560	88	25 – 46	µg/kg ww
C1-Fluorenes	2/20	10	34	39	17	25 – 50	µg/kg ww
C1-Phenanthrenes/anthracenes	7/20	35	26	140	42	25 – 50	µg/kg ww
C2-Chrysenes	1/20	5	140	140	21	25 – 50	µg/kg ww
C2-Dibenzothiophenes	1/20	5	36	36	15	25 – 50	µg/kg ww
C2-Fluorenes	4/20	20	36	84	24	25 – 50	µg/kg ww
C2-Naphthalenes	1/20	5	68	68	17	25 – 50	µg/kg ww
C2-Phenanthrenes/anthracenes	6/20	30	28	110	34	25 – 50	µg/kg ww
C3-Chrysenes	0/20	0	nd	nd	14	25 – 50	µg/kg ww
C3-Dibenzothiophenes	0/20	0	nd	nd	14	25 – 50	µg/kg ww
C3-Fluorenes	4/20	20	37	92	23	25 – 50	µg/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
C3-Naphthalenes	1/20	5	120	120	20	25 – 50	µg/kg ww
C3-Phenanthrenes/anthracenes	7/20	35	35	71	28	25 – 50	µg/kg ww
C4-Chrysenes	0/20	0	nd	nd	14	25 – 50	µg/kg ww
C4-Naphthalenes	1/20	5	110	110	19	25 – 50	µg/kg ww
C4-Phenanthrenes/anthracenes	4/20	20	29	55	20	25 – 50	µg/kg ww
PAHs							
1-Methylnaphthalene	19/20	95	0.75 J	5.0 J	3.1	50	µg/kg ww
2-Chloronaphthalene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
2-Methylnaphthalene	20/20	100	1.0 J	5.6 J	2.3	na	µg/kg ww
Acenaphthene	20/20	100	0.61 J	35	7.0	na	µg/kg ww
Acenaphthylene	19/20	95	0.40 J	12 J	3.1	25	µg/kg ww
Anthracene	20/20	100	1.0 J	110	17	na	µg/kg ww
Benzo(a)anthracene	20/20	100	0.93 J	270	44	na	µg/kg ww
Benzo(a)pyrene	17/20	85	2.0 J	190	28	25	µg/kg ww
Benzo(b)fluoranthene	20/20	100	1.5 J	290	40	na	µg/kg ww
Benzo(e)pyrene	20/20	100	3.8 J	250	37	na	µg/kg ww
Benzo(g,h,i)perylene	20/20	100	1.1 J	88	15	na	µg/kg ww
Benzo(k)fluoranthene	20/20	100	1.6 J	220	30	na	µg/kg ww
Total benzofluoranthenes	20/20	100	3.4 J	510	70	na	µg/kg ww
Chrysene	20/20	100	8.2 J	780	88	na	µg/kg ww
Dibenzo(a,h)anthracene	15/20	75	0.61 J	25 J	6.7	25	µg/kg ww
Dibenzofuran	19/20	95	0.72 J	32	5.9	25	µg/kg ww
Fluoranthene	20/20	100	10 J	680	140	na	µg/kg ww
Fluorene	20/20	100	0.83 J	57	9.7	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	19/20	95	0.80 J	87	15	25	µg/kg ww
Naphthalene	20/20	100	3.4 J	7.3 J	5.8	na	µg/kg ww
Perylene	13/20	65	3.2 J	69	18	25	µg/kg ww
Phenanthrene	20/20	100	3.7 J	320	51	na	µg/kg ww
Pyrene	20/20	100	11 J	570	140	na	µg/kg ww
Total HPAH	20/20	100	36 J	3,200 J	540	na	µg/kg ww
Total LPAH	20/20	100	12.4 J	450 J	93	na	µg/kg ww
Carcinogenic PAHs – Mammal	20/20	100	4.2 J	290 J	44	na	µg/kg ww
Total PAH	20/20	100	48 J	3,630 J	640	na	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	5/20	25	1,100 J	2,200 J	1,400	2,500	µg/kg ww
Butyl benzyl phthalate	1/20	5	190 J	190 J	120	200 – 400	µg/kg ww
Diethyl phthalate	0/20	0	nd	nd	230	390 – 790	µg/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dimethyl phthalate	0/20	0	nd	nd	110	200 – 400	µg/kg ww
Di-n-butyl phthalate	0/20	0	nd	nd	110	200 – 400	µg/kg ww
Di-n-octyl phthalate	0/20	0	nd	nd	110	200 – 400	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
1,2-Dichlorobenzene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
1,3-Dichlorobenzene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
1,4-Dichlorobenzene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
2,4,5-Trichlorophenol	1/20	5	75 J	75 J	220	390 – 790	µg/kg ww
2,4,6-Trichlorophenol	1/20	5	47 J	47 J	220	390 – 790	µg/kg ww
2,4-Dichlorophenol	0/20	0	nd	nd	230	390 – 790	µg/kg ww
2,4-Dimethylphenol	1/20	5	71 J	71 J	220	390 – 790	µg/kg ww
2,4-Dinitrophenol	0/20	0	nd	nd	2,300	3,900 – 7,900	µg/kg ww
2,4-Dinitrotoluene	0/20	0	nd	nd	230	390 – 790	µg/kg ww
2,6-Dinitrotoluene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
2-Chlorophenol	0/20	0	nd	nd	230	390 – 790	µg/kg ww
2-Methylphenol	0/20	0	nd	nd	230	390 – 790	µg/kg ww
2-Nitroaniline	0/20	0	nd	nd	570	970 – 2,000	µg/kg ww
2-Nitrophenol	0/20	0	nd	nd	110	200 – 400	µg/kg ww
3,3'-Dichlorobenzidine	0/20	0	nd	nd	5,700	9,700 – 20,000	µg/kg ww
3-Nitroaniline	0/20	0	nd	nd	1,100	2,000 – 4,000	µg/kg ww
4,6-Dinitro-o-cresol	0/20	0	nd	nd	1,100	2,000 – 4,000	µg/kg ww
4-Bromophenyl phenyl ether	0/20	0	nd	nd	110	200 – 400	µg/kg ww
4-Chloro-3-methylphenol	0/20	0	nd	nd	570	970 – 2,000	µg/kg ww
4-Chloroaniline	1/20	5	53 J	53 J	550	970 – 2,000	µg/kg ww
4-Chlorophenyl phenyl ether	0/20	0	nd	nd	110	200 – 400	µg/kg ww
4-Methylphenol	6/20	30	77 J	44,000	2,400	400 – 790	µg/kg ww
4-Nitroaniline	0/20	0	nd	nd	570	970 – 2,000	µg/kg ww
4-Nitrophenol	2/20	10	280 J	2,300 J	1,100	2,000 – 4,000	µg/kg ww
Aniline	0/20	0	nd	nd	2,300	3,900 – 7,900	µg/kg ww
Benzidine	0/20	0	nd	nd	14,000	25,000 – 50,000	µg/kg ww
Benzoic acid	19/20	95	990 J	14,000	3,700	4,000	µg/kg ww
Benzyl alcohol	8/20	40	57 J	1,100	160	200 – 400	µg/kg ww
Biphenyl	20/20	100	1.4 J	5.3 J	2.6	na	µg/kg ww
bis(2-chloroethoxy)methane	0/20	0	nd	nd	110	200 – 400	µg/kg ww
bis(2-chloroethyl)ether	0/20	0	nd	nd	110	200 – 400	µg/kg ww
bis(2-chloroisopropyl)ether	0/20	0	nd	nd	110	200 – 400	µg/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Carbazole	0/20	0	nd	nd	570	970 – 2,000	µg/kg ww
Dibenzothiophene	15/20	75	0.69 J	26	9.0	25 – 50	µg/kg ww
Hexachlorobenzene	0/20	0	nd	nd	5.4	9.7 – 18	µg/kg ww
Hexachlorobutadiene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
Hexachlorocyclopentadiene	0/20	0	nd	nd	14,000	25,000 – 50,000	µg/kg ww
Hexachloroethane	0/20	0	nd	nd	110	200 – 400	µg/kg ww
Isophorone	0/20	0	nd	nd	110	200 – 400	µg/kg ww
Nitrobenzene	0/20	0	nd	nd	110	200 – 400	µg/kg ww
N-Nitrosodimethylamine	0/20	0	nd	nd	110	200 – 400	µg/kg ww
N-Nitroso-di-n-propylamine	1/20	5	3,700	3,700	350	200 – 2,300	µg/kg ww
N-Nitrosodiphenylamine	1/20	5	170 J	170 J	120	200 – 400	µg/kg ww
Pentachlorophenol	5/20	25	1,100 J	4,700	1,400	2,000 – 4,000	µg/kg ww
Phenol	9/20	45	91 J	580	250	99 – 990	µg/kg ww
Polychlorinated biphenyls							
PCB-001	7/8	88	1.30 J	45.0	8.93	0.382	ng/kg ww
PCB-002	4/8	50	1.45 J	2.51 J	1.15	0.259 – 1.06	ng/kg ww
PCB-003	4/8	50	3.39 J	15.1	3.84	0.442 – 1.75	ng/kg ww
PCB-004	8/8	100	8.72	275	74.2	na	ng/kg ww
PCB-005	8/8	100	0.201 J	12.8	3.10	na	ng/kg ww
PCB-006	8/8	100	7.28	233	70.7	na	ng/kg ww
PCB-007	8/8	100	0.753 J	44.8	12.0	na	ng/kg ww
PCB-008	8/8	100	16.5	1,040	288	na	ng/kg ww
PCB-009	8/8	100	1.09 J	46.6	12.8	na	ng/kg ww
PCB-010	8/8	100	0.632 J	20.5	5.19	na	ng/kg ww
PCB-011	7/8	88	9.66	35.2	16.8	4.45	ng/kg ww
PCB-012	8/8	100	4.05 CJ	97.8 C	31.5	na	ng/kg ww
PCB-013	8/8	100	C12	C12	nc	na	ng/kg ww
PCB-014	1/8	12	0.226 J	0.226 J	0.188	0.128 – 0.662	ng/kg ww
PCB-015	8/8	100	22.7	798	229	na	ng/kg ww
PCB-016	8/8	100	28.8	1,380	338	na	ng/kg ww
PCB-017	8/8	100	71.0	2,780	633	na	ng/kg ww
PCB-018	8/8	100	130 C	3,520 C	926	na	ng/kg ww
PCB-019	8/8	100	15.4	386	112	na	ng/kg ww
PCB-020	8/8	100	358 C	14,800 C	3,490	na	ng/kg ww
PCB-021	8/8	100	58.9 C	3,580 C	944	na	ng/kg ww
PCB-022	8/8	100	71.5	2,940	749	na	ng/kg ww
PCB-023	8/8	100	0.243 J	4.74 J	1.56	na	ng/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-024	8/8	100	1.73 J	39.2	11.9	na	ng/kg ww
PCB-025	8/8	100	65.8	910	331	na	ng/kg ww
PCB-026	8/8	100	172 C	2,410 C	766	na	ng/kg ww
PCB-027	8/8	100	29.3	381	122	na	ng/kg ww
PCB-028	8/8	100	C20	C20	nc	na	ng/kg ww
PCB-029	8/8	100	C26	C26	nc	na	ng/kg ww
PCB-030	8/8	100	C18	C18	nc	na	ng/kg ww
PCB-031	8/8	100	261	12,400	2,720	na	ng/kg ww
PCB-032	8/8	100	58.6	2,400	601	na	ng/kg ww
PCB-033	8/8	100	C21	C21	nc	na	ng/kg ww
PCB-034	8/8	100	2.30 J	72.9	16.8	na	ng/kg ww
PCB-035	8/8	100	1.95 J	112	35.2	na	ng/kg ww
PCB-036	3/8	38	0.320 J	1.08 J	0.402	0.268 – 0.424	ng/kg ww
PCB-037	8/8	100	58.2	2,370	658	na	ng/kg ww
PCB-038	8/8	100	0.775 J	28.1	8.00	na	ng/kg ww
PCB-039	8/8	100	2.50 J	142	31.7	na	ng/kg ww
PCB-040	8/8	100	174 C	11,900 C	2,600	na	ng/kg ww
PCB-041	8/8	100	C40	C40	nc	na	ng/kg ww
PCB-042	8/8	100	98.0	5,470	1,400	na	ng/kg ww
PCB-043	8/8	100	19.0	779	195	na	ng/kg ww
PCB-044	8/8	100	634 C	22,800 C	5,820	na	ng/kg ww
PCB-045	8/8	100	74.7 C	2,750 C	689	na	ng/kg ww
PCB-046	8/8	100	13.2	592	164	na	ng/kg ww
PCB-047	8/8	100	C44	C44	nc	na	ng/kg ww
PCB-048	8/8	100	70.2	3,870	894	na	ng/kg ww
PCB-049	8/8	100	556 C	19,100 C	5,160	na	ng/kg ww
PCB-050	8/8	100	111 C	2,460 C	657	na	ng/kg ww
PCB-051	8/8	100	C45	C45	nc	na	ng/kg ww
PCB-052	8/8	100	1,350	30,400	8,900	na	ng/kg ww
PCB-053	8/8	100	C50	C50	nc	na	ng/kg ww
PCB-054	8/8	100	1.47 J	27.9	9.00	na	ng/kg ww
PCB-055	8/8	100	4.30	195	77.5	na	ng/kg ww
PCB-056	8/8	100	178	9,420	2,350	na	ng/kg ww
PCB-057	8/8	100	9.96	135	52.7	na	ng/kg ww
PCB-058	8/8	100	4.80	101	33.7	na	ng/kg ww
PCB-059	8/8	100	60.3 C	2,070 C	567	na	ng/kg ww
PCB-060	8/8	100	95.4	3,510	1,070	na	ng/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-061	8/8	100	938 C	38,500 C	10,200	na	ng/kg ww
PCB-062	8/8	100	C59	C59	nc	na	ng/kg ww
PCB-063	8/8	100	30.4	1,020	278	na	ng/kg ww
PCB-064	8/8	100	217	10,600	2,380	na	ng/kg ww
PCB-065	8/8	100	C44	C44	nc	na	ng/kg ww
PCB-066	8/8	100	585	26,500	6,920	na	ng/kg ww
PCB-067	8/8	100	16.8	547	196	na	ng/kg ww
PCB-068	8/8	100	13.2	171	72.7	na	ng/kg ww
PCB-069	8/8	100	C49	C49	nc	na	ng/kg ww
PCB-070	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-071	8/8	100	C40	C40	nc	na	ng/kg ww
PCB-072	8/8	100	23.9	345	129	na	ng/kg ww
PCB-073	0/8	0	nd	nd	0.0578	0.0237 – 0.278	ng/kg ww
PCB-074	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-075	8/8	100	C59	C59	nc	na	ng/kg ww
PCB-076	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-077	8/8	100	33.3	1,440	431	na	ng/kg ww
PCB-078	0/8	0	nd	nd	0.233	0.386 – 0.538	ng/kg ww
PCB-079	8/8	100	13.4	280	122	na	ng/kg ww
PCB-080	0/8	0	nd	nd	0.204	0.335 – 0.467	ng/kg ww
PCB-081	8/8	100	2.24 J	67.6	25.6	na	ng/kg ww
PCB-082	8/8	100	55.1	2,550	925	na	ng/kg ww
PCB-083	8/8	100	1,220 C	24,200 C	10,700	na	ng/kg ww
PCB-084	8/8	100	221	4,400	2,040	na	ng/kg ww
PCB-085	8/8	100	290 C	6,250 C	2,350	na	ng/kg ww
PCB-086	8/8	100	659 C	18,200 C	7,660	na	ng/kg ww
PCB-087	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-088	8/8	100	216 C	4,700 C	1,860	na	ng/kg ww
PCB-089	7/8	88	5.53	427	91.5	0.398	ng/kg ww
PCB-090	8/8	100	1,380 C	49,400 C	18,300	na	ng/kg ww
PCB-091	8/8	100	C88	C88	nc	na	ng/kg ww
PCB-092	8/8	100	425	8,230	3,350	na	ng/kg ww
PCB-093	8/8	100	1,420 C	36,300 C	12,500	na	ng/kg ww
PCB-094	8/8	100	6.38	157	47.6	na	ng/kg ww
PCB-095	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-096	8/8	100	6.18	163	51.0	na	ng/kg ww
PCB-097	8/8	100	C86	C86	nc	na	ng/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-098	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-099	8/8	100	C83	C83	nc	na	ng/kg ww
PCB-100	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-101	8/8	100	C90	C90	nc	na	ng/kg ww
PCB-102	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-103	8/8	100	20.1	464	206	na	ng/kg ww
PCB-104	8/8	100	0.267 J	4.31 J	1.89	na	ng/kg ww
PCB-105	8/8	100	434	8,210	3,960	na	ng/kg ww
PCB-106	0/8	0	nd	nd	0.190	0.338 – 0.441	ng/kg ww
PCB-107	8/8	100	50.2 C	875 C	448	na	ng/kg ww
PCB-108	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-109	8/8	100	131	2,210	987	na	ng/kg ww
PCB-110	8/8	100	1,620 C	31,300 C	14,000	na	ng/kg ww
PCB-111	8/8	100	1.92 J	40.1	12.6	na	ng/kg ww
PCB-112	0/8	0	nd	nd	0.146	0.164 – 0.402	ng/kg ww
PCB-113	8/8	100	C90	C90	nc	na	ng/kg ww
PCB-114	8/8	100	25.5	526	224	na	ng/kg ww
PCB-115	8/8	100	C110	C110	nc	na	ng/kg ww
PCB-116	8/8	100	C85	C85	nc	na	ng/kg ww
PCB-117	8/8	100	C85	C85	nc	na	ng/kg ww
PCB-118	8/8	100	1,340	28,000	13,300	na	ng/kg ww
PCB-119	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-120	8/8	100	10.4	254	82.4	na	ng/kg ww
PCB-121	6/8	75	0.699 J	16.9	4.13	0.241 – 0.278	ng/kg ww
PCB-122	8/8	100	14.5	299	136	na	ng/kg ww
PCB-123	8/8	100	24.5	433	207	na	ng/kg ww
PCB-124	8/8	100	C107	C107	nc	na	ng/kg ww
PCB-125	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-126	8/8	100	2.60	52.5	23.8	na	ng/kg ww
PCB-127	8/8	100	4.96	66.5	33.4	na	ng/kg ww
PCB-128	8/8	100	294 C	7,120 C	2,580	na	ng/kg ww
PCB-129	8/8	100	2,610 C	120,000 C	30,100	na	ng/kg ww
PCB-130	8/8	100	141	3,980	1,280	na	ng/kg ww
PCB-131	8/8	100	9.33	434	155	na	ng/kg ww
PCB-132	8/8	100	449	24,300	6,350	na	ng/kg ww
PCB-133	8/8	100	48.6	1,600	431	na	ng/kg ww
PCB-134	8/8	100	92.4 C	3,380 C	957	na	ng/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-135	8/8	100	847 C	51,600 C	11,300	na	ng/kg ww
PCB-136	8/8	100	207	13,300	2,950	na	ng/kg ww
PCB-137	8/8	100	107	1,430	765	na	ng/kg ww
PCB-138	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-139	8/8	100	42.4 C	757 C	331	na	ng/kg ww
PCB-140	8/8	100	C139	C139	nc	na	ng/kg ww
PCB-141	8/8	100	288	30,500	6,110	na	ng/kg ww
PCB-142	0/8	0	nd	nd	0.197	0.130 – 0.478	ng/kg ww
PCB-143	8/8	100	C134	C134	nc	na	ng/kg ww
PCB-144	8/8	100	73.9	6,110	1,390	na	ng/kg ww
PCB-145	8/8	100	0.620 J	8.44 J	3.92	na	ng/kg ww
PCB-146	8/8	100	427	20,600	4,970	na	ng/kg ww
PCB-147	8/8	100	1,680 C	108,000 C	25,100	na	ng/kg ww
PCB-148	8/8	100	5.69	170	46.6	na	ng/kg ww
PCB-149	8/8	100	C147	C147	nc	na	ng/kg ww
PCB-150	8/8	100	3.48	85.3	33.6	na	ng/kg ww
PCB-151	8/8	100	C135	C135	nc	na	ng/kg ww
PCB-152	8/8	100	1.59 J	21.6	10.0	na	ng/kg ww
PCB-153	8/8	100	2,470 C	155,000 C	36,400	na	ng/kg ww
PCB-154	8/8	100	C135	C135	nc	na	ng/kg ww
PCB-155	8/8	100	0.219 J	5.55 J	1.89	na	ng/kg ww
PCB-156	8/8	100	195 C	6,100 C	1,900	na	ng/kg ww
PCB-157	8/8	100	C156	C156	nc	na	ng/kg ww
PCB-158	8/8	100	225	10,700	2,650	na	ng/kg ww
PCB-159	0/8	0	nd	nd	0.158	0.0984 – 0.385	ng/kg ww
PCB-160	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/8	0	nd	nd	0.142	0.0923 – 0.343	ng/kg ww
PCB-162	8/8	100	6.03	127	48.4	na	ng/kg ww
PCB-163	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-164	8/8	100	129	6,750	1,570	na	ng/kg ww
PCB-165	8/8	100	1.59 J	37.9	10.8	na	ng/kg ww
PCB-166	8/8	100	C128	C128	nc	na	ng/kg ww
PCB-167	8/8	100	79.0	2,550	802	na	ng/kg ww
PCB-168	8/8	100	C153	C153	nc	na	ng/kg ww
PCB-169	0/8	0	nd	nd	22.1	3.22 – 200	ng/kg ww
PCB-170	8/8	100	481	42,700	8,150	na	ng/kg ww
PCB-171	8/8	100	153 C	15,000 C	2,840	na	ng/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-172	8/8	100	82.6	7,650	1,460	na	ng/kg ww
PCB-173	8/8	100	C171	C171	nc	na	ng/kg ww
PCB-174	8/8	100	393	44,500	8,260	na	ng/kg ww
PCB-175	8/8	100	22.0	2,130	408	na	ng/kg ww
PCB-176	8/8	100	53.7	6,110	1,180	na	ng/kg ww
PCB-177	8/8	100	359	28,900	5,700	na	ng/kg ww
PCB-178	8/8	100	141	12,400	2,350	na	ng/kg ww
PCB-179	8/8	100	238	20,600	3,970	na	ng/kg ww
PCB-180	8/8	100	1,200 C	118,000 C	21,600	na	ng/kg ww
PCB-181	8/8	100	4.26	141	39.9	na	ng/kg ww
PCB-182	8/8	100	4.73	168	52.2	na	ng/kg ww
PCB-183	8/8	100	401 C	38,400 C	7,590	na	ng/kg ww
PCB-184	8/8	100	0.375 J	8.43	3.01	na	ng/kg ww
PCB-185	8/8	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/8	0	nd	nd	0.149	0.0883 – 0.731	ng/kg ww
PCB-187	8/8	100	836	69,700	13,900	na	ng/kg ww
PCB-188	8/8	100	1.23 J	27.6	8.98	na	ng/kg ww
PCB-189	8/8	100	14.7	1,170	234	na	ng/kg ww
PCB-190	8/8	100	117	11,400	2,100	na	ng/kg ww
PCB-191	8/8	100	20.7	2,020	384	na	ng/kg ww
PCB-192	0/8	0	nd	nd	0.197	0.119 – 0.983	ng/kg ww
PCB-193	8/8	100	C180	C180	nc	na	ng/kg ww
PCB-194	8/8	100	137	19,200	3,340	na	ng/kg ww
PCB-195	8/8	100	73.9	9,860	1,660	na	ng/kg ww
PCB-196	8/8	100	91.2	11,700	2,090	na	ng/kg ww
PCB-197	8/8	100	24.4 C	3,120 C	554	na	ng/kg ww
PCB-198	8/8	100	177 C	22,400 C	4,130	na	ng/kg ww
PCB-199	8/8	100	C198	C198	nc	na	ng/kg ww
PCB-200	8/8	100	C197	C197	nc	na	ng/kg ww
PCB-201	8/8	100	27.8	2,840	532	na	ng/kg ww
PCB-202	8/8	100	49.2	4,060	805	na	ng/kg ww
PCB-203	8/8	100	134	14,800	2,730	na	ng/kg ww
PCB-204	8/8	100	0.112 J	2.70 J	0.752	na	ng/kg ww
PCB-205	8/8	100	7.46	944	169	na	ng/kg ww
PCB-206	8/8	100	41.7	3,280	653	na	ng/kg ww
PCB-207	8/8	100	6.69	552	103	na	ng/kg ww
PCB-208	8/8	100	12.2	647	149	na	ng/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency: Ratio	%	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-209	8/8	100	9.08	139	68.2	na	ng/kg ww
Total PCB congeners	8/8	100	32,130 J	1,346,000 J	394,000	na	ng/kg ww
Aroclor-1016	0/20	0	nd	nd	54	97 – 180	µg/kg ww
Aroclor-1221	0/20	0	nd	nd	110	200 – 360	µg/kg ww
Aroclor-1232	0/20	0	nd	nd	54	97 – 180	µg/kg ww
Aroclor-1242	0/20	0	nd	nd	54	97 – 180	µg/kg ww
Aroclor-1248	0/20	0	nd	nd	54	97 – 180	µg/kg ww
Aroclor-1254	18/20	90	60 J	730	170	99 – 100	µg/kg ww
Aroclor-1260	2/20	10	660	1,400	150	97 – 180	µg/kg ww
Total PCBs	19/20	95	60 J	1,400	270	nc	µg/kg ww
PCB TEQ – Bird	8/8	100	2.230 J	85.5	27.3	na	ng/kg ww
PCB TEQ – Fish	8/8	100	0.02810 J	0.647	0.279	na	ng/kg ww
PCB TEQ – Mammal	8/8	100	0.376 J	8.62 J	3.72	na	ng/kg ww
Pesticides							
2,4'-DDD	6/20	30	4.1 JN	43 JN	9.2	9.7 – 21	µg/kg ww
2,4'-DDE	3/20	15	3.0 JN	11 JN	6.5	9.7 – 45	µg/kg ww
2,4'-DDT	11/20	55	7.4 JN	83 JN	20	9.7 – 34	µg/kg ww
4,4'-DDD	6/20	30	2.2 JN	13 JN	5.1	9.7 – 18	µg/kg ww
4,4'-DDE	14/20	70	1.4 JN	39 JN	6.0	9.8 – 10	µg/kg ww
4,4'-DDT	16/20	80	4.4 JN	82 JN	15	9.7 – 17	µg/kg ww
Total DDTs	20/20	100	2.2 JN	167 JN	42	nc	µg/kg ww
Aldrin	0/20	0	nd	nd	5.4	9.7 – 18	µg/kg ww
Dieldrin	1/20	5	2.8 JN	2.8 JN	5.3	9.7 – 18	µg/kg ww
Total aldrin/dieldrin	1/20	5	2.8 JN	2.8 JN	5.3	nc	µg/kg ww
alpha-BHC	1/20	5	21 JN	21 JN	6.2	9.7 – 18	µg/kg ww
beta-BHC	4/20	20	7.9 JN	13 JN	6.7	9.7 – 18	µg/kg ww
gamma-BHC	0/20	0	nd	nd	5.4	9.7 – 18	µg/kg ww
delta-BHC	0/20	0	nd	nd	5.4	9.7 – 18	µg/kg ww
alpha-Chlordane	1/20	5	12 JN	12 JN	5.7	9.7 – 18	µg/kg ww
gamma-Chlordane	10/20	50	1.4 JN	22 JN	6.2	9.8 – 18	µg/kg ww
alpha-Endosulfan	4/20	20	2.8 JN	30 JN	6.2	9.7 – 15	µg/kg ww
beta-Endosulfan	4/20	20	6.8 JN	16 JN	6.6	9.9 – 18	µg/kg ww
Endosulfan sulfate	0/20	0	nd	nd	14	9.7 – 190	µg/kg ww
Endrin	0/20	0	nd	nd	5.4	9.7 – 18	µg/kg ww
Endrin aldehyde	2/20	10	2.4 JN	11 JN	5.6	9.7 – 18	µg/kg ww
Endrin ketone	2/20	10	6.5 JN	8.4 JN	5.8	9.7 – 18	µg/kg ww
Heptachlor	1/20	5	8.6 JN	8.6 JN	5.6	9.7 – 18	µg/kg ww

Table E.6.3-2, cont. Summary statistics for benthic invertebrates, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Heptachlor epoxide	3/20	15	2.8 JN	6.6 JN	5.3	9.7 – 18	µg/kg ww
Methoxychlor	3/20	15	5.6 JN	42 JN	7.1	9.7 – 15	µg/kg ww
Mirex	0/20	0	nd	nd	5.4	9.7 – 18	µg/kg ww
Toxaphene	0/20	0	nd	nd	320	490 – 2,100	µg/kg ww
Total chlordane	10/20	50	1.4 JN	34 JN	6.8	nc	µg/kg ww
Conventional parameters							
Total solids	20/20	100	4.10	16.6	11.1	na	% ww
Lipid	20/20	100	0.35	1.4	0.89	na	% ww

Table E.6.3-3. Summary statistics for juvenile chinook salmon, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Mercury	6/6	100	0.022	0.031	0.026	na	mg/kg ww
Organometals							
Tributyltin as ion	9/18	50	1.8 J	14 J	4.1	1.5	µg/kg ww
Polychlorinated biphenyls							
Aroclor-1016	0/18	0	nd	nd	1.9	2.0 – 8.3	µg/kg ww
Aroclor-1016/1242	6/6	100	1.93	13.6	4.38	na	µg/kg ww
Aroclor-1221	0/24	0	nd	nd	2.3	0.281 – 13	µg/kg ww
Aroclor-1232	0/24	0	nd	nd	1.5	0.281 – 8.3	µg/kg ww
Aroclor-1242	0/18	0	nd	nd	3.4	3.5 – 15	µg/kg ww
Aroclor-1248	0/24	0	nd	nd	0.59	0.217 – 3.2	µg/kg ww
Aroclor-1254	24/24	100	6.9 J	1,200	120	na	µg/kg ww
Aroclor-1260	13/24	54	4.08	110 J	24	4.7 – 17	µg/kg ww
Total PCBs	24/24	100	6.9 J	1,200	140	na	µg/kg ww
Pesticides							
2,4'-DDD	8/18	44	0.49 J	5.1 J	1.6	0.18 – 14	µg/kg ww
2,4'-DDE	8/18	44	0.72 J	12 J	2.5	0.26 – 4.2	µg/kg ww
2,4'-DDT	13/18	72	1.8 J	83	14	0.22 – 2.0	µg/kg ww
4,4'-DDD	12/18	67	0.27 J	5.4	1.1	0.13 – 0.44	µg/kg ww
4,4'-DDE	13/18	72	1.8 J	14 J	4.8	1.5 – 7.3	µg/kg ww
4,4'-DDT	9/18	50	0.56 J	23	8.0	0.38 – 82	µg/kg ww
Total DDTs	18/18	100	1.4 J	87	25	nc	µg/kg ww
Aldrin	1/18	6	0.61 J	0.61 J	0.24	0.20 – 1.0	µg/kg ww
Dieldrin	4/18	22	0.76 J	5.7	1.1	0.11 – 3.5	µg/kg ww
Total aldrin/dieldrin	5/18	28	0.61 J	5.7	1.1	nc	µg/kg ww
alpha-BHC	1/18	6	1.3	1.3	0.31	0.16 – 2.0	µg/kg ww
beta-BHC	7/18	39	0.39 J	4.4	0.72	0.38 – 1.1	µg/kg ww
gamma-BHC	2/18	11	0.54 J	1.0 J	0.47	0.28 – 1.7	µg/kg ww
delta-BHC	0/18	0	nd	nd	0.44	0.34 – 2.0	µg/kg ww

Table E.6.3-3, cont. Summary statistics for juvenile chinook salmon, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
alpha-Chlordane	4/18	22	0.77 J	4.5 J	0.75	0.36 – 1.5	µg/kg ww
gamma-Chlordane	9/18	50	0.96 J	40	4.7	0.14 – 2.0	µg/kg ww
alpha-Endosulfan	5/18	28	0.21 J	1.5 J	0.52	0.13 – 3.5	µg/kg ww
beta-Endosulfan	1/18	6	0.94 J	0.94 J	0.45	0.35 – 2.9	µg/kg ww
Endosulfan sulfate	4/18	22	0.73 J	2.3	0.61	0.27 – 2.0	µg/kg ww
Endrin	7/18	39	0.39 J	6.5 J	0.92	0.099 – 2.0	µg/kg ww
Endrin aldehyde	5/18	28	0.86 J	9.7	1.5	0.17 – 3.1	µg/kg ww
Endrin ketone	1/18	6	0.80 J	0.80 J	0.60	0.29 – 3.5	µg/kg ww
Heptachlor	4/18	22	0.96 J	2.5 J	0.69	0.45 – 1.9	µg/kg ww
Heptachlor epoxide	12/18	67	0.72 J	3.6	1.7	0.15 – 7.4	µg/kg ww
Methoxychlor	1/18	6	0.49	0.49	0.30	0.27 – 1.2	µg/kg ww
Mirex	0/18	0	nd	nd	0.43	0.27 – 3.2	µg/kg ww
Cis-Nonachlor	0/18	0	nd	nd	0.46	0.12 – 2.3	µg/kg ww
Oxychlordane	6/18	33	0.23 J	1.5 J	0.36	0.12 – 1.0	µg/kg ww
Toxaphene	0/18	0	nd	nd	66	16 – 560	µg/kg ww
Trans-Nonachlor	6/18	33	0.70 J	3.2	0.74	0.14 – 1.5	µg/kg ww
Total chlordane	11/18	61	0.24 J	41 J	6.0	nc	µg/kg ww
Conventional parameters							
Total solids	24/24	100	20	22	21	na	% ww
Lipid	24/24	100	0.55	3.50	1.8	na	% ww

Table E.6.3-4. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Metals and trace elements							
Antimony	7/9	78	0.0015 J	0.0037 J	0.0040	0.020	mg/kg ww
Arsenic	9/9	100	2.540	13	5.5	na	mg/kg ww
Arsenic (inorganic)	2/2	100	0.010	0.010	0.010	na	mg/kg ww
Cadmium	9/9	100	0.0055	0.0295	0.015	na	mg/kg ww
Chromium	2/9	22	0.13	0.16	0.07	0.08 – 0.11	mg/kg ww
Cobalt	7/7	100	0.0338 J	0.0736 J	0.0524	na	mg/kg ww
Copper	9/9	100	6.570 J	16	9.3	na	mg/kg ww
Lead	9/9	100	0.012	0.24 J	0.068	na	mg/kg ww
Mercury	10/10	100	0.034	0.11	0.063	na	mg/kg ww
Molybdenum	7/7	100	0.0108	0.0168	0.0126	na	mg/kg ww
Nickel	9/9	100	0.022 J	0.12	0.046	na	mg/kg ww
Selenium	7/7	100	0.11	0.175	0.14	na	mg/kg ww
Silver	9/9	100	0.0885 J	0.19	0.12	na	mg/kg ww
Thallium	0/7	0	nd	nd	0.002	0.0030 – 0.0042	mg/kg ww
Vanadium	0/7	0	nd	nd	0.1	0.2 – 0.21	mg/kg ww
Zinc	9/9	100	29.0	39	34	na	mg/kg ww
Organometals							
Monobutyltin as ion	0/7	0	nd	nd	0.75	1.5	µg/kg ww
Dibutyltin as ion	0/7	0	nd	nd	0.75	1.5	µg/kg ww
Tributyltin as ion	9/10	90	0.81 J	82	14	2.0	µg/kg ww
Tetrabutyltin as ion	0/7	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/9	0	nd	nd	220	16 – 570	µg/kg ww
2-Methylnaphthalene	1/9	11	1.3 J	1.3 J	5.2	0.57 – 43	µg/kg ww
Acenaphthene	7/9	78	0.30 J	0.89	1.7	11	µg/kg ww
Acenaphthylene	6/9	67	0.20 J	0.46 J	2.0	0.72 – 16	µg/kg ww
Anthracene	7/9	78	0.19 J	0.90	2.0	16	µg/kg ww
Benzo(a)anthracene	6/9	67	0.081 J	0.71 J	2.0	0.72 – 16	µg/kg ww
Benzo(a)pyrene	2/9	22	0.29 J	0.59 J	3.3	0.71 – 27	µg/kg ww
Benzo(b)fluoranthene	3/9	33	0.12 J	0.40 J	5.0	0.71 – 43	µg/kg ww
Benzo(g,h,i)perylene	2/9	22	0.27 J	0.45 J	3.3	0.71 – 27	µg/kg ww
Benzo(k)fluoranthene	2/9	22	0.25 J	0.44 J	5.1	0.71 – 43	µg/kg ww
Total benzofluoranthenes	3/9	33	0.12 J	0.84 J	5.1	nc	µg/kg ww
Chrysene	6/9	67	0.13 J	0.80	2.0	0.72 – 16	µg/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Dibenzo(a,h)anthracene	1/9	11	0.13 J	0.13 J	5.0	0.71 – 43	µg/kg ww
Dibenzofuran	7/9	78	0.40 J	0.83	3.4	27	µg/kg ww
Fluoranthene	7/9	78	0.24 J	3.0	2.4	16	µg/kg ww
Fluorene	7/9	78	0.31 J	0.98	2.2	16	µg/kg ww
Indeno(1,2,3-cd)pyrene	2/9	22	0.21 J	0.37 J	3.3	0.71 – 27	µg/kg ww
Naphthalene	0/9	0	nd	nd	5.6	1.5 – 43	µg/kg ww
Phenanthrene	3/9	33	0.72	5.9	2.7	0.55 – 16	µg/kg ww
Pyrene	7/9	78	0.28 J	2.5	2.3	16	µg/kg ww
Total HPAH	7/9	78	0.53 J	9.4 J	6.8	nc	µg/kg ww
Total LPAH	7/9	78	0.97 J	9.0 J	6.9	nc	µg/kg ww
Carcinogenic PAHs – Mammal	6/9	67	0.54 J	0.84 J	3.7	0.65 – 29	µg/kg ww
Total PAH	7/9	78	1.88 J	18.4 J	8.9	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/9	0	nd	nd	31	16 – 130	µg/kg ww
Butyl benzyl phthalate	0/9	0	nd	nd	470	16 – 1,200	µg/kg ww
Diethyl phthalate	1/9	11	190 J	190 J	420	27 – 1,200	µg/kg ww
Dimethyl phthalate	0/9	0	nd	nd	220	11 – 570	µg/kg ww
Di-n-butyl phthalate	2/9	22	240	400 J	190	27 – 410	µg/kg ww
Di-n-octyl phthalate	0/9	0	nd	nd	1,100	16 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/9	0	nd	nd	220	16 – 570	µg/kg ww
1,2-Dichlorobenzene	0/9	0	nd	nd	220	16 – 570	µg/kg ww
1,2-Diphenylhydrazine	0/2	0	nd	nd	27	53	µg/kg ww
1,3-Dichlorobenzene	0/9	0	nd	nd	220	16 – 570	µg/kg ww
1,4-Dichlorobenzene	0/9	0	nd	nd	220	16 – 570	µg/kg ww
2,4,5-Trichlorophenol	0/9	0	nd	nd	1,100	110 – 2,900	µg/kg ww
2,4,6-Trichlorophenol	0/9	0	nd	nd	1,100	110 – 2,900	µg/kg ww
2,4-Dichlorophenol	0/9	0	nd	nd	470	27 – 1,200	µg/kg ww
2,4-Dimethylphenol	0/9	0	nd	nd	470	27 – 1,200	µg/kg ww
2,4-Dinitrophenol	0/9	0	nd	nd	4,700	53 – 12,000	µg/kg ww
2,4-Dinitrotoluene	0/9	0	nd	nd	560	11 – 2,900	µg/kg ww
2,6-Dinitrotoluene	0/9	0	nd	nd	560	11 – 2,900	µg/kg ww
2-Chlorophenol	0/9	0	nd	nd	470	53 – 1,200	µg/kg ww
2-Methylphenol	0/9	0	nd	nd	470	27 – 1,200	µg/kg ww
2-Nitroaniline	0/9	0	nd	nd	1,100	110 – 2,900	µg/kg ww
2-Nitrophenol	0/9	0	nd	nd	1,100	27 – 2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/9	0	nd	nd	11,000	27 – 29,000	µg/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency: Ratio	%	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
3-Nitroaniline	0/7	0	nd	nd	2,900	5,700	µg/kg ww
4,6-Dinitro-o-cresol	0/9	0	nd	nd	2,200	53 – 5,700	µg/kg ww
4-Bromophenyl phenyl ether	0/9	0	nd	nd	220	11 – 570	µg/kg ww
4-Chloro-3-methylphenol	0/9	0	nd	nd	1,100	53 – 2,900	µg/kg ww
4-Chloroaniline	0/7	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/9	0	nd	nd	220	16 – 570	µg/kg ww
4-Methylphenol	0/9	0	nd	nd	470	27 – 1,200	µg/kg ww
4-Nitroaniline	0/7	0	nd	nd	1,700	2,900 – 5,700	µg/kg ww
4-Nitrophenol	0/9	0	nd	nd	2,200	53 – 5,700	µg/kg ww
Aniline	0/7	0	nd	nd	6,000	12,000	µg/kg ww
Benzidine	0/2	0	nd	nd	36,000	72,000	µg/kg ww
Benzoic acid	0/9	0	nd	nd	4,700	110 – 12,000	µg/kg ww
Benzyl alcohol	0/9	0	nd	nd	260	27 – 1,200	µg/kg ww
bis(2-chloroethoxy)methane	0/9	0	nd	nd	350	27 – 2,900	µg/kg ww
bis(2-chloroethyl)ether	0/9	0	nd	nd	260	16 – 1,200	µg/kg ww
bis(2-chloroisopropyl)ether	0/9	0	nd	nd	230	53 – 570	µg/kg ww
Caffeine	0/2	0	nd	nd	2.7	5.3	µg/kg ww
Carbazole	0/9	0	nd	nd	1,100	27 – 2,900	µg/kg ww
Coprostanol	0/2	0	nd	nd	55	110	µg/kg ww
Hexachlorobenzene	1/9	11	0.93 JN	0.93 JN	4.3	7.2 – 16	µg/kg ww
Hexachlorobutadiene	0/9	0	nd	nd	220	27 – 570	µg/kg ww
Hexachlorocyclopentadiene	0/9	0	nd	nd	28,000	27 – 72,000	µg/kg ww
Hexachloroethane	0/9	0	nd	nd	220	27 – 570	µg/kg ww
Isophorone	0/9	0	nd	nd	220	27 – 570	µg/kg ww
Nitrobenzene	0/9	0	nd	nd	220	27 – 570	µg/kg ww
N-Nitrosodimethylamine	0/9	0	nd	nd	1,600	110 – 12,000	µg/kg ww
N-Nitroso-di-n-propylamine	0/9	0	nd	nd	220	27 – 570	µg/kg ww
N-Nitrosodiphenylamine	0/9	0	nd	nd	220	27 – 570	µg/kg ww
Pentachlorophenol	0/9	0	nd	nd	4.7	3.3 – 27	µg/kg ww
Phenol	0/9	0	nd	nd	600	110 – 1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	3/3	100	1.11 J	1.97 J	1.48	na	ng/kg ww
PCB-002	3/3	100	0.452 J	0.634 J	0.530	na	ng/kg ww
PCB-003	3/3	100	1.14 J	1.60 J	1.31	na	ng/kg ww
PCB-004	3/3	100	7.04	15.4	10.3	na	ng/kg ww
PCB-005	3/3	100	0.626 J	2.22 J	1.28	na	ng/kg ww
PCB-006	3/3	100	14.6	39.8	23.6	na	ng/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-007	3/3	100	1.09 J	3.17 J	2.00	na	ng/kg ww
PCB-008	3/3	100	26.4	59.0	41.0	na	ng/kg ww
PCB-009	3/3	100	1.48 J	2.89 J	2.13	na	ng/kg ww
PCB-010	3/3	100	0.494 J	1.20 J	0.734	na	ng/kg ww
PCB-011	3/3	100	6.33	8.84	7.55	na	ng/kg ww
PCB-012	3/3	100	9.33 CJ	16.0 C	12.0	na	ng/kg ww
PCB-013	3/3	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/3	0	nd	nd	0.181	0.292 – 0.407	ng/kg ww
PCB-015	3/3	100	193	322	247	na	ng/kg ww
PCB-016	3/3	100	22.4	68.0	44.3	na	ng/kg ww
PCB-017	3/3	100	40.8	110	73.1	na	ng/kg ww
PCB-018	3/3	100	114 C	289 C	201	na	ng/kg ww
PCB-019	3/3	100	3.14 J	5.36	4.31	na	ng/kg ww
PCB-020	3/3	100	1,710 C	3,210 C	2,480	na	ng/kg ww
PCB-021	3/3	100	184 C	391 C	291	na	ng/kg ww
PCB-022	3/3	100	233	452	349	na	ng/kg ww
PCB-023	0/3	0	nd	nd	0.585	0.797 – 1.40	ng/kg ww
PCB-024	3/3	100	2.40 J	6.73	4.10	na	ng/kg ww
PCB-025	3/3	100	57.2	231	129	na	ng/kg ww
PCB-026	3/3	100	129 C	523 C	282	na	ng/kg ww
PCB-027	3/3	100	25.5	78.6	43.5	na	ng/kg ww
PCB-028	3/3	100	C20	C20	nc	na	ng/kg ww
PCB-029	3/3	100	C26	C26	nc	na	ng/kg ww
PCB-030	3/3	100	C18	C18	nc	na	ng/kg ww
PCB-031	3/3	100	825	1,760	1,310	na	ng/kg ww
PCB-032	3/3	100	71.6	144	97.1	na	ng/kg ww
PCB-033	3/3	100	C21	C21	nc	na	ng/kg ww
PCB-034	3/3	100	2.77 J	6.01	3.86	na	ng/kg ww
PCB-035	3/3	100	3.69 J	7.03	5.36	na	ng/kg ww
PCB-036	0/3	0	nd	nd	0.636	0.868 – 1.53	ng/kg ww
PCB-037	3/3	100	448	784	652	na	ng/kg ww
PCB-038	0/3	0	nd	nd	0.621	0.846 – 1.49	ng/kg ww
PCB-039	3/3	100	2.38 J	8.37	5.12	na	ng/kg ww
PCB-040	3/3	100	249 C	549 C	381	na	ng/kg ww
PCB-041	3/3	100	C40	C40	nc	na	ng/kg ww
PCB-042	3/3	100	186	362	262	na	ng/kg ww
PCB-043	3/3	100	72.4	125	93.6	na	ng/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-044	3/3	100	1,270 C	2,140 C	1,590	na	ng/kg ww
PCB-045	3/3	100	33.8 C	62.7 C	46.1	na	ng/kg ww
PCB-046	3/3	100	8.92	15.7	11.8	na	ng/kg ww
PCB-047	3/3	100	C44	C44	nc	na	ng/kg ww
PCB-048	3/3	100	87.6	215	154	na	ng/kg ww
PCB-049	3/3	100	781 C	1,860 C	1,230	na	ng/kg ww
PCB-050	3/3	100	42.4 C	87.0 C	60.2	na	ng/kg ww
PCB-051	3/3	100	C45	C45	nc	na	ng/kg ww
PCB-052	3/3	100	2,360	4,530	3,250	na	ng/kg ww
PCB-053	3/3	100	C50	C50	nc	na	ng/kg ww
PCB-054	0/3	0	nd	nd	0.0612	0.111 – 0.132	ng/kg ww
PCB-055	0/3	0	nd	nd	1.73	2.33 – 4.77	ng/kg ww
PCB-056	3/3	100	392	676	531	na	ng/kg ww
PCB-057	3/3	100	8.80	21.9	14.2	na	ng/kg ww
PCB-058	3/3	100	9.47	18.5	14.7	na	ng/kg ww
PCB-059	3/3	100	117 C	243 C	169	na	ng/kg ww
PCB-060	3/3	100	524	973	787	na	ng/kg ww
PCB-061	3/3	100	4,380 C	6,650 C	5,640	na	ng/kg ww
PCB-062	3/3	100	C59	C59	nc	na	ng/kg ww
PCB-063	3/3	100	99.6	175	139	na	ng/kg ww
PCB-064	3/3	100	507	927	722	na	ng/kg ww
PCB-065	3/3	100	C44	C44	nc	na	ng/kg ww
PCB-066	3/3	100	3,280	5,280	4,450	na	ng/kg ww
PCB-067	3/3	100	34.6	68.6	46.1	na	ng/kg ww
PCB-068	3/3	100	15.1	47.9	30.5	na	ng/kg ww
PCB-069	3/3	100	C49	C49	nc	na	ng/kg ww
PCB-070	3/3	100	C61	C61	nc	na	ng/kg ww
PCB-071	3/3	100	C40	C40	nc	na	ng/kg ww
PCB-072	3/3	100	35.1	93.9	61.6	na	ng/kg ww
PCB-073	0/3	0	nd	nd	0.0583	0.115 – 0.118	ng/kg ww
PCB-074	3/3	100	C61	C61	nc	na	ng/kg ww
PCB-075	3/3	100	C59	C59	nc	na	ng/kg ww
PCB-076	3/3	100	C61	C61	nc	na	ng/kg ww
PCB-077	3/3	100	148	218	194	na	ng/kg ww
PCB-078	0/3	0	nd	nd	1.71	2.31 – 4.72	ng/kg ww
PCB-079	3/3	100	64.7	88.9	77.9	na	ng/kg ww
PCB-080	0/3	0	nd	nd	1.58	2.12 – 4.35	ng/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-081	1/3	33	9.49 J	9.49 J	6.86	10.8 – 11.4	ng/kg ww
PCB-082	3/3	100	227	309	266	na	ng/kg ww
PCB-083	3/3	100	3,980 C	5,490 C	4,590	na	ng/kg ww
PCB-084	3/3	100	403	746	595	na	ng/kg ww
PCB-085	3/3	100	824 C	1,120 C	937	na	ng/kg ww
PCB-086	3/3	100	2,530 C	3,510 C	3,020	na	ng/kg ww
PCB-087	3/3	100	C86	C86	nc	na	ng/kg ww
PCB-088	3/3	100	393 C	668 C	529	na	ng/kg ww
PCB-089	3/3	100	4.89	5.41	5.13	na	ng/kg ww
PCB-090	3/3	100	6,430 C	9,000 C	7,830	na	ng/kg ww
PCB-091	3/3	100	C88	C88	nc	na	ng/kg ww
PCB-092	3/3	100	962	1,590	1,320	na	ng/kg ww
PCB-093	3/3	100	1,840 C	3,460 C	2,840	na	ng/kg ww
PCB-094	3/3	100	5.35	13.4	9.48	na	ng/kg ww
PCB-095	3/3	100	C93	C93	nc	na	ng/kg ww
PCB-096	3/3	100	1.98 J	3.53 J	2.89	na	ng/kg ww
PCB-097	3/3	100	C86	C86	nc	na	ng/kg ww
PCB-098	3/3	100	C93	C93	nc	na	ng/kg ww
PCB-099	3/3	100	C83	C83	nc	na	ng/kg ww
PCB-100	3/3	100	C93	C93	nc	na	ng/kg ww
PCB-101	3/3	100	C90	C90	nc	na	ng/kg ww
PCB-102	3/3	100	C93	C93	nc	na	ng/kg ww
PCB-103	3/3	100	47.6	85.4	66.1	na	ng/kg ww
PCB-104	2/3	67	0.226 J	0.341 J	0.222	0.197	ng/kg ww
PCB-105	3/3	100	2,200	2,630	2,370	na	ng/kg ww
PCB-106	0/3	0	nd	nd	1.42	2.60 – 3.11	ng/kg ww
PCB-107	3/3	100	153 C	201 C	177	na	ng/kg ww
PCB-108	3/3	100	C86	C86	nc	na	ng/kg ww
PCB-109	3/3	100	404	569	479	na	ng/kg ww
PCB-110	3/3	100	3,910 C	6,240 C	5,440	na	ng/kg ww
PCB-111	3/3	100	4.01 J	7.19	5.72	na	ng/kg ww
PCB-112	0/3	0	nd	nd	1.20	1.65 – 3.75	ng/kg ww
PCB-113	3/3	100	C90	C90	nc	na	ng/kg ww
PCB-114	3/3	100	171	211	187	na	ng/kg ww
PCB-115	3/3	100	C110	C110	nc	na	ng/kg ww
PCB-116	3/3	100	C85	C85	nc	na	ng/kg ww
PCB-117	3/3	100	C85	C85	nc	na	ng/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-118	3/3	100	6,330	8,040	7,050	na	ng/kg ww
PCB-119	3/3	100	C86	C86	nc	na	ng/kg ww
PCB-120	3/3	100	5.69	13.4	9.93	na	ng/kg ww
PCB-121	0/3	0	nd	nd	1.16	1.59 – 3.63	ng/kg ww
PCB-122	3/3	100	81.5	99.1	89.8	na	ng/kg ww
PCB-123	3/3	100	83.4	114	95.8	na	ng/kg ww
PCB-124	3/3	100	C107	C107	nc	na	ng/kg ww
PCB-125	3/3	100	C86	C86	nc	na	ng/kg ww
PCB-126	3/3	100	10.2	12.4	11.1	na	ng/kg ww
PCB-127	3/3	100	16.2	22.5	18.7	na	ng/kg ww
PCB-128	3/3	100	1,080 C	1,410 C	1,290	na	ng/kg ww
PCB-129	3/3	100	9,380 C	13,700 C	11,800	na	ng/kg ww
PCB-130	3/3	100	409	585	515	na	ng/kg ww
PCB-131	3/3	100	57.0	78.6	70.8	na	ng/kg ww
PCB-132	3/3	100	1,060	2,080	1,570	na	ng/kg ww
PCB-133	3/3	100	148	225	196	na	ng/kg ww
PCB-134	3/3	100	247 C	431 C	360	na	ng/kg ww
PCB-135	3/3	100	2,180 C	4,110 C	3,150	na	ng/kg ww
PCB-136	3/3	100	329	569	476	na	ng/kg ww
PCB-137	3/3	100	280	418	350	na	ng/kg ww
PCB-138	3/3	100	C129	C129	nc	na	ng/kg ww
PCB-139	3/3	100	94.7 C	148 C	117	na	ng/kg ww
PCB-140	3/3	100	C139	C139	nc	na	ng/kg ww
PCB-141	3/3	100	1,200	2,170	1,630	na	ng/kg ww
PCB-142	0/3	0	nd	nd	2.92	4.38 – 7.51	ng/kg ww
PCB-143	3/3	100	C134	C134	nc	na	ng/kg ww
PCB-144	3/3	100	240	374	318	na	ng/kg ww
PCB-145	0/3	0	nd	nd	0.0933	0.185 – 0.189	ng/kg ww
PCB-146	3/3	100	1,480	2,270	1,920	na	ng/kg ww
PCB-147	3/3	100	5,940 C	11,100 C	8,350	na	ng/kg ww
PCB-148	3/3	100	9.13	20.8	16.3	na	ng/kg ww
PCB-149	3/3	100	C147	C147	nc	na	ng/kg ww
PCB-150	3/3	100	9.05	14.9	12.3	na	ng/kg ww
PCB-151	3/3	100	C135	C135	nc	na	ng/kg ww
PCB-152	3/3	100	1.78 J	3.44 J	2.65	na	ng/kg ww
PCB-153	3/3	100	10,400 C	14,400 C	12,500	na	ng/kg ww
PCB-154	3/3	100	C135	C135	nc	na	ng/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-155	3/3	100	0.760 J	1.17 J	0.904	na	ng/kg ww
PCB-156	3/3	100	866 C	1,110 C	987	na	ng/kg ww
PCB-157	3/3	100	C156	C156	nc	na	ng/kg ww
PCB-158	3/3	100	758	1,160	999	na	ng/kg ww
PCB-159	3/3	100	53.3	133	81.6	na	ng/kg ww
PCB-160	3/3	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/3	0	nd	nd	2.12	3.18 – 5.45	ng/kg ww
PCB-162	3/3	100	21.7	31.1	24.8	na	ng/kg ww
PCB-163	3/3	100	C129	C129	nc	na	ng/kg ww
PCB-164	3/3	100	446	754	594	na	ng/kg ww
PCB-165	0/3	0	nd	nd	2.44	3.65 – 6.26	ng/kg ww
PCB-166	3/3	100	C128	C128	nc	na	ng/kg ww
PCB-167	3/3	100	352	425	389	na	ng/kg ww
PCB-168	3/3	100	C153	C153	nc	na	ng/kg ww
PCB-169	1/3	33	0.468	0.468	0.364	0.391 – 0.854	ng/kg ww
PCB-170	3/3	100	1,510	2,620	2,050	na	ng/kg ww
PCB-171	3/3	100	571 C	1,040 C	800	na	ng/kg ww
PCB-172	3/3	100	268	491	365	na	ng/kg ww
PCB-173	3/3	100	C171	C171	nc	na	ng/kg ww
PCB-174	3/3	100	1,060	2,540	1,630	na	ng/kg ww
PCB-175	3/3	100	59.4	126	90.3	na	ng/kg ww
PCB-176	3/3	100	189	363	264	na	ng/kg ww
PCB-177	3/3	100	901	2,060	1,440	na	ng/kg ww
PCB-178	3/3	100	479	904	675	na	ng/kg ww
PCB-179	3/3	100	639	1,310	952	na	ng/kg ww
PCB-180	3/3	100	4,100 C	7,740 C	5,780	na	ng/kg ww
PCB-181	3/3	100	9.66	15.6	12.9	na	ng/kg ww
PCB-182	0/3	0	nd	nd	0.228	0.230 – 0.762	ng/kg ww
PCB-183	3/3	100	1,450 C	2,680 C	2,000	na	ng/kg ww
PCB-184	3/3	100	1.27 J	2.04 J	1.54	na	ng/kg ww
PCB-185	3/3	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/3	0	nd	nd	0.177	0.179 – 0.592	ng/kg ww
PCB-187	3/3	100	2,800	5,530	4,020	na	ng/kg ww
PCB-188	3/3	100	4.57 J	6.15	5.56	na	ng/kg ww
PCB-189	3/3	100	57.7	87.5	71.2	na	ng/kg ww
PCB-190	3/3	100	374	703	532	na	ng/kg ww
PCB-191	3/3	100	87.9	149	117	na	ng/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-192	0/3	0	nd	nd	0.211	0.213 – 0.705	ng/kg ww
PCB-193	3/3	100	C180	C180	nc	na	ng/kg ww
PCB-194	3/3	100	502	875	657	na	ng/kg ww
PCB-195	3/3	100	169	368	263	na	ng/kg ww
PCB-196	3/3	100	335	653	468	na	ng/kg ww
PCB-197	3/3	100	84.9 C	167 C	116	na	ng/kg ww
PCB-198	3/3	100	594 C	1,060 C	757	na	ng/kg ww
PCB-199	3/3	100	C198	C198	nc	na	ng/kg ww
PCB-200	3/3	100	C197	C197	nc	na	ng/kg ww
PCB-201	3/3	100	132	229	172	na	ng/kg ww
PCB-202	3/3	100	248	375	301	na	ng/kg ww
PCB-203	3/3	100	439	765	572	na	ng/kg ww
PCB-204	3/3	100	0.236 J	0.374 J	0.306	na	ng/kg ww
PCB-205	3/3	100	25.5	44.3	34.2	na	ng/kg ww
PCB-206	3/3	100	119	177	148	na	ng/kg ww
PCB-207	3/3	100	17.1	26.9	21.2	na	ng/kg ww
PCB-208	3/3	100	32.2	49.2	42.5	na	ng/kg ww
PCB-209	3/3	100	11.8	28.5	20.7	na	ng/kg ww
Total PCB congeners	3/3	100	111,000 J	149,300 J	136,000	na	ng/kg ww
Aroclor-1016	0/12	0	nd	nd	7.3	5.3 – 20	µg/kg ww
Aroclor-1016/1242	1/1	100	5.6 J	5.6 J	5.6	na	µg/kg ww
Aroclor-1221	0/12	0	nd	nd	11	5.3 – 29	µg/kg ww
Aroclor-1232	0/12	0	nd	nd	7.3	5.3 – 20	µg/kg ww
Aroclor-1242	0/12	0	nd	nd	7.3	5.3 – 20	µg/kg ww
Aroclor-1248	7/13	54	9.0	67	31	0.21 – 20	µg/kg ww
Aroclor-1254	10/13	77	43 J	130	75	20	µg/kg ww
Aroclor-1260	10/13	77	31 J	120	61	20	µg/kg ww
Total PCBs	10/13	77	80 J	300	160	nc	µg/kg ww
PCB TEQ – Bird	3/3	100	9.37	13.30 J	11.9	na	ng/kg ww
PCB TEQ – Fish	3/3	100	0.1220	0.1500	0.134	na	ng/kg ww
PCB TEQ – Mammal	3/3	100	1.37	1.65	1.47	na	ng/kg ww
Pesticides							
2,4'-DDD	1/7	14	4.0 JN	4.0 JN	3.3	1.5 – 7.2	µg/kg ww
2,4'-DDE	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
2,4'-DDT	7/7	100	8.0 JN	13 JN	10	na	µg/kg ww
4,4'-DDD	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
4,4'-DDE	7/7	100	2.0 JN	2.8 JN	2.3	na	µg/kg ww

Table E.6.3-4, cont. Summary statistics for Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,4'-DDT	7/7	100	6.5 JN	11 JN	8.2	na	µg/kg ww
Total DDTs	7/7	100	16.9 JN	27 JN	21	nc	µg/kg ww
Aldrin	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Dieldrin	0/7	0	nd	nd	3.4	4.1 – 7.2	µg/kg ww
Total aldrin/dieldrin	0/7	0	nd	nd	3.4	nc	µg/kg ww
alpha-BHC	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
beta-BHC	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
gamma-BHC	1/7	14	4.0 JN	4.0 JN	3.7	7.2	µg/kg ww
delta-BHC	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
alpha-Chlordane	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
gamma-Chlordane	7/7	100	3.0 JN	5.4 JN	3.9	na	µg/kg ww
alpha-Endosulfan	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
beta-Endosulfan	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Endosulfan sulfate	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Endrin	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Endrin aldehyde	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Endrin ketone	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Heptachlor	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Heptachlor epoxide	6/7	86	1.2 JN	2.3 JN	2.0	7.2	µg/kg ww
Methoxychlor	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Mirex	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Toxaphene	0/7	0	nd	nd	160	120 – 360	µg/kg ww
Total chlordane	7/7	100	3.0 JN	5.4 JN	3.9	nc	µg/kg ww
Conventional parameters							
Total solids	12/12	100	15.1	22	18	na	% ww
Lipid	12/12	100	0.146 J	2.4	0.62	na	% ww

Table E.6.3-5. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	3/4	75	0.0051 J	0.0087	0.0080	0.020	mg/kg ww
Arsenic	4/4	100	3.080	7.0	4.6	na	mg/kg ww
Arsenic (inorganic)	2/2	100	0.050	0.090	0.070	na	mg/kg ww
Cadmium	4/4	100	0.11	0.7880	0.48	na	mg/kg ww
Chromium	2/4	50	0.083	0.16	0.07	0.01 – 0.08	mg/kg ww
Cobalt	3/3	100	0.1680 J	0.3250 J	0.2253	na	mg/kg ww
Copper	4/4	100	17.5	43	29	na	mg/kg ww
Lead	4/4	100	0.037	0.18	0.093	na	mg/kg ww
Mercury	4/4	100	0.026	0.067	0.039	na	mg/kg ww
Molybdenum	3/3	100	0.0840	0.1310	0.106	na	mg/kg ww
Nickel	4/4	100	0.082	0.284 J	0.18	na	mg/kg ww
Selenium	3/3	100	0.23	0.249	0.24	na	mg/kg ww
Silver	4/4	100	0.2460 J	0.50	0.37	na	mg/kg ww
Thallium	2/3	67	0.0004 J	0.0005 J	0.0008	0.0032	mg/kg ww
Vanadium	1/3	33	0.2 J	0.2 J	0.1	0.2 – 0.24	mg/kg ww
Zinc	4/4	100	14.8	22.7	18	na	mg/kg ww
Organometals							
Monobutyltin as ion	2/3	67	1.3 J	1.6	1.2	1.5	µg/kg ww
Dibutyltin as ion	3/3	100	7.7	9.1	8.4	na	µg/kg ww
Tributyltin as ion	4/4	100	16	59	38	na	µg/kg ww
Tetrabutyltin as ion	0/3	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/4	0	nd	nd	220	24 – 580	µg/kg ww
2-Methylnaphthalene	3/4	75	2.1	3.4	10	64	µg/kg ww
Acenaphthene	3/4	75	6.5	12	8.3	16	µg/kg ww
Acenaphthylene	3/4	75	1.7	2.2	4.4	24	µg/kg ww
Anthracene	2/4	50	3.5	3.7	4.9	0.72 – 24	µg/kg ww
Benzo(a)anthracene	1/4	25	1.1	1.1	3.5	0.72 – 24	µg/kg ww
Benzo(a)pyrene	0/4	0	nd	nd	6.1	0.72 – 40	µg/kg ww
Benzo(b)fluoranthene	2/4	50	0.31 J	0.49 J	9.1	7.2 – 64	µg/kg ww
Benzo(g,h,i)perylene	2/4	50	0.28 J	0.90	6.2	7.2 – 40	µg/kg ww
Benzo(k)fluoranthene	2/4	50	0.54 J	0.60 J	9.2	7.2 – 64	µg/kg ww
Total benzofluoranthenes	2/4	50	0.85 J	1.09 J	9.4	nc	µg/kg ww
Chrysene	1/4	25	1.5	1.5	3.6	0.72 – 24	µg/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency: Ratio	%	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	0/4	0	nd	nd	9.1	0.72 – 64	µg/kg ww
Dibenzofuran	3/4	75	2.4	3.8	7.5	40	µg/kg ww
Fluoranthene	1/4	25	3.4	3.4	4.0	0.72 – 24	µg/kg ww
Fluorene	3/4	75	1.5	3.4	4.9	24	µg/kg ww
Indeno(1,2,3-cd)pyrene	2/4	50	0.14 J	0.74	6.1	7.2 – 40	µg/kg ww
Naphthalene	2/4	50	5.2	5.5	11	4.4 – 64	µg/kg ww
Phenanthrene	3/4	75	3.0	7.4	6.4	24	µg/kg ww
Pyrene	1/4	25	1.8	1.8	3.6	0.72 – 24	µg/kg ww
Total HPAH	2/4	50	2.73 J	9.1 J	12	nc	µg/kg ww
Total LPAH	3/4	75	18.7	30	26	nc	µg/kg ww
Carcinogenic PAHs – Mammal	2/4	50	0.73 J	0.73 J	6.5	6.2 – 43	µg/kg ww
Total PAH	3/4	75	18.7	32 J	28	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/4	0	nd	nd	36	24 – 130	µg/kg ww
Butyl benzyl phthalate	1/4	25	2,800	2,800	1,000	24 – 1,200	µg/kg ww
Diethyl phthalate	1/4	25	180 J	180 J	350	40 – 1,200	µg/kg ww
Dimethyl phthalate	0/4	0	nd	nd	220	16 – 580	µg/kg ww
Di-n-butyl phthalate	0/4	0	nd	nd	380	40 – 1,200	µg/kg ww
Di-n-octyl phthalate	0/4	0	nd	nd	1,100	24 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/4	0	nd	nd	220	24 – 580	µg/kg ww
1,2-Dichlorobenzene	0/4	0	nd	nd	220	24 – 580	µg/kg ww
1,2-Diphenylhydrazine	0/1	0	nd	nd	40	80	µg/kg ww
1,3-Dichlorobenzene	0/4	0	nd	nd	220	24 – 580	µg/kg ww
1,4-Dichlorobenzene	0/4	0	nd	nd	220	24 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/4	0	nd	nd	1,100	160 – 2,900	µg/kg ww
2,4,6-Trichlorophenol	0/4	0	nd	nd	1,100	160 – 2,900	µg/kg ww
2,4-Dichlorophenol	0/4	0	nd	nd	460	40 – 1,200	µg/kg ww
2,4-Dimethylphenol	0/4	0	nd	nd	460	40 – 1,200	µg/kg ww
2,4-Dinitrophenol	0/4	0	nd	nd	4,500	80 – 12,000	µg/kg ww
2,4-Dinitrotoluene	0/4	0	nd	nd	660	16 – 2,900	µg/kg ww
2,6-Dinitrotoluene	0/4	0	nd	nd	660	16 – 2,900	µg/kg ww
2-Chlorophenol	0/4	0	nd	nd	460	80 – 1,200	µg/kg ww
2-Methylphenol	0/4	0	nd	nd	460	40 – 1,200	µg/kg ww
2-Nitroaniline	0/4	0	nd	nd	1,100	160 – 2,900	µg/kg ww
2-Nitrophenol	0/4	0	nd	nd	1,100	40 – 2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/3	0	nd	nd	15,000	29,000	µg/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
3-Nitroaniline	0/3	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww
4,6-Dinitro-o-cresol	0/4	0	nd	nd	2,200	80 – 5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/4	0	nd	nd	220	16 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/4	0	nd	nd	1,100	80 – 2,900	µg/kg ww
4-Chloroaniline	0/3	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/4	0	nd	nd	220	24 – 580	µg/kg ww
4-Methylphenol	0/4	0	nd	nd	460	40 – 1,200	µg/kg ww
4-Nitroaniline	0/4	0	nd	nd	1,500	160 – 5,700	µg/kg ww
4-Nitrophenol	0/4	0	nd	nd	2,200	80 – 5,800	µg/kg ww
Aniline	0/3	0	nd	nd	6,000	12,000	µg/kg ww
Benzidine	0/1	0	nd	nd	36,000	72,000	µg/kg ww
Benzoic acid	0/4	0	nd	nd	4,500	160 – 12,000	µg/kg ww
Benzyl alcohol	1/4	25	85	85	320	570 – 1,200	µg/kg ww
bis(2-chloroethoxy)methane	0/4	0	nd	nd	510	40 – 2,900	µg/kg ww
bis(2-chloroethyl)ether	0/4	0	nd	nd	300	24 – 1,200	µg/kg ww
bis(2-chloroisopropyl)ether	0/4	0	nd	nd	230	80 – 580	µg/kg ww
Caffeine	0/1	0	nd	nd	4.0	8.0	µg/kg ww
Carbazole	0/4	0	nd	nd	1,100	40 – 2,900	µg/kg ww
Coprostanol	0/1	0	nd	nd	80	160	µg/kg ww
Hexachlorobenzene	1/4	25	3.3 JN	3.3 JN	6.6	7.2 – 24	µg/kg ww
Hexachlorobutadiene	0/4	0	nd	nd	220	40 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/4	0	nd	nd	27,000	40 – 72,000	µg/kg ww
Hexachloroethane	0/4	0	nd	nd	220	40 – 580	µg/kg ww
Isophorone	0/4	0	nd	nd	220	40 – 580	µg/kg ww
Nitrobenzene	0/4	0	nd	nd	220	40 – 580	µg/kg ww
N-Nitrosodimethylamine	0/4	0	nd	nd	2,200	160 – 12,000	µg/kg ww
N-Nitroso-di-n-propylamine	0/4	0	nd	nd	220	40 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/4	0	nd	nd	220	40 – 580	µg/kg ww
Pentachlorophenol	0/4	0	nd	nd	6.4	3.3 – 40	µg/kg ww
Phenol	0/4	0	nd	nd	580	160 – 1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	0/2	0	nd	nd	4.16	8.21 – 8.44	ng/kg ww
PCB-002	1/2	50	4.37 J	4.37 J	2.88	2.77	ng/kg ww
PCB-003	0/2	0	nd	nd	4.25	6.51 – 10.5	ng/kg ww
PCB-004	2/2	100	124	183	154	na	ng/kg ww
PCB-005	0/2	0	nd	nd	7.88	15.7 – 15.8	ng/kg ww
PCB-006	2/2	100	149	206	178	na	ng/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-007	2/2	100	15.3 J	19.7 J	17.5	na	ng/kg ww
PCB-008	2/2	100	339	432	386	na	ng/kg ww
PCB-009	1/2	50	18.2 J	18.2 J	12.8	14.9	ng/kg ww
PCB-010	0/2	0	nd	nd	7.35	14.4 – 15.0	ng/kg ww
PCB-011	1/2	50	40.1	40.1	28.6	34.0	ng/kg ww
PCB-012	2/2	100	70.1 C	70.6 CJ	70.4	na	ng/kg ww
PCB-013	2/2	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/2	0	nd	nd	7.70	15.3 – 15.5	ng/kg ww
PCB-015	2/2	100	679	1,220	950	na	ng/kg ww
PCB-016	2/2	100	357	676	517	na	ng/kg ww
PCB-017	2/2	100	850	1,660	1,260	na	ng/kg ww
PCB-018	2/2	100	2,360 C	4,150 C	3,260	na	ng/kg ww
PCB-019	2/2	100	82.2	93.6	87.9	na	ng/kg ww
PCB-020	2/2	100	12,600 C	22,600 C	17,600	na	ng/kg ww
PCB-021	2/2	100	1,250 C	2,070 C	1,660	na	ng/kg ww
PCB-022	2/2	100	2,190	3,140	2,670	na	ng/kg ww
PCB-023	0/2	0	nd	nd	4.09	8.10 – 8.24	ng/kg ww
PCB-024	2/2	100	16.9 J	27.9 J	22.4	na	ng/kg ww
PCB-025	2/2	100	1,540	2,340	1,940	na	ng/kg ww
PCB-026	2/2	100	4,070 C	6,880 C	5,480	na	ng/kg ww
PCB-027	2/2	100	590	960	775	na	ng/kg ww
PCB-028	2/2	100	C20	C20	nc	na	ng/kg ww
PCB-029	2/2	100	C26	C26	nc	na	ng/kg ww
PCB-030	2/2	100	C18	C18	nc	na	ng/kg ww
PCB-031	2/2	100	10,400	17,900	14,200	na	ng/kg ww
PCB-032	2/2	100	1,300	1,890	1,600	na	ng/kg ww
PCB-033	2/2	100	C21	C21	nc	na	ng/kg ww
PCB-034	2/2	100	40.2	55.8	48.0	na	ng/kg ww
PCB-035	2/2	100	13.3 J	23.2 J	18.3	na	ng/kg ww
PCB-036	0/2	0	nd	nd	3.96	7.81 – 8.01	ng/kg ww
PCB-037	2/2	100	2,160	3,650	2,910	na	ng/kg ww
PCB-038	2/2	100	13.9 J	24.2 J	19.1	na	ng/kg ww
PCB-039	2/2	100	60.7	120	90.4	na	ng/kg ww
PCB-040	2/2	100	4,660 C	8,070 C	6,370	na	ng/kg ww
PCB-041	2/2	100	C40	C40	nc	na	ng/kg ww
PCB-042	2/2	100	4,290	6,650	5,470	na	ng/kg ww
PCB-043	2/2	100	967	1,800	1,380	na	ng/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-044	2/2	100	29,600 C	41,400 C	35,500	na	ng/kg ww
PCB-045	2/2	100	680 C	1,090 C	885	na	ng/kg ww
PCB-046	2/2	100	184	262	223	na	ng/kg ww
PCB-047	2/2	100	C44	C44	nc	na	ng/kg ww
PCB-048	2/2	100	1,310	3,100	2,210	na	ng/kg ww
PCB-049	2/2	100	20,700 C	37,700 C	29,200	na	ng/kg ww
PCB-050	2/2	100	1,220 C	1,620 C	1,420	na	ng/kg ww
PCB-051	2/2	100	C45	C45	nc	na	ng/kg ww
PCB-052	2/2	100	77,600	101,000	89,300	na	ng/kg ww
PCB-053	2/2	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/2	50	4.97 J	4.97 J	3.03	2.16	ng/kg ww
PCB-055	0/2	0	nd	nd	1,640	96.8 – 6,460	ng/kg ww
PCB-056	2/2	100	5,990	8,280	7,140	na	ng/kg ww
PCB-057	1/2	50	247	247	1,730	6,420	ng/kg ww
PCB-058	1/2	50	329	329	1,710	6,180	ng/kg ww
PCB-059	2/2	100	2,160 C	3,610 C	2,890	na	ng/kg ww
PCB-060	2/2	100	5,640	9,120	7,380	na	ng/kg ww
PCB-061	2/2	100	59,400 C	83,300 C	71,400	na	ng/kg ww
PCB-062	2/2	100	C59	C59	nc	na	ng/kg ww
PCB-063	1/2	50	1,690	1,690	2,400	6,230	ng/kg ww
PCB-064	2/2	100	9,700	14,900	12,300	na	ng/kg ww
PCB-065	2/2	100	C44	C44	nc	na	ng/kg ww
PCB-066	2/2	100	31,200	54,500	42,900	na	ng/kg ww
PCB-067	1/2	50	545	545	1,720	5,790	ng/kg ww
PCB-068	1/2	50	695	695	1,900	6,190	ng/kg ww
PCB-069	2/2	100	C49	C49	nc	na	ng/kg ww
PCB-070	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-071	2/2	100	C40	C40	nc	na	ng/kg ww
PCB-072	1/2	50	1,530	1,530	2,270	6,030	ng/kg ww
PCB-073	1/2	50	391	391	196	2.30	ng/kg ww
PCB-074	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-075	2/2	100	C59	C59	nc	na	ng/kg ww
PCB-076	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-077	2/2	100	2,070	3,060	2,570	na	ng/kg ww
PCB-078	0/2	0	nd	nd	1,670	98.9 – 6,600	ng/kg ww
PCB-079	1/2	50	1,770	1,770	2,210	5,280	ng/kg ww
PCB-080	0/2	0	nd	nd	1,490	88.9 – 5,890	ng/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-081	2/2	100	91.2	148	120	na	ng/kg ww
PCB-082	2/2	100	5,020	5,050	5,040	na	ng/kg ww
PCB-083	2/2	100	111,000 C	128,000 C	120,000	na	ng/kg ww
PCB-084	2/2	100	14,600	15,300	15,000	na	ng/kg ww
PCB-085	2/2	100	21,500 C	24,100 C	22,800	na	ng/kg ww
PCB-086	2/2	100	67,300 C	70,800 C	69,100	na	ng/kg ww
PCB-087	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-088	2/2	100	14,500 C	14,500 C	14,500	na	ng/kg ww
PCB-089	2/2	100	82.9	104	93.5	na	ng/kg ww
PCB-090	2/2	100	203,000 C	215,000 C	209,000	na	ng/kg ww
PCB-091	2/2	100	C88	C88	nc	na	ng/kg ww
PCB-092	2/2	100	41,800	42,200	42,000	na	ng/kg ww
PCB-093	2/2	100	80,700 C	86,100 C	83,400	na	ng/kg ww
PCB-094	2/2	100	239	241	240	na	ng/kg ww
PCB-095	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-096	2/2	100	76.5	83.0	79.8	na	ng/kg ww
PCB-097	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-098	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-099	2/2	100	C83	C83	nc	na	ng/kg ww
PCB-100	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-101	2/2	100	C90	C90	nc	na	ng/kg ww
PCB-102	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-103	2/2	100	1,930	1,930	1,930	na	ng/kg ww
PCB-104	2/2	100	3.72 J	6.15 J	4.94	na	ng/kg ww
PCB-105	2/2	100	49,000	56,300	52,700	na	ng/kg ww
PCB-106	0/2	0	nd	nd	40.4	79.4 – 82.3	ng/kg ww
PCB-107	2/2	100	4,690 C	4,840 C	4,770	na	ng/kg ww
PCB-108	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-109	2/2	100	12,200	14,800	13,500	na	ng/kg ww
PCB-110	2/2	100	148,000 C	158,000 C	153,000	na	ng/kg ww
PCB-111	2/2	100	118	167	143	na	ng/kg ww
PCB-112	0/2	0	nd	nd	6.12	8.86 – 15.6	ng/kg ww
PCB-113	2/2	100	C90	C90	nc	na	ng/kg ww
PCB-114	2/2	100	2,840	2,990	2,920	na	ng/kg ww
PCB-115	2/2	100	C110	C110	nc	na	ng/kg ww
PCB-116	2/2	100	C85	C85	nc	na	ng/kg ww
PCB-117	2/2	100	C85	C85	nc	na	ng/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-118	2/2	100	167,000	188,000	178,000	na	ng/kg ww
PCB-119	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-120	2/2	100	349	382	366	na	ng/kg ww
PCB-121	2/2	100	25.8 J	30.0 J	27.9	na	ng/kg ww
PCB-122	2/2	100	787	1,280	1,030	na	ng/kg ww
PCB-123	2/2	100	2,280	2,400	2,340	na	ng/kg ww
PCB-124	2/2	100	C107	C107	nc	na	ng/kg ww
PCB-125	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-126	2/2	100	189	241	215	na	ng/kg ww
PCB-127	2/2	100	449	478	464	na	ng/kg ww
PCB-128	2/2	100	33,100 C	33,800 C	33,500	na	ng/kg ww
PCB-129	2/2	100	349,000 C	372,000 C	361,000	na	ng/kg ww
PCB-130	2/2	100	14,500	17,000	15,800	na	ng/kg ww
PCB-131	2/2	100	1,460	1,500	1,480	na	ng/kg ww
PCB-132	2/2	100	38,500	46,100	42,300	na	ng/kg ww
PCB-133	2/2	100	6,430	6,930	6,680	na	ng/kg ww
PCB-134	2/2	100	9,590 C	9,750 C	9,670	na	ng/kg ww
PCB-135	2/2	100	98,900 C	104,000 C	101,000	na	ng/kg ww
PCB-136	2/2	100	12,400	13,100	12,800	na	ng/kg ww
PCB-137	2/2	100	10,100	11,700	10,900	na	ng/kg ww
PCB-138	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-139	2/2	100	2,510 C	3,430 C	2,970	na	ng/kg ww
PCB-140	2/2	100	C139	C139	nc	na	ng/kg ww
PCB-141	2/2	100	47,200	52,200	49,700	na	ng/kg ww
PCB-142	0/2	0	nd	nd	35.5	68.9 – 73.2	ng/kg ww
PCB-143	2/2	100	C134	C134	nc	na	ng/kg ww
PCB-144	2/2	100	9,380	9,450	9,420	na	ng/kg ww
PCB-145	0/2	0	nd	nd	0.149	0.251 – 0.346	ng/kg ww
PCB-146	2/2	100	57,500	68,900	63,200	na	ng/kg ww
PCB-147	2/2	100	183,000 C	228,000 C	206,000	na	ng/kg ww
PCB-148	2/2	100	547	638	593	na	ng/kg ww
PCB-149	2/2	100	C147	C147	nc	na	ng/kg ww
PCB-150	2/2	100	349	367	358	na	ng/kg ww
PCB-151	2/2	100	C135	C135	nc	na	ng/kg ww
PCB-152	2/2	100	61.9	66.4	64.2	na	ng/kg ww
PCB-153	2/2	100	364,000 C	401,000 C	383,000	na	ng/kg ww
PCB-154	2/2	100	C135	C135	nc	na	ng/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-155	2/2	100	17.7 J	31.3 J	24.5	na	ng/kg ww
PCB-156	2/2	100	27,900 C	30,700 C	29,300	na	ng/kg ww
PCB-157	2/2	100	C156	C156	nc	na	ng/kg ww
PCB-158	2/2	100	27,600	28,800	28,200	na	ng/kg ww
PCB-159	2/2	100	1,500	3,130	2,320	na	ng/kg ww
PCB-160	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/2	0	nd	nd	25.0	49.9	ng/kg ww
PCB-162	2/2	100	691	845	768	na	ng/kg ww
PCB-163	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-164	2/2	100	15,100	18,200	16,700	na	ng/kg ww
PCB-165	2/2	100	171	190	181	na	ng/kg ww
PCB-166	2/2	100	C128	C128	nc	na	ng/kg ww
PCB-167	2/2	100	10,300	12,200	11,300	na	ng/kg ww
PCB-168	2/2	100	C153	C153	nc	na	ng/kg ww
PCB-169	1/2	50	8.56	8.56	5.91	6.53	ng/kg ww
PCB-170	2/2	100	71,000	77,400	74,200	na	ng/kg ww
PCB-171	2/2	100	22,200 C	24,700 C	23,500	na	ng/kg ww
PCB-172	2/2	100	12,900	15,800	14,400	na	ng/kg ww
PCB-173	2/2	100	C171	C171	nc	na	ng/kg ww
PCB-174	2/2	100	30,200	65,000	47,600	na	ng/kg ww
PCB-175	2/2	100	2,570	3,340	2,960	na	ng/kg ww
PCB-176	2/2	100	5,100	6,530	5,820	na	ng/kg ww
PCB-177	2/2	100	39,700	56,100	47,900	na	ng/kg ww
PCB-178	2/2	100	20,900	25,900	23,400	na	ng/kg ww
PCB-179	2/2	100	24,800	29,200	27,000	na	ng/kg ww
PCB-180	2/2	100	205,000 C	249,000 C	227,000	na	ng/kg ww
PCB-181	2/2	100	462	518	490	na	ng/kg ww
PCB-182	2/2	100	653	739	696	na	ng/kg ww
PCB-183	2/2	100	56,800 C	72,700 C	64,800	na	ng/kg ww
PCB-184	2/2	100	28.7 J	34.1 J	31.4	na	ng/kg ww
PCB-185	2/2	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/2	0	nd	nd	1.14	1.77 – 2.78	ng/kg ww
PCB-187	2/2	100	130,000	159,000	145,000	na	ng/kg ww
PCB-188	2/2	100	148	170	159	na	ng/kg ww
PCB-189	2/2	100	2,240	2,520	2,380	na	ng/kg ww
PCB-190	2/2	100	17,300	20,300	18,800	na	ng/kg ww
PCB-191	2/2	100	3,680	4,000	3,840	na	ng/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-192	0/2	0	nd	nd	1.32	1.96 – 3.32	ng/kg ww
PCB-193	2/2	100	C180	C180	nc	na	ng/kg ww
PCB-194	2/2	100	22,200	28,200	25,200	na	ng/kg ww
PCB-195	2/2	100	8,900	10,900	9,900	na	ng/kg ww
PCB-196	2/2	100	12,800	18,800	15,800	na	ng/kg ww
PCB-197	2/2	100	2,930 C	4,370 C	3,650	na	ng/kg ww
PCB-198	2/2	100	21,800 C	33,500 C	27,700	na	ng/kg ww
PCB-199	2/2	100	C198	C198	nc	na	ng/kg ww
PCB-200	2/2	100	C197	C197	nc	na	ng/kg ww
PCB-201	2/2	100	3,800	5,170	4,490	na	ng/kg ww
PCB-202	2/2	100	6,900	9,150	8,030	na	ng/kg ww
PCB-203	2/2	100	17,600	25,100	21,400	na	ng/kg ww
PCB-204	2/2	100	9.07 J	9.64 J	9.36	na	ng/kg ww
PCB-205	2/2	100	1,000	1,280	1,140	na	ng/kg ww
PCB-206	2/2	100	3,550	4,650	4,100	na	ng/kg ww
PCB-207	2/2	100	458	596	527	na	ng/kg ww
PCB-208	2/2	100	805	1,020	913	na	ng/kg ww
PCB-209	2/2	100	318	368	343	na	ng/kg ww
Total PCB congeners	2/2	100	3,618,000 J	3,622,000 J	3,620,000	nc	ng/kg ww
Aroclor-1016	0/7	0	nd	nd	56	40 – 150	µg/kg ww
Aroclor-1221	0/7	0	nd	nd	86	40 – 290	µg/kg ww
Aroclor-1232	0/7	0	nd	nd	56	40 – 150	µg/kg ww
Aroclor-1242	0/7	0	nd	nd	56	40 – 150	µg/kg ww
Aroclor-1248	4/7	57	120	620	300	100	µg/kg ww
Aroclor-1254	7/7	100	730	1,800	1,200	na	µg/kg ww
Aroclor-1260	7/7	100	450	3,100	1,300	na	µg/kg ww
Total PCBs	7/7	100	1,310	5,500	2,800	nc	µg/kg ww
PCB TEQ – Bird	2/2	100	141.0	203.0	172	na	ng/kg ww
PCB TEQ – Fish	2/2	100	2.510	3.060	2.79	na	ng/kg ww
PCB TEQ – Mammal	2/2	100	27.1	33.6	30.4	na	ng/kg ww
Pesticides							
2,4'-DDD	0/3	0	nd	nd	13	22 – 28	µg/kg ww
2,4'-DDE	0/3	0	nd	nd	12	15 – 32	µg/kg ww
2,4'-DDT	3/3	100	150 JN	210 JN	180	na	µg/kg ww
4,4'-DDD	2/3	67	6.1 JN	6.6 JN	6.7	15	µg/kg ww
4,4'-DDE	3/3	100	15 JN	46 JN	34	na	µg/kg ww

Table E.6.3-5, cont. Summary statistics for Dungeness crab, hepatopancreas

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
4,4'-DDT	3/3	100	120 JN	180 JN	150	na	µg/kg ww
Total DDTs	3/3	100	290 JN	440 JN	370	nc	µg/kg ww
Aldrin	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
Dieldrin	0/3	0	nd	nd	9.4	7.2 – 34	µg/kg ww
Total aldrin/dieldrin	0/3	0	nd	nd	9.4	nc	µg/kg ww
alpha-BHC	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
beta-BHC	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
gamma-BHC	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
delta-BHC	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
alpha-Chlordane	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
gamma-Chlordane	3/3	100	49 JN	73 JN	62	na	µg/kg ww
alpha-Endosulfan	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
beta-Endosulfan	0/3	0	nd	nd	5.8	8.7 – 15	µg/kg ww
Endosulfan sulfate	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
Endrin	0/3	0	nd	nd	6.1	9.4 – 15	µg/kg ww
Endrin aldehyde	0/3	0	nd	nd	5.0	7.2 – 15	µg/kg ww
Endrin ketone	0/3	0	nd	nd	7.0	13 – 15	µg/kg ww
Heptachlor	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
Heptachlor epoxide	1/3	33	12 JN	12 JN	8.3	11 – 15	µg/kg ww
Methoxychlor	0/3	0	nd	nd	5.7	7.2 – 15	µg/kg ww
Mirex	0/3	0	nd	nd	4.9	7.2 – 15	µg/kg ww
Toxaphene	0/3	0	nd	nd	1,000	1,900 – 2,200	µg/kg ww
Total chlordane	3/3	100	49 JN	73 JN	62	nc	µg/kg ww
Conventional parameters							
Total solids	7/7	100	14.20	25.53	20	na	% ww
Lipid	7/7	100	4.28 J	13	7.1	na	% ww

Table E.6.3-6. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	7/9	78	0.0026 JM	0.0051 JM	0.0041	0.010	mg/kg ww
Arsenic	9/9	100	2.707 M	11.0 M	5.2	na	mg/kg ww
Arsenic (inorganic)	2/2	100	0.022 JM	0.035 M	0.029	na	mg/kg ww
Cadmium	9/9	100	0.04 M	0.2646 M	0.15	na	mg/kg ww
Chromium	3/9	33	0.120 M	0.140 M	0.06	0.03 – 0.04	mg/kg ww
Cobalt	7/7	100	0.0754 JM	0.1515 JM	0.09721	na	mg/kg ww
Copper	9/9	100	11.5 M	24 M	16	na	mg/kg ww
Lead	9/9	100	0.020 M	0.22 JM	0.075	na	mg/kg ww
Mercury	9/9	100	0.032 M	0.097 M	0.054	na	mg/kg ww
Molybdenum	7/7	100	0.0336 M	0.0522 M	0.0395	na	mg/kg ww
Nickel	9/9	100	0.041 JM	0.16 JM	0.077	na	mg/kg ww
Selenium	7/7	100	0.15 M	0.198 M	0.17	na	mg/kg ww
Silver	9/9	100	0.1442 JM	0.29 M	0.20	na	mg/kg ww
Thallium	4/7	57	0.0030 JM	0.0030 JM	0.002	0.0015 – 0.0018	mg/kg ww
Vanadium	3/7	43	0.2 JM	0.2 JM	0.1	0.1 – 0.11	mg/kg ww
Zinc	9/9	100	24.6 M	33 M	29	na	mg/kg ww
Organometals							
Monobutyltin as ion	6/7	86	1.4 JM	1.5 M	1.3	0.8	µg/kg ww
Dibutyltin as ion	7/7	100	3.4 M	3.9 M	3.6	na	µg/kg ww
Tributyltin as ion	9/9	100	6 JM	75 M	22	na	µg/kg ww
Tetrabutyltin as ion	0/7	0	nd	nd	0.38	0.8	µg/kg ww
PAHs							
2-Chloronaphthalene	0/9	0	nd	nd	110	9 – 290	µg/kg ww
2-Methylnaphthalene	7/9	78	1.0 M	1.8 M	4.0	25	µg/kg ww
Acenaphthene	7/9	78	2.2 JM	4 M	3.2	6	µg/kg ww
Acenaphthylene	7/9	78	0.7 JM	1.2 M	1.6	9	µg/kg ww

Table E.6.3-6, cont.   Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Anthracene	7/9	78	0.41 JM	1.7 M	2.0	9	µg/kg ww
Benzo(a)anthracene	6/9	67	0.31 JM	0.8 JM	1.3	0.36 – 9	µg/kg ww
Benzo(a)pyrene	2/9	22	0.42 JM	0.63 JM	2.1	0.36 – 16	µg/kg ww
Benzo(b)fluoranthene	6/9	67	0.23 JM	0.65 JM	3.2	1.4 – 25	µg/kg ww
Benzo(g,h,i)perylene	6/9	67	0.40 JM	0.78 M	2.3	1.4 – 16	µg/kg ww
Benzo(k)fluoranthene	6/9	67	0.36 JM	0.68 JM	3.2	1.4 – 25	µg/kg ww
Total benzofluoranthenes	6/9	67	0.42 JM	0.84 JM	3.3	nc	µg/kg ww
Chrysene	6/9	67	0.33 JM	1.0 M	1.4	0.36 – 9	µg/kg ww
Dibenzo(a,h)anthracene	1/9	11	0.31 JM	0.31 JM	3.0	0.36 – 25	µg/kg ww
Dibenzofuran	7/9	78	1.0 JM	1.7 JM	2.9	16	µg/kg ww
Fluoranthene	7/9	78	0.39 JM	3.1 M	1.9	9	µg/kg ww
Fluorene	7/9	78	0.7 JM	1.6 M	1.9	9	µg/kg ww
Indeno(1,2,3-cd)pyrene	6/9	67	0.30 JM	0.73 M	2.2	1.4 – 16	µg/kg ww
Naphthalene	6/9	67	3.1 M	3.2 M	4.9	1.2 – 25	µg/kg ww
Phenanthrene	7/9	78	1.3 M	5.0 M	2.7	9	µg/kg ww
Pyrene	7/9	78	0.42 JM	2.3 M	1.7	9	µg/kg ww
Total HPAH	7/9	78	1.21 JM	9.3 JM	5.6	nc	µg/kg ww
Total LPAH	7/9	78	6.5 JM	12.9 JM	10	nc	µg/kg ww
Carcinogenic PAHs – Mammal	7/9	78	0.60 JM	2.4 JM	2.6	17	µg/kg ww
Total PAH	7/9	78	7.2 JM	22.2 JM	13	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/9	0	nd	nd	16	9 – 55	µg/kg ww
Butyl benzyl phthalate	1/9	11	1,700 M	1,700 M	390	9 – 600	µg/kg ww
Diethyl phthalate	1/9	11	190 JM	190 JM	220	16 – 600	µg/kg ww
Dimethyl phthalate	0/9	0	nd	nd	110	6 – 290	µg/kg ww
Di-n-butyl phthalate	2/9	22	340 M	700 JM	200	16 – 300	µg/kg ww
Di-n-octyl phthalate	0/9	0	nd	nd	580	9 – 1,500	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/9	0	nd	nd	110	9 – 290	µg/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2-Dichlorobenzene	0/9	0	nd	nd	110	9 – 290	µg/kg ww
1,2-Diphenylhydrazine	0/2	0	nd	nd	16	31	µg/kg ww
1,3-Dichlorobenzene	0/9	0	nd	nd	110	9 – 290	µg/kg ww
1,4-Dichlorobenzene	0/9	0	nd	nd	110	9 – 290	µg/kg ww
2,4,5-Trichlorophenol	0/9	0	nd	nd	590	60 – 1,500	µg/kg ww
2,4,6-Trichlorophenol	0/9	0	nd	nd	590	60 – 1,500	µg/kg ww
2,4-Dichlorophenol	0/9	0	nd	nd	240	16 – 600	µg/kg ww
2,4-Dimethylphenol	0/9	0	nd	nd	240	16 – 600	µg/kg ww
2,4-Dinitrophenol	0/9	0	nd	nd	2,300	31 – 6,000	µg/kg ww
2,4-Dinitrotoluene	0/9	0	nd	nd	280	6 – 1,500	µg/kg ww
2,6-Dinitrotoluene	0/9	0	nd	nd	280	6 – 1,500	µg/kg ww
2-Chlorophenol	0/9	0	nd	nd	240	31 – 600	µg/kg ww
2-Methylphenol	0/9	0	nd	nd	240	16 – 600	µg/kg ww
2-Nitroaniline	0/9	0	nd	nd	590	60 – 1,500	µg/kg ww
2-Nitrophenol	0/9	0	nd	nd	590	16 – 1,500	µg/kg ww
3,3'-Dichlorobenzidine	0/7	0	nd	nd	7,500	15,000	µg/kg ww
3-Nitroaniline	0/7	0	nd	nd	1,500	2,900	µg/kg ww
4,6-Dinitro-o-cresol	0/9	0	nd	nd	1,100	31 – 2,900	µg/kg ww
4-Bromophenyl phenyl ether	0/9	0	nd	nd	110	6 – 290	µg/kg ww
4-Chloro-3-methylphenol	0/9	0	nd	nd	590	31 – 1,500	µg/kg ww
4-Chloroaniline	0/7	0	nd	nd	750	1,500	µg/kg ww
4-Chlorophenyl phenyl ether	0/9	0	nd	nd	110	9 – 290	µg/kg ww
4-Methylphenol	0/9	0	nd	nd	240	16 – 600	µg/kg ww
4-Nitroaniline	0/7	0	nd	nd	850	1,500 – 2,900	µg/kg ww
4-Nitrophenol	0/9	0	nd	nd	1,100	31 – 2,900	µg/kg ww
Aniline	0/7	0	nd	nd	3,000	6,000	µg/kg ww
Benzidine	0/1	0	nd	nd	18,000	36,000	µg/kg ww
Benzoic acid	0/9	0	nd	nd	2,300	60 – 6,000	µg/kg ww
Benzyl alcohol	2/9	22	45 M	45 M	140	290 – 600	µg/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
bis(2-chloroethoxy)methane	0/9	0	nd	nd	180	16 – 1,500	µg/kg ww
bis(2-chloroethyl)ether	0/9	0	nd	nd	130	9 – 600	µg/kg ww
bis(2-chloroisopropyl)ether	0/9	0	nd	nd	120	31 – 290	µg/kg ww
Caffeine	0/2	0	nd	nd	1.6	3.1	µg/kg ww
Carbazole	0/9	0	nd	nd	590	16 – 1,500	µg/kg ww
Coprostanol	0/2	0	nd	nd	32	60	µg/kg ww
Hexachlorobenzene	4/9	44	5 JNM	6.0 JNM	4.2	3.6 – 9	µg/kg ww
Hexachlorobutadiene	0/9	0	nd	nd	110	16 – 290	µg/kg ww
Hexachlorocyclopentadiene	0/9	0	nd	nd	14,000	16 – 36,000	µg/kg ww
Hexachloroethane	0/9	0	nd	nd	110	16 – 290	µg/kg ww
Isophorone	0/9	0	nd	nd	110	16 – 290	µg/kg ww
Nitrobenzene	0/9	0	nd	nd	110	16 – 290	µg/kg ww
N-Nitrosodimethylamine	0/9	0	nd	nd	840	60 – 6,000	µg/kg ww
N-Nitroso-di-n-propylamine	0/9	0	nd	nd	110	16 – 290	µg/kg ww
N-Nitrosodiphenylamine	0/9	0	nd	nd	110	16 – 290	µg/kg ww
Pentachlorophenol	0/9	0	nd	nd	2.6	1.7 – 16	µg/kg ww
Phenol	0/9	0	nd	nd	300	60 – 800	µg/kg ww
Polychlorinated biphenyls							
PCB-001	2/2	100	3.48 JM	3.98 JM	3.73	na	ng/kg ww
PCB-002	2/2	100	1.30 JM	1.70 JM	1.50	na	ng/kg ww
PCB-003	2/2	100	3.12 JM	4.0 JM	3.58	na	ng/kg ww
PCB-004	2/2	100	43 M	67 M	55.4	na	ng/kg ww
PCB-005	2/2	100	5.3 JM	6.4 JM	5.87	na	ng/kg ww
PCB-006	2/2	100	58 M	91 M	74.4	na	ng/kg ww
PCB-007	2/2	100	5.5 JM	8.3 JM	6.90	na	ng/kg ww
PCB-008	2/2	100	123 M	175 M	149	na	ng/kg ww
PCB-009	2/2	100	6.6 JM	6.7 JM	6.64	na	ng/kg ww
PCB-010	2/2	100	4.8 JM	5.5 JM	5.15	na	ng/kg ww
PCB-011	2/2	100	16.6 M	17.6 M	17.1	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-012	2/2	100	29.3 CJM	32.8 CM	31.1	na	ng/kg ww
PCB-013	2/2	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/2	0	nd	nd	1.25	2.5	ng/kg ww
PCB-015	2/2	100	344 M	600 M	472	na	ng/kg ww
PCB-016	2/2	100	126 M	256 M	191	na	ng/kg ww
PCB-017	2/2	100	292 M	590 M	442	na	ng/kg ww
PCB-018	2/2	100	810 CM	1,490 CM	1,150	na	ng/kg ww
PCB-019	2/2	100	29.2 M	32.1 JM	30.7	na	ng/kg ww
PCB-020	2/2	100	5,100 CM	9,200 CM	7,160	na	ng/kg ww
PCB-021	2/2	100	510 CM	910 CM	713	na	ng/kg ww
PCB-022	2/2	100	840 M	1,290 M	1,070	na	ng/kg ww
PCB-023	0/2	0	nd	nd	0.815	1.55 – 1.71	ng/kg ww
PCB-024	2/2	100	6.9 JM	13.3 JM	10.1	na	ng/kg ww
PCB-025	2/2	100	550 M	890 M	715	na	ng/kg ww
PCB-026	2/2	100	1,400 CM	2,490 CM	1,950	na	ng/kg ww
PCB-027	2/2	100	201 M	352 M	277	na	ng/kg ww
PCB-028	2/2	100	C20	C20	nc	na	ng/kg ww
PCB-029	2/2	100	C26	C26	nc	na	ng/kg ww
PCB-030	2/2	100	C18	C18	nc	na	ng/kg ww
PCB-031	2/2	100	3,800 M	6,800 M	5,280	na	ng/kg ww
PCB-032	2/2	100	450 M	690 M	569	na	ng/kg ww
PCB-033	2/2	100	C21	C21	nc	na	ng/kg ww
PCB-034	2/2	100	14.4 JM	21.4 M	17.9	na	ng/kg ww
PCB-035	2/2	100	6.7 JM	12.0 JM	9.34	na	ng/kg ww
PCB-036	0/2	0	nd	nd	0.810	1.54 – 1.70	ng/kg ww
PCB-037	2/2	100	980 M	1,670 M	1,320	na	ng/kg ww
PCB-038	2/2	100	4.9 JM	8.5 JM	6.68	na	ng/kg ww
PCB-039	2/2	100	20.5 JM	43 M	31.8	na	ng/kg ww
PCB-040	2/2	100	1,620 CM	2,880 CM	2,250	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-041	2/2	100	C40	C40	nc	na	ng/kg ww
PCB-042	2/2	100	1,460 M	2,310 M	1,890	na	ng/kg ww
PCB-043	2/2	100	350 M	640 M	497	na	ng/kg ww
PCB-044	2/2	100	10,100 CM	14,300 CM	12,200	na	ng/kg ww
PCB-045	2/2	100	234 CM	380 CM	308	na	ng/kg ww
PCB-046	2/2	100	65 M	92 M	78.3	na	ng/kg ww
PCB-047	2/2	100	C44	C44	nc	na	ng/kg ww
PCB-048	2/2	100	470 M	1,110 M	789	na	ng/kg ww
PCB-049	2/2	100	7,000 CM	13,000 CM	9,980	na	ng/kg ww
PCB-050	2/2	100	410 CM	560 CM	488	na	ng/kg ww
PCB-051	2/2	100	C45	C45	nc	na	ng/kg ww
PCB-052	2/2	100	26,000 M	34,000 M	30,200	na	ng/kg ww
PCB-053	2/2	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/2	50	1.63 JM	1.63 JM	0.908	0.37	ng/kg ww
PCB-055	0/2	0	nd	nd	254	15.8 – 1,000	ng/kg ww
PCB-056	2/2	100	2,130 M	3,030 M	2,580	na	ng/kg ww
PCB-057	2/2	100	85 M	2,010 M	1,050	na	ng/kg ww
PCB-058	2/2	100	113 M	1,930 M	1,020	na	ng/kg ww
PCB-059	2/2	100	750 CM	1,290 CM	1,020	na	ng/kg ww
PCB-060	2/2	100	2,110 M	3,420 M	2,770	na	ng/kg ww
PCB-061	2/2	100	21,400 CM	30,400 CM	25,900	na	ng/kg ww
PCB-062	2/2	100	C59	C59	nc	na	ng/kg ww
PCB-063	2/2	100	590 M	2,050 M	1,320	na	ng/kg ww
PCB-064	2/2	100	3,360 M	5,300 M	4,310	na	ng/kg ww
PCB-065	2/2	100	C44	C44	nc	na	ng/kg ww
PCB-066	2/2	100	11,900 M	20,500 M	16,200	na	ng/kg ww
PCB-067	2/2	100	193 M	1,840 M	1,020	na	ng/kg ww
PCB-068	2/2	100	235 M	1,950 M	1,090	na	ng/kg ww
PCB-069	2/2	100	C49	C49	nc	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-070	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-071	2/2	100	C40	C40	nc	na	ng/kg ww
PCB-072	2/2	100	510 M	1,930 M	1,220	na	ng/kg ww
PCB-073	1/2	50	121 M	121 M	60.6	0.40	ng/kg ww
PCB-074	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-075	2/2	100	C59	C59	nc	na	ng/kg ww
PCB-076	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-077	2/2	100	740 M	1,100 M	922	na	ng/kg ww
PCB-078	0/2	0	nd	nd	259	16.1 – 1,020	ng/kg ww
PCB-079	2/2	100	600 M	1,700 M	1,150	na	ng/kg ww
PCB-080	0/2	0	nd	nd	232	14.5 – 910	ng/kg ww
PCB-081	2/2	100	35.7 M	54 M	44.7	na	ng/kg ww
PCB-082	2/2	100	1,750 M	1,770 M	1,760	na	ng/kg ww
PCB-083	2/2	100	37,000 CM	44,000 CM	40,500	na	ng/kg ww
PCB-084	2/2	100	5,000 M	5,200 M	5,110	na	ng/kg ww
PCB-085	2/2	100	7,200 CM	8,200 CM	7,740	na	ng/kg ww
PCB-086	2/2	100	22,900 CM	24,400 CM	23,700	na	ng/kg ww
PCB-087	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-088	2/2	100	4,900 CM	5,000 CM	4,910	na	ng/kg ww
PCB-089	2/2	100	29.1 M	36 M	32.6	na	ng/kg ww
PCB-090	2/2	100	69,000 CM	73,000 CM	70,700	na	ng/kg ww
PCB-091	2/2	100	C88	C88	nc	na	ng/kg ww
PCB-092	2/2	100	13,900 M	14,200 M	14,100	na	ng/kg ww
PCB-093	2/2	100	27,400 CM	28,900 CM	28,200	na	ng/kg ww
PCB-094	2/2	100	81 M	84 M	82.4	na	ng/kg ww
PCB-095	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-096	2/2	100	25.9 JM	28.2 JM	27.1	na	ng/kg ww
PCB-097	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-098	2/2	100	C93	C93	nc	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-099	2/2	100	C83	C83	nc	na	ng/kg ww
PCB-100	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-101	2/2	100	C90	C90	nc	na	ng/kg ww
PCB-102	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-103	2/2	100	640 M	660 M	650	na	ng/kg ww
PCB-104	2/2	100	1.31 JM	2.14 JM	1.73	na	ng/kg ww
PCB-105	2/2	100	16,700 M	19,300 M	18,000	na	ng/kg ww
PCB-106	0/2	0	nd	nd	6.78	13.4 – 13.7	ng/kg ww
PCB-107	2/2	100	1,590 CM	1,620 CM	1,610	na	ng/kg ww
PCB-108	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-109	2/2	100	4,100 M	5,000 M	4,540	na	ng/kg ww
PCB-110	2/2	100	50,000 CM	53,000 CM	51,700	na	ng/kg ww
PCB-111	2/2	100	42 M	56 M	48.7	na	ng/kg ww
PCB-112	0/2	0	nd	nd	1.41	1.94 – 3.7	ng/kg ww
PCB-113	2/2	100	C90	C90	nc	na	ng/kg ww
PCB-114	2/2	100	1,000 M	1,070 M	1,030	na	ng/kg ww
PCB-115	2/2	100	C110	C110	nc	na	ng/kg ww
PCB-116	2/2	100	C85	C85	nc	na	ng/kg ww
PCB-117	2/2	100	C85	C85	nc	na	ng/kg ww
PCB-118	2/2	100	57,000 M	64,000 M	60,200	na	ng/kg ww
PCB-119	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-120	2/2	100	117 M	126 M	122	na	ng/kg ww
PCB-121	2/2	100	9.1 JM	11.8 JM	10.5	na	ng/kg ww
PCB-122	2/2	100	312 M	460 M	385	na	ng/kg ww
PCB-123	2/2	100	760 M	820 M	794	na	ng/kg ww
PCB-124	2/2	100	C107	C107	nc	na	ng/kg ww
PCB-125	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-126	2/2	100	66 M	83 M	74.5	na	ng/kg ww
PCB-127	2/2	100	151 M	164 M	158	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-128	2/2	100	11,200 CM	11,400 CM	11,300	na	ng/kg ww
PCB-129	2/2	100	118,000 CM	124,000 CM	121,000	na	ng/kg ww
PCB-130	2/2	100	4,900 M	5,700 M	5,280	na	ng/kg ww
PCB-131	2/2	100	510 M	520 M	513	na	ng/kg ww
PCB-132	2/2	100	13,000 M	15,700 M	14,400	na	ng/kg ww
PCB-133	2/2	100	2,150 M	2,300 M	2,230	na	ng/kg ww
PCB-134	2/2	100	3,270 CM	3,300 CM	3,290	na	ng/kg ww
PCB-135	2/2	100	32,800 CM	35,000 CM	34,000	na	ng/kg ww
PCB-136	2/2	100	4,200 M	4,400 M	4,340	na	ng/kg ww
PCB-137	2/2	100	3,400 M	3,900 M	3,650	na	ng/kg ww
PCB-138	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-139	2/2	100	850 CM	1,170 CM	1,010	na	ng/kg ww
PCB-140	2/2	100	C139	C139	nc	na	ng/kg ww
PCB-141	2/2	100	15,700 M	17,700 M	16,700	na	ng/kg ww
PCB-142	0/2	0	nd	nd	6.65	13.3	ng/kg ww
PCB-143	2/2	100	C134	C134	nc	na	ng/kg ww
PCB-144	2/2	100	3,140 M	3,190 M	3,170	na	ng/kg ww
PCB-145	0/2	0	nd	nd	0.0555	0.103 – 0.119	ng/kg ww
PCB-146	2/2	100	19,400 M	22,800 M	21,100	na	ng/kg ww
PCB-147	2/2	100	62,000 CM	78,000 CM	70,300	na	ng/kg ww
PCB-148	2/2	100	183 M	212 M	198	na	ng/kg ww
PCB-149	2/2	100	C147	C147	nc	na	ng/kg ww
PCB-150	2/2	100	117 M	124 M	121	na	ng/kg ww
PCB-151	2/2	100	C135	C135	nc	na	ng/kg ww
PCB-152	2/2	100	21.6 JM	22.5 JM	22.1	na	ng/kg ww
PCB-153	2/2	100	123,000 CM	133,000 CM	128,000	na	ng/kg ww
PCB-154	2/2	100	C135	C135	nc	na	ng/kg ww
PCB-155	2/2	100	6.0 JM	10.5 JM	8.27	na	ng/kg ww
PCB-156	2/2	100	9,300 CM	10,300 CM	9,820	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-157	2/2	100	C156	C156	nc	na	ng/kg ww
PCB-158	2/2	100	9,400 M	9,700 M	9,520	na	ng/kg ww
PCB-159	2/2	100	510 M	1,060 M	783	na	ng/kg ww
PCB-160	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/2	0	nd	nd	4.69	9.2 – 9.6	ng/kg ww
PCB-162	2/2	100	236 M	277 M	257	na	ng/kg ww
PCB-163	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-164	2/2	100	5,100 M	6,200 M	5,620	na	ng/kg ww
PCB-165	2/2	100	56 M	63 M	59.8	na	ng/kg ww
PCB-166	2/2	100	C128	C128	nc	na	ng/kg ww
PCB-167	2/2	100	3,500 M	4,100 M	3,770	na	ng/kg ww
PCB-168	2/2	100	C153	C153	nc	na	ng/kg ww
PCB-169	2/2	100	2.35 M	2.92 M	2.64	na	ng/kg ww
PCB-170	2/2	100	23,400 M	25,800 M	24,600	na	ng/kg ww
PCB-171	2/2	100	7,400 CM	8,400 CM	7,900	na	ng/kg ww
PCB-172	2/2	100	4,200 M	5,200 M	4,740	na	ng/kg ww
PCB-173	2/2	100	C171	C171	nc	na	ng/kg ww
PCB-174	2/2	100	10,200 M	21,900 M	16,100	na	ng/kg ww
PCB-175	2/2	100	860 M	1,120 M	988	na	ng/kg ww
PCB-176	2/2	100	1,750 M	2,270 M	2,010	na	ng/kg ww
PCB-177	2/2	100	13,200 M	18,800 M	16,000	na	ng/kg ww
PCB-178	2/2	100	6,900 M	8,700 M	7,790	na	ng/kg ww
PCB-179	2/2	100	8,300 M	10,000 M	9,140	na	ng/kg ww
PCB-180	2/2	100	67,000 CM	83,000 CM	75,000	na	ng/kg ww
PCB-181	2/2	100	154 M	170 M	162	na	ng/kg ww
PCB-182	2/2	100	203 M	230 M	217	na	ng/kg ww
PCB-183	2/2	100	18,900 CM	24,400 CM	21,700	na	ng/kg ww
PCB-184	2/2	100	9.8 JM	12.0 JM	10.9	na	ng/kg ww
PCB-185	2/2	100	C183	C183	nc	na	ng/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-186	0/2	0	nd	nd	0.243	0.34 – 0.64	ng/kg ww
PCB-187	2/2	100	43,000 M	53,000 M	48,000	na	ng/kg ww
PCB-188	2/2	100	50 M	57 M	53.5	na	ng/kg ww
PCB-189	2/2	100	740 M	840 M	792	na	ng/kg ww
PCB-190	2/2	100	5,700 M	6,800 M	6,250	na	ng/kg ww
PCB-191	2/2	100	1,220 M	1,340 M	1,280	na	ng/kg ww
PCB-192	0/2	0	nd	nd	0.284	0.38 – 0.76	ng/kg ww
PCB-193	2/2	100	C180	C180	nc	na	ng/kg ww
PCB-194	2/2	100	7,300 M	9,400 M	8,320	na	ng/kg ww
PCB-195	2/2	100	2,930 M	3,600 M	3,280	na	ng/kg ww
PCB-196	2/2	100	4,300 M	6,300 M	5,270	na	ng/kg ww
PCB-197	2/2	100	970 CM	1,470 CM	1,220	na	ng/kg ww
PCB-198	2/2	100	7,200 CM	11,100 CM	9,140	na	ng/kg ww
PCB-199	2/2	100	C198	C198	nc	na	ng/kg ww
PCB-200	2/2	100	C197	C197	nc	na	ng/kg ww
PCB-201	2/2	100	1,280 M	1,760 M	1,520	na	ng/kg ww
PCB-202	2/2	100	2,330 M	3,100 M	2,720	na	ng/kg ww
PCB-203	2/2	100	5,800 M	8,300 M	7,060	na	ng/kg ww
PCB-204	2/2	100	2.97 JM	3.25 JM	3.11	na	ng/kg ww
PCB-205	2/2	100	330 M	430 M	380	na	ng/kg ww
PCB-206	2/2	100	1,180 M	1,560 M	1,370	na	ng/kg ww
PCB-207	2/2	100	154 M	203 M	179	na	ng/kg ww
PCB-208	2/2	100	272 M	350 M	310	na	ng/kg ww
PCB-209	2/2	100	107 M	129 M	118	na	ng/kg ww
Total PCB congeners	2/2	100	1,224,000 JM	1,226,000 JM	1,225,000	nc	ng/kg ww
Aroclor-1016	0/12	0	nd	nd	12	8 – 30	µg/kg ww
Aroclor-1221	0/12	0	nd	nd	19	8 – 60	µg/kg ww
Aroclor-1232	0/12	0	nd	nd	12	8 – 30	µg/kg ww
Aroclor-1242	0/12	0	nd	nd	12	8 – 30	µg/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Aroclor-1248	9/12	75	40 M	240 M	140	20	µg/kg ww
Aroclor-1254	12/12	100	240 M	600 JM	480	na	µg/kg ww
Aroclor-1260	12/12	100	170 M	1,000 M	490	na	µg/kg ww
Total PCBs	12/12	100	420 M	1,900 JM	1,100	nc	µg/kg ww
PCB TEQ – Bird	2/2	100	50.3 M	72.0 M	61.2	na	ng/kg ww
PCB TEQ – Fish	2/2	100	0.861 M	1.050 M	0.956	na	ng/kg ww
PCB TEQ – Mammal	2/2	100	9.4 M	11.6 M	10.5	na	ng/kg ww
Pesticides							
2,4'-DDD	1/7	14	11 JNM	11 JNM	4.2	4 – 7	µg/kg ww
2,4'-DDE	0/7	0	nd	nd	3.2	3 – 7	µg/kg ww
2,4'-DDT	7/7	100	50 JNM	70 JNM	66	na	µg/kg ww
4,4'-DDD	6/7	86	6.9 JNM	7.0 JNM	6.2	3	µg/kg ww
4,4'-DDE	7/7	100	6 JNM	16 JNM	14	na	µg/kg ww
4,4'-DDT	7/7	100	40 JNM	60 JNM	56	na	µg/kg ww
Total DDTs	7/7	100	100 JNM	150 JNM	140	nc	µg/kg ww
Aldrin	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
Dieldrin	0/7	0	nd	nd	2.7	3.6 – 8	µg/kg ww
Total aldrin/dieldrin	0/7	0	nd	nd	2.7	nc	µg/kg ww
alpha-BHC	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
beta-BHC	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
gamma-BHC	1/7	14	7 JNM	7 JNM	2.6	3.6	µg/kg ww
delta-BHC	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
alpha-Chlordane	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
gamma-Chlordane	7/7	100	17 JNM	26 JNM	23	na	µg/kg ww
alpha-Endosulfan	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
beta-Endosulfan	0/7	0	nd	nd	1.9	3 – 4	µg/kg ww
Endosulfan sulfate	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
Endrin	0/7	0	nd	nd	2.0	3 – 4	µg/kg ww
Endrin aldehyde	0/7	0	nd	nd	1.8	3 – 3.7	µg/kg ww

Table E.6.3-6, cont. Summary statistics for Dungeness crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Endrin ketone	0/7	0	nd	nd	2.2	3 – 5	µg/kg ww
Heptachlor	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
Heptachlor epoxide	6/7	86	5 JNM	6 JNM	4.6	4	µg/kg ww
Methoxychlor	0/7	0	nd	nd	1.9	3 – 4	µg/kg ww
Mirex	0/7	0	nd	nd	1.7	3 – 3.6	µg/kg ww
Toxaphene	0/7	0	nd	nd	220	400 – 500	µg/kg ww
Total chlordane	7/7	100	17 JNM	26 JNM	23	nc	µg/kg ww
Conventional parameters							
Total solids	12/12	100	15.23 M	22.1 M	18	na	% ww
Lipid	12/12	100	1.43 JM	6 M	2.6	na	% ww

Note: Data from hepatopancreas composite samples were mathematically combined with data from composite samples of edible meat to form composite samples of edible meat plus hepatopancreas. Whole-body (i.e., edible meat plus hepatopancreas) crab concentrations were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weight of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

Table E.6.3-7. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	2/7	29	0.0012 J	0.0015 J	0.0044	0.0104 – 0.0122	mg/kg ww
Arsenic	7/7	100	3.965	6.890	5.255	na	mg/kg ww
Arsenic (inorganic)	6/7	86	0.003	0.006 J	0.004	0.003	mg/kg ww
Cadmium	1/7	14	0.0013 J	0.0013 J	0.0021	0.0042 – 0.0049	mg/kg ww
Chromium	0/7	0	nd	nd	0.056	0.10 – 0.12	mg/kg ww
Cobalt	7/7	100	0.0037 J	0.0048	0.0042	na	mg/kg ww
Copper	7/7	100	0.386	1.390	1.12	na	mg/kg ww
Lead	7/7	100	0.0119	0.137	0.092	na	mg/kg ww
Mercury	7/7	100	0.013	0.025	0.017	na	mg/kg ww
Molybdenum	7/7	100	0.0046 J	0.0065 J	0.0052	na	mg/kg ww
Nickel	7/7	100	0.015 J	0.079 J	0.032	na	mg/kg ww
Selenium	7/7	100	0.15	0.210	0.2	na	mg/kg ww
Silver	0/7	0	nd	nd	0.0023	0.0042 – 0.0049	mg/kg ww
Thallium	0/7	0	nd	nd	0.0023	0.0042 – 0.0049	mg/kg ww
Vanadium	0/7	0	nd	nd	0.1	0.2 – 0.25	mg/kg ww
Zinc	7/7	100	7.35	8.89	7.77	na	mg/kg ww
Organometals							
Monobutyltin as ion	0/7	0	nd	nd	0.75	1.5	µg/kg ww
Dibutyltin as ion	3/7	43	0.55 J	0.70 J	0.69	1.5	µg/kg ww
Tributyltin as ion	6/7	86	1.2 J	2.2	1.5	1.5	µg/kg ww
Tetrabutyltin as ion	0/7	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/7	0	nd	nd	270	290 – 580	µg/kg ww
2-Methylnaphthalene	7/7	100	0.98 J	2.8	1.9	na	µg/kg ww
Acenaphthene	7/7	100	2.1	6.6	3.9	na	µg/kg ww
Acenaphthylene	7/7	100	0.27 J	1.0	0.68	na	µg/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Anthracene	6/7	86	0.40 J	1.7	1.1	0.41	µg/kg ww
Benzo(a)anthracene	4/7	57	0.17 J	0.36 J	0.25	0.50	µg/kg ww
Benzo(a)pyrene	1/7	14	0.18 J	0.18 J	0.26	0.50 – 0.72	µg/kg ww
Benzo(b)fluoranthene	2/7	29	0.16	0.19 J	0.23	0.50	µg/kg ww
Benzo(g,h,i)perylene	2/7	29	0.20 J	0.21	0.24	0.50	µg/kg ww
Benzo(k)fluoranthene	2/7	29	0.18	0.22 J	0.24	0.50	µg/kg ww
Total benzofluoranthenes	2/7	29	0.34	0.41 J	0.29	nc	µg/kg ww
Chrysene	4/7	57	0.12 J	0.33 J	0.24	0.50	µg/kg ww
Dibenzo(a,h)anthracene	1/7	14	0.24	0.24	0.25	0.50	µg/kg ww
Dibenzofuran	7/7	100	0.96	2.9	1.8	na	µg/kg ww
Fluoranthene	3/7	43	0.82	1.7	0.94	0.87 – 1.4	µg/kg ww
Fluorene	7/7	100	0.72	2.1	1.3	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	2/7	29	0.19 J	0.21	0.24	0.50	µg/kg ww
Naphthalene	7/7	100	1.7	4.1	3.1	na	µg/kg ww
Phenanthrene	3/7	43	0.82	2.4	1.1	0.89 – 1.6	µg/kg ww
Pyrene	2/7	29	0.33 J	0.64 J	0.35	0.36 – 0.91	µg/kg ww
Total HPAH	4/7	57	0.69 J	3.8 J	1.5	nc	µg/kg ww
Total LPAH	7/7	100	5.2 J	17.1	11	na	µg/kg ww
Carcinogenic PAHs – Mammal	4/7	57	0.37 J	0.53	0.35	0.45	µg/kg ww
Total PAH	7/7	100	5.2 J	19.0 J	12	na	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	2/7	29	1,100	1,300 J	370	67 – 130	µg/kg ww
Butyl benzyl phthalate	0/7	0	nd	nd	560	570 – 1,200	µg/kg ww
Diethyl phthalate	1/7	14	120 J	120 J	530	1,200	µg/kg ww
Dimethyl phthalate	0/7	0	nd	nd	270	290 – 580	µg/kg ww
Di-n-butyl phthalate	0/7	0	nd	nd	250	160 – 1,200	µg/kg ww
Di-n-octyl phthalate	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/7	0	nd	nd	270	290 – 580	µg/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
1,2-Dichlorobenzene	0/7	0	nd	nd	270	290 – 580	µg/kg ww
1,3-Dichlorobenzene	0/7	0	nd	nd	270	290 – 580	µg/kg ww
1,4-Dichlorobenzene	0/7	0	nd	nd	270	290 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
2,4,6-Trichlorophenol	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
2,4-Dichlorophenol	0/7	0	nd	nd	560	570 – 1,200	µg/kg ww
2,4-Dimethylphenol	0/7	0	nd	nd	560	570 – 1,200	µg/kg ww
2,4-Dinitrophenol	0/7	0	nd	nd	5,600	5,700 – 12,000	µg/kg ww
2,4-Dinitrotoluene	0/7	0	nd	nd	620	1,200 – 1,500	µg/kg ww
2,6-Dinitrotoluene	0/7	0	nd	nd	620	1,200 – 1,500	µg/kg ww
2-Chlorophenol	0/7	0	nd	nd	560	570 – 1,200	µg/kg ww
2-Methylphenol	0/7	0	nd	nd	560	570 – 1,200	µg/kg ww
2-Nitroaniline	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
2-Nitrophenol	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/7	0	nd	nd	14,000	15,000 – 29,000	µg/kg ww
3-Nitroaniline	0/7	0	nd	nd	2,700	2,900 – 5,800	µg/kg ww
4,6-Dinitro-o-cresol	0/7	0	nd	nd	2,700	2,900 – 5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/7	0	nd	nd	270	290 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
4-Chloroaniline	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/7	0	nd	nd	270	290 – 580	µg/kg ww
4-Methylphenol	0/7	0	nd	nd	560	570 – 1,200	µg/kg ww
4-Nitroaniline	0/7	0	nd	nd	1,500	2,900	µg/kg ww
4-Nitrophenol	0/7	0	nd	nd	2,700	2,900 – 5,800	µg/kg ww
Aniline	0/7	0	nd	nd	5,600	5,700 – 12,000	µg/kg ww
Benzidine	0/1	0	nd	nd	25,000	50,000	µg/kg ww
Benzoic acid	6/7	86	5,300 J	6,500 J	5,600	5,700	µg/kg ww
Benzyl alcohol	0/7	0	nd	nd	290	570 – 580	µg/kg ww
bis(2-chloroethoxy)methane	0/7	0	nd	nd	350	570 – 1,500	µg/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
bis(2-chloroethyl)ether	0/7	0	nd	nd	290	570 – 580	µg/kg ww
bis(2-chloroisopropyl)ether	0/7	0	nd	nd	270	290 – 580	µg/kg ww
Carbazole	0/7	0	nd	nd	1,400	1,500 – 2,900	µg/kg ww
Hexachlorobenzene	1/7	14	1.1 JN	1.1 JN	3.2	7.2	µg/kg ww
Hexachlorobutadiene	0/7	0	nd	nd	270	290 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/7	0	nd	nd	34,000	50,000 – 72,000	µg/kg ww
Hexachloroethane	0/7	0	nd	nd	270	290 – 580	µg/kg ww
Isophorone	0/7	0	nd	nd	270	290 – 580	µg/kg ww
Nitrobenzene	0/7	0	nd	nd	270	290 – 580	µg/kg ww
N-Nitrosodimethylamine	0/7	0	nd	nd	1,700	2,900 – 5,700	µg/kg ww
N-Nitroso-di-n-propylamine	0/7	0	nd	nd	270	290 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/7	0	nd	nd	270	290 – 580	µg/kg ww
Pentachlorophenol	0/7	0	nd	nd	620	3.3 – 5,800	µg/kg ww
Phenol	0/7	0	nd	nd	690	710 – 1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	4/6	67	2.84	13.5 J	6.38	9.38 – 9.45	ng/kg ww
PCB-002	2/7	29	0.263 J	3.67 J	1.82	0.269 – 8.43	ng/kg ww
PCB-003	2/7	29	0.503 J	6.32 J	3.57	0.466 – 20.5	ng/kg ww
PCB-004	7/7	100	84.7	297	179	na	ng/kg ww
PCB-005	3/7	43	2.58	6.79 J	4.36	7.14 – 14.1	ng/kg ww
PCB-006	7/7	100	67.6	240	155	na	ng/kg ww
PCB-007	7/7	100	6.46	34.8 J	18.2	na	ng/kg ww
PCB-008	7/7	100	166	740	433	na	ng/kg ww
PCB-009	7/7	100	10.8	37.7	25.4	na	ng/kg ww
PCB-010	6/7	86	4.18	15.2 J	9.66	13.6	ng/kg ww
PCB-011	1/7	14	1.51 J	1.51 J	3.49	2.05 – 14.6	ng/kg ww
PCB-012	6/7	86	4.05 CJ	15.6 CJ	9.01	7.99	ng/kg ww
PCB-013	6/7	86	C12	C12	nc	0	ng/kg ww
PCB-014	0/7	0	nd	nd	2.98	0.0617 – 13.6	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-015	7/7	100	15.3 J	88.5	51.7	na	ng/kg ww
PCB-016	7/7	100	228	1,150	727	na	ng/kg ww
PCB-017	7/7	100	594	2,970	1,780	na	ng/kg ww
PCB-018	7/7	100	1,090 C	4,770 C	3,110	na	ng/kg ww
PCB-019	7/7	100	158	624	364	na	ng/kg ww
PCB-020	7/7	100	3,590 C	14,100 C	9,400	na	ng/kg ww
PCB-021	7/7	100	769 C	4,940 C	2,350	na	ng/kg ww
PCB-022	7/7	100	720	2,860	1,840	na	ng/kg ww
PCB-023	3/7	43	2.06	10.9 J	4.91	6.84 – 11.1	ng/kg ww
PCB-024	7/7	100	13.5	78.2	46.9	na	ng/kg ww
PCB-025	7/7	100	391	1,080	706	na	ng/kg ww
PCB-026	7/7	100	1,090 C	3,130 C	1,970	na	ng/kg ww
PCB-027	7/7	100	182	638	453	na	ng/kg ww
PCB-028	7/7	100	C20	C20	nc	na	ng/kg ww
PCB-029	7/7	100	C26	C26	nc	na	ng/kg ww
PCB-030	7/7	100	C18	C18	nc	na	ng/kg ww
PCB-031	7/7	100	2,090	7,710	5,080	na	ng/kg ww
PCB-032	6/7	86	527	2,660	1,280	8.66	ng/kg ww
PCB-033	7/7	100	C21	C21	nc	na	ng/kg ww
PCB-034	7/7	100	20.7	78.2	49.1	na	ng/kg ww
PCB-035	0/7	0	nd	nd	2.87	0.357 – 11.7	ng/kg ww
PCB-036	0/7	0	nd	nd	2.47	0.300 – 10.3	ng/kg ww
PCB-037	7/7	100	103	509	288	na	ng/kg ww
PCB-038	6/7	86	7.88	47.7	21.4	8.27	ng/kg ww
PCB-039	7/7	100	22.0	136	71.4	na	ng/kg ww
PCB-040	7/7	100	2,400 C	10,300 C	6,320	na	ng/kg ww
PCB-041	7/7	100	C40	C40	nc	na	ng/kg ww
PCB-042	7/7	100	1,430	7,020	4,350	na	ng/kg ww
PCB-043	7/7	100	224	1,520	848	na	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-044	7/7	100	6,940 C	22,100 C	15,200	na	ng/kg ww
PCB-045	7/7	100	716 C	3,320 C	2,110	na	ng/kg ww
PCB-046	7/7	100	134	613	397	na	ng/kg ww
PCB-047	7/7	100	C44	C44	nc	na	ng/kg ww
PCB-048	7/7	100	764	4,520	2,410	na	ng/kg ww
PCB-049	7/7	100	8,140 C	26,500 C	16,700	na	ng/kg ww
PCB-050	7/7	100	803 C	2,960 C	2,040	na	ng/kg ww
PCB-051	7/7	100	C45	C45	nc	na	ng/kg ww
PCB-052	7/7	100	13,300	38,700	27,100	na	ng/kg ww
PCB-053	7/7	100	C50	C50	nc	na	ng/kg ww
PCB-054	7/7	100	13.8	44.6	31.1	na	ng/kg ww
PCB-055	6/7	86	75.4	1,050	567	2.16	ng/kg ww
PCB-056	6/7	86	1,440	5,000	2,850	2.23	ng/kg ww
PCB-057	7/7	100	80.7	196	129	na	ng/kg ww
PCB-058	7/7	100	103	613	268	na	ng/kg ww
PCB-059	7/7	100	778 C	3,200 C	2,000	na	ng/kg ww
PCB-060	7/7	100	1,380	6,360	3,860	na	ng/kg ww
PCB-061	7/7	100	13,100 C	45,200 C	28,400	na	ng/kg ww
PCB-062	7/7	100	C59	C59	nc	na	ng/kg ww
PCB-063	7/7	100	382	1,490	890	na	ng/kg ww
PCB-064	7/7	100	2,930	11,900	7,430	na	ng/kg ww
PCB-065	7/7	100	C44	C44	nc	na	ng/kg ww
PCB-066	7/7	100	8,850	28,400	19,500	na	ng/kg ww
PCB-067	7/7	100	166	518	342	na	ng/kg ww
PCB-068	7/7	100	93.4	250	168	na	ng/kg ww
PCB-069	7/7	100	C49	C49	nc	na	ng/kg ww
PCB-070	7/7	100	C61	C61	nc	na	ng/kg ww
PCB-071	7/7	100	C40	C40	nc	na	ng/kg ww
PCB-072	7/7	100	205	548	361	na	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-073	5/7	71	197	375	199	0.0462 – 0.0472	ng/kg ww
PCB-074	7/7	100	C61	C61	nc	na	ng/kg ww
PCB-075	7/7	100	C59	C59	nc	na	ng/kg ww
PCB-076	7/7	100	C61	C61	nc	na	ng/kg ww
PCB-077	7/7	100	240	1,030	634	na	ng/kg ww
PCB-078	0/7	0	nd	nd	10.8	2.27 – 46.0	ng/kg ww
PCB-079	7/7	100	151	608	404	na	ng/kg ww
PCB-080	0/7	0	nd	nd	9.47	2.06 – 39.4	ng/kg ww
PCB-081	7/7	100	15.6 J	85.6	46.4	na	ng/kg ww
PCB-082	7/7	100	1,500	4,740	3,210	na	ng/kg ww
PCB-083	7/7	100	16,900 C	50,900 C	34,100	na	ng/kg ww
PCB-084	7/7	100	3,350	8,750	6,410	na	ng/kg ww
PCB-085	7/7	100	4,120 C	12,700 C	8,370	na	ng/kg ww
PCB-086	7/7	100	14,800 C	39,700 C	27,900	na	ng/kg ww
PCB-087	7/7	100	C86	C86	nc	na	ng/kg ww
PCB-088	7/7	100	3,510 C	9,110 C	6,480	na	ng/kg ww
PCB-089	7/7	100	130	416	281	na	ng/kg ww
PCB-090	7/7	100	31,000 C	88,700 C	59,400	na	ng/kg ww
PCB-091	7/7	100	C88	C88	nc	na	ng/kg ww
PCB-092	7/7	100	5,780	17,500	11,300	na	ng/kg ww
PCB-093	7/7	100	17,000 C	41,800 C	31,300	na	ng/kg ww
PCB-094	7/7	100	76.9	205	146	na	ng/kg ww
PCB-095	7/7	100	C93	C93	nc	na	ng/kg ww
PCB-096	7/7	100	85.0	265	189	na	ng/kg ww
PCB-097	7/7	100	C86	C86	nc	na	ng/kg ww
PCB-098	7/7	100	C93	C93	nc	na	ng/kg ww
PCB-099	7/7	100	C83	C83	nc	na	ng/kg ww
PCB-100	7/7	100	C93	C93	nc	na	ng/kg ww
PCB-101	7/7	100	C90	C90	nc	na	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-102	7/7	100	C93	C93	nc	na	ng/kg ww
PCB-103	7/7	100	453	1,010	766	na	ng/kg ww
PCB-104	7/7	100	4.44	11.4 J	8.85	na	ng/kg ww
PCB-105	7/7	100	6,890	19,200	14,200	na	ng/kg ww
PCB-106	0/7	0	nd	nd	6.62	2.30 – 28.8	ng/kg ww
PCB-107	7/7	100	723 C	2,220 C	1,450	na	ng/kg ww
PCB-108	7/7	100	C86	C86	nc	na	ng/kg ww
PCB-109	7/7	100	2,040	5,030	3,480	na	ng/kg ww
PCB-110	7/7	100	27,600 C	68,200 C	48,500	na	ng/kg ww
PCB-111	7/7	100	19.0 J	39.3	32.5	na	ng/kg ww
PCB-112	2/7	29	46.5	93.6	22.9	5.56 – 10.7	ng/kg ww
PCB-113	7/7	100	C90	C90	nc	na	ng/kg ww
PCB-114	7/7	100	450	1,260	932	na	ng/kg ww
PCB-115	7/7	100	C110	C110	nc	na	ng/kg ww
PCB-116	7/7	100	C85	C85	nc	na	ng/kg ww
PCB-117	7/7	100	C85	C85	nc	na	ng/kg ww
PCB-118	7/7	100	23,200	61,100	44,800	na	ng/kg ww
PCB-119	7/7	100	C86	C86	nc	na	ng/kg ww
PCB-120	7/7	100	165	325	245	na	ng/kg ww
PCB-121	6/7	86	12.8	31.0	18.0	5.85	ng/kg ww
PCB-122	7/7	100	93.9	435	250	na	ng/kg ww
PCB-123	7/7	100	270	1,130	742	na	ng/kg ww
PCB-124	7/7	100	C107	C107	nc	na	ng/kg ww
PCB-125	7/7	100	C86	C86	nc	na	ng/kg ww
PCB-126	7/7	100	29.2	110	73.7	na	ng/kg ww
PCB-127	7/7	100	34.8	213	117	na	ng/kg ww
PCB-128	7/7	100	4,010 C	10,800 C	7,740	na	ng/kg ww
PCB-129	7/7	100	41,700 C	109,000 C	77,100	na	ng/kg ww
PCB-130	7/7	100	2,090	4,560	3,670	na	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-131	7/7	100	270	778	547	na	ng/kg ww
PCB-132	7/7	100	9,170	20,900	16,100	na	ng/kg ww
PCB-133	7/7	100	750	1,470	1,210	na	ng/kg ww
PCB-134	7/7	100	1,440 C	4,010 C	2,830	na	ng/kg ww
PCB-135	7/7	100	12,900 C	31,300 C	23,400	na	ng/kg ww
PCB-136	7/7	100	3,010	9,490	6,410	na	ng/kg ww
PCB-137	7/7	100	1,450	4,270	2,750	na	ng/kg ww
PCB-138	7/7	100	C129	C129	nc	na	ng/kg ww
PCB-139	7/7	100	651 C	1,820 C	1,290	na	ng/kg ww
PCB-140	7/7	100	C139	C139	nc	na	ng/kg ww
PCB-141	7/7	100	5,810	13,900	10,800	na	ng/kg ww
PCB-142	0/7	0	nd	nd	19.8	2.41 – 84.3	ng/kg ww
PCB-143	7/7	100	C134	C134	nc	na	ng/kg ww
PCB-144	7/7	100	1,510	4,590	3,290	na	ng/kg ww
PCB-145	7/7	100	7.65 J	35.5	19.9	na	ng/kg ww
PCB-146	7/7	100	7,530	15,300	12,100	na	ng/kg ww
PCB-147	7/7	100	30,700 C	65,500 C	52,700	na	ng/kg ww
PCB-148	7/7	100	104	238	166	na	ng/kg ww
PCB-149	7/7	100	C147	C147	nc	na	ng/kg ww
PCB-150	7/7	100	64.4	175	129	na	ng/kg ww
PCB-151	7/7	100	C135	C135	nc	na	ng/kg ww
PCB-152	7/7	100	15.6	50.0	34.8	na	ng/kg ww
PCB-153	7/7	100	47,000 C	103,000 C	81,000	na	ng/kg ww
PCB-154	7/7	100	C135	C135	nc	na	ng/kg ww
PCB-155	7/7	100	4.49	12.3 J	9.03	na	ng/kg ww
PCB-156	7/7	100	3,130 C	8,750 C	6,350	na	ng/kg ww
PCB-157	7/7	100	C156	C156	nc	na	ng/kg ww
PCB-158	7/7	100	3,400	9,470	6,530	na	ng/kg ww
PCB-159	7/7	100	203	685	494	na	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-160	7/7	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/7	0	nd	nd	14.1	1.80 – 64.8	ng/kg ww
PCB-162	7/7	100	80.8	248	160	na	ng/kg ww
PCB-163	7/7	100	C129	C129	nc	na	ng/kg ww
PCB-164	7/7	100	2,200	5,540	3,910	na	ng/kg ww
PCB-165	6/7	86	30.6	76.5	51.6	66.9	ng/kg ww
PCB-166	7/7	100	C128	C128	nc	na	ng/kg ww
PCB-167	7/7	100	1,250	3,600	2,610	na	ng/kg ww
PCB-168	7/7	100	C153	C153	nc	na	ng/kg ww
PCB-169	0/7	0	nd	nd	3.78	1.81 – 20.6	ng/kg ww
PCB-170	7/7	100	7,520	17,700	13,200	na	ng/kg ww
PCB-171	7/7	100	2,460 C	6,220 C	4,600	na	ng/kg ww
PCB-172	7/7	100	1,240	3,360	2,370	na	ng/kg ww
PCB-173	7/7	100	C171	C171	nc	na	ng/kg ww
PCB-174	7/7	100	6,350	13,700	10,400	na	ng/kg ww
PCB-175	7/7	100	343	765	596	na	ng/kg ww
PCB-176	7/7	100	938	2,540	1,850	na	ng/kg ww
PCB-177	7/7	100	5,580	11,800	9,090	na	ng/kg ww
PCB-178	7/7	100	2,070	4,600	3,480	na	ng/kg ww
PCB-179	7/7	100	3,390	8,030	6,100	na	ng/kg ww
PCB-180	7/7	100	21,400 C	47,300 C	34,600	na	ng/kg ww
PCB-181	7/7	100	63.9	178	124	na	ng/kg ww
PCB-182	7/7	100	75.3	196	142	na	ng/kg ww
PCB-183	7/7	100	7,210 C	16,000 C	12,200	na	ng/kg ww
PCB-184	7/7	100	5.62	22.0 J	12.1	na	ng/kg ww
PCB-185	7/7	100	C183	C183	nc	na	ng/kg ww
PCB-186	3/7	43	1.14 J	5.24 J	1.64	1.51 – 1.90	ng/kg ww
PCB-187	7/7	100	14,300	29,300	23,100	na	ng/kg ww
PCB-188	7/7	100	18.9	50.9	38.4	na	ng/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-189	7/7	100	226	511	391	na	ng/kg ww
PCB-190	7/7	100	2,050	5,080	3,700	na	ng/kg ww
PCB-191	7/7	100	376	974	688	na	ng/kg ww
PCB-192	0/7	0	nd	nd	0.893	0.414 – 3.04	ng/kg ww
PCB-193	7/7	100	C180	C180	nc	na	ng/kg ww
PCB-194	7/7	100	2,550	5,820	4,520	na	ng/kg ww
PCB-195	7/7	100	1,090	2,520	1,940	na	ng/kg ww
PCB-196	7/7	100	1,590	3,810	2,850	na	ng/kg ww
PCB-197	7/7	100	340 C	1,080 C	768	na	ng/kg ww
PCB-198	7/7	100	3,100 C	7,730 C	5,760	na	ng/kg ww
PCB-199	7/7	100	C198	C198	nc	na	ng/kg ww
PCB-200	7/7	100	C197	C197	nc	na	ng/kg ww
PCB-201	7/7	100	370	980	754	na	ng/kg ww
PCB-202	7/7	100	774	1,920	1,440	na	ng/kg ww
PCB-203	7/7	100	2,480	5,460	4,180	na	ng/kg ww
PCB-204	7/7	100	0.647 J	3.73 J	2.13	na	ng/kg ww
PCB-205	7/7	100	156	351	276	na	ng/kg ww
PCB-206	7/7	100	554	1,680	1,130	na	ng/kg ww
PCB-207	7/7	100	67.9	212	145	na	ng/kg ww
PCB-208	7/7	100	147	447	312	na	ng/kg ww
PCB-209	7/7	100	96.1	257	168	na	ng/kg ww
Total PCB congeners	7/7	100	510,000 J	1,269,000 J	955,000	na	ng/kg ww
Aroclor-1016	0/17	0	nd	nd	32	10 – 100	µg/kg ww
Aroclor-1221	0/17	0	nd	nd	35	20 – 100	µg/kg ww
Aroclor-1232	0/17	0	nd	nd	32	10 – 100	µg/kg ww
Aroclor-1242	0/17	0	nd	nd	32	10 – 100	µg/kg ww
Aroclor-1248	7/17	41	140	380	140	100	µg/kg ww
Aroclor-1254	17/17	100	290	1,000	610	na	µg/kg ww
Aroclor-1260	17/17	100	150	810	410	na	µg/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total PCBs	17/17	100	450	2,010	1,100	nc	µg/kg ww
PCB TEQ – Bird	7/7	100	17.80 J	74.6	46.3	na	ng/kg ww
PCB TEQ – Fish	7/7	100	0.3550 J	1.170	0.805	na	ng/kg ww
PCB TEQ – Mammal	7/7	100	4.23 J	14.1	9.66	na	ng/kg ww
Pesticides							
2,4'-DDD	0/7	0	nd	nd	3.4	3.8 – 7.8	µg/kg ww
2,4'-DDE	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
2,4'-DDT	7/7	100	20 JN	50 JN	39	na	µg/kg ww
4,4'-DDD	7/7	100	2.3 JN	6.6 JN	4.5	na	µg/kg ww
4,4'-DDE	4/7	57	2.6 JN	12 JN	5.1	4.3 – 7.2	µg/kg ww
4,4'-DDT	7/7	100	12 JN	40 JN	28	na	µg/kg ww
Total DDTs	7/7	100	37 JN	103 JN	75	nc	µg/kg ww
Aldrin	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
Dieldrin	0/7	0	nd	nd	3.4	5.0 – 7.2	µg/kg ww
Total aldrin/dieldrin	0/7	0	nd	nd	3.4	nc	µg/kg ww
alpha-BHC	1/7	14	0.38 JN	0.38 JN	3.1	7.2	µg/kg ww
beta-BHC	2/7	29	1.6 JN	2.2 JN	3.1	7.2	µg/kg ww
gamma-BHC	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
delta-BHC	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
alpha-Chlordane	1/7	14	0.60 JN	0.60 JN	3.2	7.2	µg/kg ww
gamma-Chlordane	7/7	100	10 JN	28 JN	19	na	µg/kg ww
alpha-Endosulfan	4/7	57	1.7 JN	4.4 JN	3.1	7.2	µg/kg ww
beta-Endosulfan	1/7	14	6.9 JN	6.9 JN	4.1	7.2	µg/kg ww
Endosulfan sulfate	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
Endrin	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
Endrin aldehyde	1/7	14	8.1 JN	8.1 JN	3.8	1.6 – 7.2	µg/kg ww
Endrin ketone	0/7	0	nd	nd	3.2	1.5 – 7.2	µg/kg ww
Heptachlor	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
Heptachlor epoxide	0/7	0	nd	nd	3.3	2.9 – 7.2	µg/kg ww

Table E.6.3-7, cont. Summary statistics for English sole, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Methoxychlor	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
Mirex	0/7	0	nd	nd	3.2	1.0 – 7.2	µg/kg ww
Toxaphene	0/7	0	nd	nd	190	310 – 440	µg/kg ww
Total chlordane	7/7	100	10 JN	28 JN	19	nc	µg/kg ww
Conventional parameters							
Total solids	17/17	100	20.8	24.90	23.0	na	% ww
Lipid	17/17	100	1.6	5.09	3.3	na	% ww

Table E.6.3-8. Summary statistics for English sole, fillet without skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	0/3	0	nd	nd	0.010	0.020	mg/kg ww
Arsenic	9/9	100	9.0	15	11	na	mg/kg ww
Cadmium	0/3	0	nd	nd	0.0040	0.0079	mg/kg ww
Chromium	2/3	67	0.054	0.062	0.047	0.049	mg/kg ww
Copper	9/9	100	0.18	0.37	0.24	na	mg/kg ww
Lead	0/9	0	nd	nd	0.012	0.020 – 0.030	mg/kg ww
Mercury	15/15	100	0.020	0.083	0.052	na	mg/kg ww
Methylmercury	3/3	100	18	25	22	na	µg/kg ww
Nickel	0/3	0	nd	nd	0.010	0.020	mg/kg ww
Silver	0/3	0	nd	nd	0.0060	0.012	mg/kg ww
Zinc	3/3	100	3.8	4.6	4.1	na	mg/kg ww
Organometals							
Tributyltin as ion	3/9	33	3.9	5.7	2.1	0.74 – 2.0	µg/kg ww
PAHs							
2-Chloronaphthalene	0/6	0	nd	nd	6.8	11 – 16	µg/kg ww
2-Methylnaphthalene	0/6	0	nd	nd	12	3.6 – 43	µg/kg ww
Acenaphthene	0/6	0	nd	nd	3.7	3.6 – 11	µg/kg ww
Acenaphthylene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Anthracene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Benzo(a)anthracene	0/6	0	nd	nd	6.8	11 – 16	µg/kg ww
Benzo(a)pyrene	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
Benzo(b)fluoranthene	0/6	0	nd	nd	14	11 – 43	µg/kg ww
Benzo(g,h,i)perylene	0/6	0	nd	nd	9.5	11 – 27	µg/kg ww
Benzo(k)fluoranthene	0/6	0	nd	nd	13	7.1 – 43	µg/kg ww
Total benzofluoranthenes	0/6	0	nd	nd	14	nc	µg/kg ww
Chrysene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Dibenzo(a,h)anthracene	0/6	0	nd	nd	14	11 – 43	µg/kg ww
Dibenzofuran	0/6	0	nd	nd	9.5	11 – 27	µg/kg ww
Fluoranthene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Fluorene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/6	0	nd	nd	11	18 – 27	µg/kg ww
Naphthalene	0/6	0	nd	nd	12	3.6 – 43	µg/kg ww
Phenanthrene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww

Table E.6.3-8, cont. Summary statistics for English sole, fillet without skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Pyrene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Total HPAH	0/6	0	nd	nd	15	nc	µg/kg ww
Total LPAH	0/6	0	nd	nd	12	nc	µg/kg ww
Carcinogenic PAHs – Mammal	0/6	0	nd	nd	8.9	6.4 – 29	µg/kg ww
Total PAH	0/6	0	nd	nd	15	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Butyl benzyl phthalate	0/6	0	nd	nd	6.8	11 – 16	µg/kg ww
Diethyl phthalate	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
Dimethyl phthalate	0/6	0	nd	nd	3.7	3.6 – 11	µg/kg ww
Di-n-butyl phthalate	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
Di-n-octyl phthalate	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
1,2-Dichlorobenzene	0/6	0	nd	nd	6.8	11 – 16	µg/kg ww
1,2-Diphenylhydrazine	0/6	0	nd	nd	14	3.6 – 53	µg/kg ww
1,3-Dichlorobenzene	0/6	0	nd	nd	6.8	11 – 16	µg/kg ww
1,4-Dichlorobenzene	0/6	0	nd	nd	6.8	11 – 16	µg/kg ww
2,4,5-Trichlorophenol	0/6	0	nd	nd	32	18 – 110	µg/kg ww
2,4,6-Trichlorophenol	0/6	0	nd	nd	32	18 – 110	µg/kg ww
2,4-Dichlorophenol	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
2,4-Dimethylphenol	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
2,4-Dinitrophenol	0/6	0	nd	nd	31	53 – 72	µg/kg ww
2,4-Dinitrotoluene	0/6	0	nd	nd	7.3	11 – 18	µg/kg ww
2,6-Dinitrotoluene	0/6	0	nd	nd	7.3	11 – 18	µg/kg ww
2-Chlorophenol	0/6	0	nd	nd	14	3.6 – 53	µg/kg ww
2-Methylphenol	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
2-Nitroaniline	0/6	0	nd	nd	29	7.1 – 110	µg/kg ww
2-Nitrophenol	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
3-Nitroaniline	0/6	0	nd	nd	28	3.6 – 110	µg/kg ww
4,6-Dinitro-o-cresol	0/6	0	nd	nd	27	53	µg/kg ww
4-Bromophenyl phenyl ether	0/6	0	nd	nd	7.3	11 – 18	µg/kg ww
4-Chloro-3-methylphenol	0/6	0	nd	nd	14	3.6 – 53	µg/kg ww
4-Chloroaniline	0/3	0	nd	nd	18	36	µg/kg ww
4-Chlorophenyl phenyl ether	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
4-Methylphenol	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
4-Nitroaniline	0/6	0	nd	nd	32	18 – 110	µg/kg ww

Table E.6.3-8, cont. Summary statistics for English sole, fillet without skin

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4-Nitrophenol	0/6	0	nd	nd	22	36 – 53	µg/kg ww
Aniline	0/3	0	nd	nd	27	53	µg/kg ww
Benzoic acid	0/6	0	nd	nd	37	36 – 110	µg/kg ww
Benzyl alcohol	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
bis(2-chloroethoxy)methane	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
bis(2-chloroethyl)ether	0/6	0	nd	nd	4.9	3.6 – 16	µg/kg ww
bis(2-chloroisopropyl)ether	0/6	0	nd	nd	16	11 – 53	µg/kg ww
Caffeine	0/3	0	nd	nd	2.7	5.3	µg/kg ww
Carbazole	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
Coprostanol	0/6	0	nd	nd	73	110 – 180	µg/kg ww
Hexachlorobenzene	0/6	0	nd	nd	8.5	16 – 18	µg/kg ww
Hexachlorobutadiene	0/6	0	nd	nd	9.5	11 – 27	µg/kg ww
Hexachlorocyclopentadiene	0/3	0	nd	nd	18	36	µg/kg ww
Hexachloroethane	0/6	0	nd	nd	9.5	11 – 27	µg/kg ww
Isophorone	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
Nitrobenzene	0/6	0	nd	nd	9.5	11 – 27	µg/kg ww
N-Nitrosodimethylamine	0/6	0	nd	nd	28	3.6 – 110	µg/kg ww
N-Nitroso-di-n-propylamine	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
N-Nitrosodiphenylamine	0/6	0	nd	nd	7.7	3.6 – 27	µg/kg ww
Pentachlorophenol	0/6	0	nd	nd	16	27 – 36	µg/kg ww
Phenol	0/6	0	nd	nd	28	3.6 – 110	µg/kg ww
Polychlorinated biphenyls							
PCB-052	3/3	100	4,500	8,700	6,700	na	ng/kg ww
PCB-075	3/3	100	1,800	3,600	2,700	na	ng/kg ww
PCB-077	0/3	0	nd	nd	58	110 – 120	ng/kg ww
PCB-081	0/3	0	nd	nd	85	160 – 180	ng/kg ww
PCB-101	3/3	100	9,000	14,000	12,000	na	ng/kg ww
PCB-105	3/3	100	2,200	3,200	2,800	na	ng/kg ww
PCB-118	3/3	100	5,200	9,400	7,300	na	ng/kg ww
PCB-126	0/3	0	nd	nd	85	160 – 180	ng/kg ww
PCB-128	3/3	100	1,200	1,800	1,500	na	ng/kg ww
PCB-138	3/3	100	6,600	12,000	9,300	na	ng/kg ww
PCB-141	3/3	100	1,200	1,900	1,600	na	ng/kg ww
PCB-149	3/3	100	6,400	11,000	8,900	na	ng/kg ww
PCB-151	0/3	0	nd	nd	85	160 – 180	ng/kg ww
PCB-153	3/3	100	9,700	19,000	14,000	na	ng/kg ww
PCB-169	0/3	0	nd	nd	85	160 – 180	ng/kg ww

Table E.6.3-8, cont. Summary statistics for English sole, fillet without skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-170	3/3	100	1,500	2,600	2,100	na	ng/kg ww
PCB-174	3/3	100	1,100	2,000	1,600	na	ng/kg ww
PCB-177	3/3	100	1,000	1,700	1,400	na	ng/kg ww
PCB-180	3/3	100	2,700	4,800	3,900	na	ng/kg ww
PCB-183	3/3	100	1,300	2,200	1,700	na	ng/kg ww
PCB-187	3/3	100	2,200	4,200	3,200	na	ng/kg ww
PCB-195	3/3	100	470	570	530	na	ng/kg ww
PCB-206	3/3	100	340	440	400	na	ng/kg ww
Aroclor-1016	0/12	0	nd	nd	6.5	5.3 – 20	µg/kg ww
Aroclor-1016/1242	3/3	100	10 J	16 J	14	na	µg/kg ww
Aroclor-1221	0/12	0	nd	nd	6.5	5.3 – 20	µg/kg ww
Aroclor-1232	0/12	0	nd	nd	6.5	5.3 – 20	µg/kg ww
Aroclor-1242	0/12	0	nd	nd	4.0	5.3 – 10	µg/kg ww
Aroclor-1248	6/15	40	9.0	26	7.7	0.23 – 6.9	µg/kg ww
Aroclor-1254	15/15	100	22 J	300 J	130	na	µg/kg ww
Aroclor-1260	15/15	100	27	210 J	85	na	µg/kg ww
Total PCBs	15/15	100	79	530 J	230	nc	µg/kg ww
PCB TEQ – Bird	3/3	100	19	21	20	na	ng/kg ww
PCB TEQ – Fish	3/3	100	0.49	0.56	0.53	na	ng/kg ww
PCB TEQ – Mammal	3/3	100	11	12	11	na	ng/kg ww
Pesticides							
4,4'-DDD	6/9	67	1.1	5.0	2.1	1.3	µg/kg ww
4,4'-DDE	7/9	78	1.1	5.9	2.6	1.0	µg/kg ww
4,4'-DDT	0/9	0	nd	nd	1.0	2.0	µg/kg ww
Total DDTs	7/9	78	1.1	10.9	4.7	nc	µg/kg ww
Aldrin	0/9	0	nd	nd	0.25	0.50	µg/kg ww
Dieldrin	0/9	0	nd	nd	0.50	1.0	µg/kg ww
Total aldrin/dieldrin	0/9	0	nd	nd	0.50	nc	µg/kg ww
alpha-BHC	0/9	0	nd	nd	0.25	0.50	µg/kg ww
beta-BHC	0/9	0	nd	nd	0.25	0.50	µg/kg ww
gamma-BHC	0/9	0	nd	nd	0.25	0.50	µg/kg ww
delta-BHC	0/9	0	nd	nd	0.25	0.50	µg/kg ww
alpha-Chlordane	3/9	33	1.6 J	2.0 J	0.74	0.50	µg/kg ww
gamma-Chlordane	1/9	11	0.52 J	0.52 J	0.28	0.50	µg/kg ww
alpha-Endosulfan	0/9	0	nd	nd	0.25	0.50	µg/kg ww
beta-Endosulfan	0/9	0	nd	nd	0.50	1.0	µg/kg ww
Endosulfan sulfate	0/9	0	nd	nd	0.50	1.0	µg/kg ww

Table E.6.3-8, cont. Summary statistics for English sole, fillet without skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Endrin	0/9	0	nd	nd	0.50	1.0	µg/kg ww
Endrin aldehyde	0/9	0	nd	nd	0.50	1.0	µg/kg ww
Heptachlor	0/9	0	nd	nd	0.25	0.50	µg/kg ww
Heptachlor epoxide	0/9	0	nd	nd	0.25	0.50	µg/kg ww
Methoxychlor	0/9	0	nd	nd	5.0	10	µg/kg ww
Toxaphene	0/9	0	nd	nd	5.0	10	µg/kg ww
Total chlordane	3/9	33	1.6 J	2.5 J	0.80	nc	µg/kg ww
Conventional parameters							
Total solids	7/7	100	15	17	17	na	% ww
Lipid	12/12	100	0.24	12	3.0	na	% ww

Table E.6.3-9. Summary statistics for English sole, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	21/21	100	0.0025 J	0.0111 J	0.0060	na	mg/kg ww
Arsenic	21/21	100	2.230	4.330	3.274	na	mg/kg ww
Arsenic (inorganic)	7/7	100	0.020	0.090	0.051	na	mg/kg ww
Cadmium	21/21	100	0.0042 J	0.0151	0.0077	na	mg/kg ww
Chromium	18/21	86	0.08 J	0.39	0.2	0.13 – 0.14	mg/kg ww
Cobalt	21/21	100	0.0242	0.0949	0.0457	na	mg/kg ww
Copper	21/21	100	0.494	3.470	1.79	na	mg/kg ww
Lead	21/21	100	0.0977	0.946	0.373	na	mg/kg ww
Mercury	21/21	100	0.005	0.027	0.01	na	mg/kg ww
Molybdenum	21/21	100	0.0121 J	0.0430	0.0201	na	mg/kg ww
Nickel	21/21	100	0.120	0.378 J	0.208	na	mg/kg ww
Selenium	21/21	100	0.10	0.320	0.19	na	mg/kg ww
Silver	21/21	100	0.0013 J	0.0066	0.0034	na	mg/kg ww
Thallium	7/21	33	0.0005 J	0.0012 J	0.002	0.0043 – 0.0055	mg/kg ww
Vanadium	21/21	100	0.2 J	0.49	0.4	na	mg/kg ww
Zinc	21/21	100	11.2	14.4	12.6	na	mg/kg ww
Organometals							
Monobutyltin as ion	4/20	20	0.58 J	1.0 J	0.77	1.5	µg/kg ww
Dibutyltin as ion	18/20	90	0.53 J	4.0	1.7	1.5	µg/kg ww
Tributyltin as ion	15/20	75	3.1	9.9 J	4.7	1.5 – 2.1	µg/kg ww
Tetrabutyltin as ion	0/20	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/21	0	nd	nd	220	290 – 580	µg/kg ww
2-Methylnaphthalene	21/21	100	1.6	10	3.8	na	µg/kg ww
Acenaphthene	21/21	100	3.5	22	8.2	na	µg/kg ww
Acenaphthylene	21/21	100	0.56	2.8	1.7	na	µg/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Anthracene	21/21	100	0.89	9.0	3.5	na	µg/kg ww
Benzo(a)anthracene	17/21	81	0.35 J	3.6	1.5	0.50	µg/kg ww
Benzo(a)pyrene	14/21	67	0.49 J	1.8	0.97	0.50 – 0.72	µg/kg ww
Benzo(b)fluoranthene	17/21	81	0.33 J	3.1	1.5	0.50 – 0.72	µg/kg ww
Benzo(g,h,i)perylene	17/21	81	0.21 J	1.2	0.63	0.50 – 0.72	µg/kg ww
Benzo(k)fluoranthene	17/21	81	0.25 J	2.7	1.3	0.50 – 0.72	µg/kg ww
Total benzofluoranthenes	17/21	81	0.58 J	5.2	2.7	nc	µg/kg ww
Chrysene	17/21	81	0.65 J	9.0	2.4	0.50	µg/kg ww
Dibenzo(a,h)anthracene	7/21	33	0.12 J	0.45 J	0.28	0.50 – 0.72	µg/kg ww
Dibenzofuran	21/21	100	1.6	9.5	3.8	na	µg/kg ww
Fluoranthene	21/21	100	2.3	11	4.9	na	µg/kg ww
Fluorene	21/21	100	1.2	6.3	2.9	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	17/21	81	0.16 J	1.4	0.66	0.50 – 0.72	µg/kg ww
Naphthalene	17/21	81	2.6	12	5.2	4.8 – 7.8	µg/kg ww
Phenanthrene	21/21	100	1.9	13	4.2	na	µg/kg ww
Pyrene	21/21	100	1.2	7.7	3.1	na	µg/kg ww
Total HPAH	21/21	100	3.8	35 J	17	nc	µg/kg ww
Total LPAH	21/21	100	11.3	54	25	nc	µg/kg ww
Carcinogenic PAHs – Mammal	18/21	86	0.45 J	2.8	1.6	0.45	µg/kg ww
Total PAH	21/21	100	21.8 J	83	42	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/21	0	nd	nd	760	66 – 3,600	µg/kg ww
Butyl benzyl phthalate	3/21	14	560 J	650	460	290 – 1,200	µg/kg ww
Diethyl phthalate	4/21	19	100 J	110 J	420	570 – 1,200	µg/kg ww
Dimethyl phthalate	0/21	0	nd	nd	220	290 – 580	µg/kg ww
Di-n-butyl phthalate	0/21	0	nd	nd	380	290 – 1,200	µg/kg ww
Di-n-octyl phthalate	0/21	0	nd	nd	940	290 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/21	0	nd	nd	220	290 – 580	µg/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
1,2-Dichlorobenzene	0/21	0	nd	nd	220	290 – 580	µg/kg ww
1,3-Dichlorobenzene	0/21	0	nd	nd	220	290 – 580	µg/kg ww
1,4-Dichlorobenzene	0/21	0	nd	nd	220	290 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/21	0	nd	nd	980	570 – 2,900	µg/kg ww
2,4,6-Trichlorophenol	0/21	0	nd	nd	980	570 – 2,900	µg/kg ww
2,4-Dichlorophenol	0/21	0	nd	nd	450	570 – 1,200	µg/kg ww
2,4-Dimethylphenol	0/21	0	nd	nd	450	570 – 1,200	µg/kg ww
2,4-Dinitrophenol	0/21	0	nd	nd	4,500	5,700 – 12,000	µg/kg ww
2,4-Dinitrotoluene	0/21	0	nd	nd	540	570 – 1,500	µg/kg ww
2,6-Dinitrotoluene	0/21	0	nd	nd	500	290 – 1,500	µg/kg ww
2-Chlorophenol	0/21	0	nd	nd	450	570 – 1,200	µg/kg ww
2-Methylphenol	0/21	0	nd	nd	450	570 – 1,200	µg/kg ww
2-Nitroaniline	0/21	0	nd	nd	1,100	1,500 – 2,900	µg/kg ww
2-Nitrophenol	0/21	0	nd	nd	940	290 – 2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/21	0	nd	nd	11,000	15,000 – 29,000	µg/kg ww
3-Nitroaniline	0/21	0	nd	nd	2,200	2,900 – 5,800	µg/kg ww
4,6-Dinitro-o-cresol	0/21	0	nd	nd	2,200	2,900 – 5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/21	0	nd	nd	220	290 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/21	0	nd	nd	1,100	1,500 – 2,900	µg/kg ww
4-Chloroaniline	0/21	0	nd	nd	1,100	1,500 – 2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/21	0	nd	nd	220	290 – 580	µg/kg ww
4-Methylphenol	0/21	0	nd	nd	450	570 – 1,200	µg/kg ww
4-Nitroaniline	0/21	0	nd	nd	1,300	1,500 – 2,900	µg/kg ww
4-Nitrophenol	0/21	0	nd	nd	2,200	2,900 – 5,800	µg/kg ww
Aniline	0/21	0	nd	nd	4,500	5,700 – 12,000	µg/kg ww
Benzidine	0/11	0	nd	nd	26,000	50,000 – 72,000	µg/kg ww
Benzoic acid	14/21	67	1,900 J	6,500 J	4,200	5,700 – 5,800	µg/kg ww
Benzyl alcohol	11/21	52	79 J	610	220	570 – 580	µg/kg ww
bis(2-chloroethoxy)methane	0/21	0	nd	nd	330	290 – 1,500	µg/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
bis(2-chloroethyl)ether	0/21	0	nd	nd	250	290 – 580	µg/kg ww
bis(2-chloroisopropyl)ether	0/21	0	nd	nd	220	290 – 580	µg/kg ww
Carbazole	0/21	0	nd	nd	1,100	1,500 – 2,900	µg/kg ww
Hexachlorobenzene	4/21	19	4.4 JN	6.6 JN	4.6	7.2 – 10	µg/kg ww
Hexachlorobutadiene	0/21	0	nd	nd	220	290 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/21	0	nd	nd	31,000	50,000 – 72,000	µg/kg ww
Hexachloroethane	0/21	0	nd	nd	220	290 – 580	µg/kg ww
Isophorone	0/21	0	nd	nd	220	290 – 580	µg/kg ww
Nitrobenzene	0/21	0	nd	nd	220	290 – 580	µg/kg ww
N-Nitrosodimethylamine	0/21	0	nd	nd	1,500	1,500 – 5,800	µg/kg ww
N-Nitroso-di-n-propylamine	1/21	5	270 JN	270 JN	220	290 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/21	0	nd	nd	220	290 – 580	µg/kg ww
Pentachlorophenol	5/21	24	1.1 J	1,600 J	700	3.3 – 2,900	µg/kg ww
Phenol	0/21	0	nd	nd	560	710 – 1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	3/10	30	12.4 J	27.8 J	11.0	9.65 – 23.1	ng/kg ww
PCB-002	4/10	40	2.35 J	4.12 J	2.02	2.42 – 3.58	ng/kg ww
PCB-003	3/10	30	3.81 J	6.90 J	2.93	2.83 – 5.63	ng/kg ww
PCB-004	10/10	100	150	1,020	419	na	ng/kg ww
PCB-005	8/10	80	6.69 J	34.1	13.6	7.00 – 11.6	ng/kg ww
PCB-006	10/10	100	158	719	379	na	ng/kg ww
PCB-007	10/10	100	19.7 J	80.6	36.1	na	ng/kg ww
PCB-008	10/10	100	488	2,570	1,010	na	ng/kg ww
PCB-009	10/10	100	28.8 J	167	64.8	na	ng/kg ww
PCB-010	9/10	90	12.6 J	56.5	23.5	10.4	ng/kg ww
PCB-011	2/10	20	10.1 J	263	30.8	4.03 – 11.9	ng/kg ww
PCB-012	4/10	40	11.7 CJ	24.0 CJ	12.5	11.6 – 28.8	ng/kg ww
PCB-013	4/10	40	C12	C12	nc	na	ng/kg ww
PCB-014	0/10	0	nd	nd	3.88	3.91 – 11.0	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-015	5/10	50	65.7	390	95.0	14.6 – 96.2	ng/kg ww
PCB-016	10/10	100	767	3,780	1,540	na	ng/kg ww
PCB-017	10/10	100	2,130	8,700	3,820	na	ng/kg ww
PCB-018	10/10	100	3,610 C	14,700 C	6,670	na	ng/kg ww
PCB-019	10/10	100	356	1,440	676	na	ng/kg ww
PCB-020	10/10	100	8,660 C	42,700 C	19,100	na	ng/kg ww
PCB-021	10/10	100	1,700 C	9,010 C	4,330	na	ng/kg ww
PCB-022	10/10	100	1,520	8,300	3,570	na	ng/kg ww
PCB-023	4/10	40	6.27 J	32.8	10.9	8.20 – 17.4	ng/kg ww
PCB-024	10/10	100	48.0	232	100	na	ng/kg ww
PCB-025	10/10	100	582	1,940	1,390	na	ng/kg ww
PCB-026	10/10	100	1,820 C	5,770 C	3,900	na	ng/kg ww
PCB-027	10/10	100	547	1,660	910	na	ng/kg ww
PCB-028	10/10	100	C20	C20	nc	na	ng/kg ww
PCB-029	10/10	100	C26	C26	nc	na	ng/kg ww
PCB-030	10/10	100	C18	C18	nc	na	ng/kg ww
PCB-031	10/10	100	4,620	24,500	10,400	na	ng/kg ww
PCB-032	10/10	100	1,470	7,210	3,190	na	ng/kg ww
PCB-033	10/10	100	C21	C21	nc	na	ng/kg ww
PCB-034	10/10	100	52.9	155	93.6	na	ng/kg ww
PCB-035	0/10	0	nd	nd	4.99	2.24 – 19.0	ng/kg ww
PCB-036	0/10	0	nd	nd	4.42	2.00 – 16.7	ng/kg ww
PCB-037	10/10	100	376	2,450	749	na	ng/kg ww
PCB-038	10/10	100	21.2 J	75.4	46.2	na	ng/kg ww
PCB-039	7/10	70	65.8	193	94.9	4.57 – 7.49	ng/kg ww
PCB-040	10/10	100	7,660 C	22,100 C	12,900	na	ng/kg ww
PCB-041	10/10	100	C40	C40	nc	na	ng/kg ww
PCB-042	10/10	100	4,760	15,300	8,920	na	ng/kg ww
PCB-043	10/10	100	840	2,540	1,590	na	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-044	10/10	100	18,100 C	48,500 C	30,500	na	ng/kg ww
PCB-045	10/10	100	2,530 C	7,710 C	4,330	na	ng/kg ww
PCB-046	10/10	100	393	1,330	722	na	ng/kg ww
PCB-047	10/10	100	C44	C44	nc	na	ng/kg ww
PCB-048	10/10	100	2,620	8,050	4,950	na	ng/kg ww
PCB-049	10/10	100	23,000 C	49,200 C	35,100	na	ng/kg ww
PCB-050	10/10	100	2,720 C	6,750 C	4,130	na	ng/kg ww
PCB-051	10/10	100	C45	C45	nc	na	ng/kg ww
PCB-052	10/10	100	37,000	75,200	56,500	na	ng/kg ww
PCB-053	10/10	100	C50	C50	nc	na	ng/kg ww
PCB-054	10/10	100	33.7	115	60.4	na	ng/kg ww
PCB-055	5/10	50	271	771	268	20.8 – 118	ng/kg ww
PCB-056	10/10	100	2,590	10,600	5,800	na	ng/kg ww
PCB-057	10/10	100	104	334	250	na	ng/kg ww
PCB-058	9/10	90	75.0	245	145	65.2	ng/kg ww
PCB-059	10/10	100	2,520 C	6,040 C	4,060	na	ng/kg ww
PCB-060	10/10	100	3,690	16,100	8,470	na	ng/kg ww
PCB-061	10/10	100	31,600 C	98,300 C	59,000	na	ng/kg ww
PCB-062	10/10	100	C59	C59	nc	na	ng/kg ww
PCB-063	10/10	100	1,030	2,940	1,870	na	ng/kg ww
PCB-064	10/10	100	8,440	27,100	16,100	na	ng/kg ww
PCB-065	10/10	100	C44	C44	nc	na	ng/kg ww
PCB-066	10/10	100	21,300	61,800	40,100	na	ng/kg ww
PCB-067	9/10	90	339	1,170	642	18.2	ng/kg ww
PCB-068	10/10	100	192	562	377	na	ng/kg ww
PCB-069	10/10	100	C49	C49	nc	na	ng/kg ww
PCB-070	10/10	100	C61	C61	nc	na	ng/kg ww
PCB-071	10/10	100	C40	C40	nc	na	ng/kg ww
PCB-072	10/10	100	402	1,100	768	na	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-073	2/10	20	454	496	96.2	0.396 – 4.99	ng/kg ww
PCB-074	10/10	100	C61	C61	nc	na	ng/kg ww
PCB-075	10/10	100	C59	C59	nc	na	ng/kg ww
PCB-076	10/10	100	C61	C61	nc	na	ng/kg ww
PCB-077	10/10	100	419	2,070	1,080	na	ng/kg ww
PCB-078	0/10	0	nd	nd	24.3	21.0 – 121	ng/kg ww
PCB-079	10/10	100	542	1,420	896	na	ng/kg ww
PCB-080	0/10	0	nd	nd	21.4	18.1 – 108	ng/kg ww
PCB-081	10/10	100	41.7	165	87.9	na	ng/kg ww
PCB-082	10/10	100	3,360	8,930	6,160	na	ng/kg ww
PCB-083	10/10	100	48,800 C	115,000 C	74,900	na	ng/kg ww
PCB-084	10/10	100	7,900	16,600	12,000	na	ng/kg ww
PCB-085	10/10	100	10,700 C	25,500 C	17,700	na	ng/kg ww
PCB-086	10/10	100	36,200 C	88,400 C	58,600	na	ng/kg ww
PCB-087	10/10	100	C86	C86	nc	na	ng/kg ww
PCB-088	10/10	100	9,540 C	22,000 C	14,400	na	ng/kg ww
PCB-089	10/10	100	323	771	518	na	ng/kg ww
PCB-090	10/10	100	81,100 C	199,000 C	132,000	na	ng/kg ww
PCB-091	10/10	100	C88	C88	nc	na	ng/kg ww
PCB-092	10/10	100	16,000	32,600	22,900	na	ng/kg ww
PCB-093	10/10	100	44,000 C	87,600 C	63,500	na	ng/kg ww
PCB-094	10/10	100	202	449	285	na	ng/kg ww
PCB-095	10/10	100	C93	C93	nc	na	ng/kg ww
PCB-096	10/10	100	262	514	373	na	ng/kg ww
PCB-097	10/10	100	C86	C86	nc	na	ng/kg ww
PCB-098	10/10	100	C93	C93	nc	na	ng/kg ww
PCB-099	10/10	100	C83	C83	nc	na	ng/kg ww
PCB-100	10/10	100	C93	C93	nc	na	ng/kg ww
PCB-101	10/10	100	C90	C90	nc	na	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-102	10/10	100	C93	C93	nc	na	ng/kg ww
PCB-103	10/10	100	1,260	3,240	1,920	na	ng/kg ww
PCB-104	10/10	100	11.6	32.6	19.2	na	ng/kg ww
PCB-105	10/10	100	17,000	49,200	31,900	na	ng/kg ww
PCB-106	0/10	0	nd	nd	26.1	11.9 – 157	ng/kg ww
PCB-107	10/10	100	1,710 C	4,330 C	2,680	na	ng/kg ww
PCB-108	10/10	100	C86	C86	nc	na	ng/kg ww
PCB-109	10/10	100	4,590	11,300	7,190	na	ng/kg ww
PCB-110	10/10	100	67,200 C	153,000 C	101,000	na	ng/kg ww
PCB-111	10/10	100	51.2	135	79.2	na	ng/kg ww
PCB-112	0/10	0	nd	nd	7.46	5.22 – 46.4	ng/kg ww
PCB-113	10/10	100	C90	C90	nc	na	ng/kg ww
PCB-114	10/10	100	1,200	3,620	2,130	na	ng/kg ww
PCB-115	10/10	100	C110	C110	nc	na	ng/kg ww
PCB-116	10/10	100	C85	C85	nc	na	ng/kg ww
PCB-117	10/10	100	C85	C85	nc	na	ng/kg ww
PCB-118	10/10	100	58,200	159,000 J	101,000	na	ng/kg ww
PCB-119	10/10	100	C86	C86	nc	na	ng/kg ww
PCB-120	10/10	100	363	958	571	na	ng/kg ww
PCB-121	9/10	90	28.0 J	97.8	45.3	47.4	ng/kg ww
PCB-122	8/10	80	274	744	347	45.1 – 159	ng/kg ww
PCB-123	10/10	100	934	2,430	1,690	na	ng/kg ww
PCB-124	10/10	100	C107	C107	nc	na	ng/kg ww
PCB-125	10/10	100	C86	C86	nc	na	ng/kg ww
PCB-126	10/10	100	59.5	192	133	na	ng/kg ww
PCB-127	7/10	70	148	296	162	55.0 – 175	ng/kg ww
PCB-128	10/10	100	10,100 C	26,500 C	17,700	na	ng/kg ww
PCB-129	10/10	100	103,000 C	284,000 C	180,000	na	ng/kg ww
PCB-130	10/10	100	4,990	13,500	8,600	na	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-131	10/10	100	722	1,840	1,170	na	ng/kg ww
PCB-132	10/10	100	23,000	51,300	33,200	na	ng/kg ww
PCB-133	10/10	100	1,840	4,760	2,900	na	ng/kg ww
PCB-134	10/10	100	3,890 C	9,970 C	6,120	na	ng/kg ww
PCB-135	10/10	100	33,600 C	80,600 C	54,400	na	ng/kg ww
PCB-136	10/10	100	9,600	22,900	14,300	na	ng/kg ww
PCB-137	10/10	100	3,530	9,130	5,770	na	ng/kg ww
PCB-138	10/10	100	C129	C129	nc	na	ng/kg ww
PCB-139	10/10	100	1,830 C	4,700 C	2,900	na	ng/kg ww
PCB-140	10/10	100	C139	C139	nc	na	ng/kg ww
PCB-141	10/10	100	15,000	45,700	26,500	na	ng/kg ww
PCB-142	0/10	0	nd	nd	28.8	16.6 – 127	ng/kg ww
PCB-143	10/10	100	C134	C134	nc	na	ng/kg ww
PCB-144	10/10	100	4,590	11,200	7,610	na	ng/kg ww
PCB-145	10/10	100	19.3 J	76.8	41.4	na	ng/kg ww
PCB-146	10/10	100	15,700	43,600	28,300	na	ng/kg ww
PCB-147	10/10	100	80,100 C	188,000 C	122,000	na	ng/kg ww
PCB-148	10/10	100	227	651	385	na	ng/kg ww
PCB-149	10/10	100	C147	C147	nc	na	ng/kg ww
PCB-150	10/10	100	218	603	341	na	ng/kg ww
PCB-151	10/10	100	C135	C135	nc	na	ng/kg ww
PCB-152	10/10	100	55.5	118	79.3	na	ng/kg ww
PCB-153	10/10	100	121,000 C	307,000 C	201,000	na	ng/kg ww
PCB-154	10/10	100	C135	C135	nc	na	ng/kg ww
PCB-155	10/10	100	12.9 J	57.4	24.6	na	ng/kg ww
PCB-156	10/10	100	8,850 C	24,300 C	14,800	na	ng/kg ww
PCB-157	10/10	100	C156	C156	nc	na	ng/kg ww
PCB-158	10/10	100	8,970	23,900	14,900	na	ng/kg ww
PCB-159	10/10	100	714	2,000	1,220	na	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-160	10/10	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/10	0	nd	nd	19.6	11.7 – 88.0	ng/kg ww
PCB-162	10/10	100	247	555	391	na	ng/kg ww
PCB-163	10/10	100	C129	C129	nc	na	ng/kg ww
PCB-164	10/10	100	5,120	14,100	8,740	na	ng/kg ww
PCB-165	8/10	80	57.1	136	75.7	86.2 – 98.7	ng/kg ww
PCB-166	10/10	100	C128	C128	nc	na	ng/kg ww
PCB-167	10/10	100	3,600	9,910	6,090	na	ng/kg ww
PCB-168	10/10	100	C153	C153	nc	na	ng/kg ww
PCB-169	6/10	60	3.17 J	7.13	7.72	2.58 – 84.5	ng/kg ww
PCB-170	10/10	100	17,700	47,100	30,900	na	ng/kg ww
PCB-171	10/10	100	5,980 C	16,400 C	10,600	na	ng/kg ww
PCB-172	10/10	100	3,110	9,330	5,780	na	ng/kg ww
PCB-173	10/10	100	C171	C171	nc	na	ng/kg ww
PCB-174	10/10	100	14,100	39,800	24,600	na	ng/kg ww
PCB-175	10/10	100	833	2,190	1,460	na	ng/kg ww
PCB-176	10/10	100	2,520	6,340	4,240	na	ng/kg ww
PCB-177	10/10	100	10,800	29,600	20,200	na	ng/kg ww
PCB-178	10/10	100	4,810	12,700	8,340	na	ng/kg ww
PCB-179	10/10	100	8,460	21,900	13,900	na	ng/kg ww
PCB-180	10/10	100	51,900 C	139,000 C	84,600	na	ng/kg ww
PCB-181	10/10	100	151	488	274	na	ng/kg ww
PCB-182	10/10	100	185	904	392	na	ng/kg ww
PCB-183	10/10	100	17,500 C	50,300 C	30,900	na	ng/kg ww
PCB-184	10/10	100	16.7	46.8	26.3	na	ng/kg ww
PCB-185	10/10	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/10	0	nd	nd	1.51	1.45 – 5.74	ng/kg ww
PCB-187	10/10	100	32,900	89,800	56,900	na	ng/kg ww
PCB-188	10/10	100	57.2	201	94.0	na	ng/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-189	10/10	100	555	1,370	953	na	ng/kg ww
PCB-190	10/10	100	4,440	14,200	8,420	na	ng/kg ww
PCB-191	10/10	100	970	3,000	1,680	na	ng/kg ww
PCB-192	0/10	0	nd	nd	1.75	1.70 – 6.68	ng/kg ww
PCB-193	10/10	100	C180	C180	nc	na	ng/kg ww
PCB-194	10/10	100	6,310	19,900	11,300	na	ng/kg ww
PCB-195	10/10	100	2,580	7,300	4,680	na	ng/kg ww
PCB-196	10/10	100	4,140	11,900	7,270	na	ng/kg ww
PCB-197	10/10	100	1,050 C	3,410 C	1,890	na	ng/kg ww
PCB-198	10/10	100	7,980 C	25,900 C	14,500	na	ng/kg ww
PCB-199	10/10	100	C198	C198	nc	na	ng/kg ww
PCB-200	10/10	100	C197	C197	nc	na	ng/kg ww
PCB-201	10/10	100	1,020	3,640	1,850	na	ng/kg ww
PCB-202	10/10	100	1,850	7,330	3,430	na	ng/kg ww
PCB-203	10/10	100	5,810	18,600	10,600	na	ng/kg ww
PCB-204	9/10	90	2.64 J	8.27 J	4.21	0.257	ng/kg ww
PCB-205	10/10	100	383	1,150	671	na	ng/kg ww
PCB-206	10/10	100	1,200	7,680	2,900	na	ng/kg ww
PCB-207	10/10	100	172	979	364	na	ng/kg ww
PCB-208	10/10	100	330	2,150	784	na	ng/kg ww
PCB-209	10/10	100	149	1,050	398	na	ng/kg ww
Total PCB congeners	10/10	100	1,361,000 J	3,214,000 J	2,140,000	nc	ng/kg ww
Aroclor-1016	0/42	0	nd	nd	46	10 – 160	µg/kg ww
Aroclor-1221	0/42	0	nd	nd	68	20 – 290	µg/kg ww
Aroclor-1232	0/42	0	nd	nd	47	10 – 160	µg/kg ww
Aroclor-1242	0/42	0	nd	nd	46	10 – 160	µg/kg ww
Aroclor-1248	21/42	50	230	1,200	330	60 – 160	µg/kg ww
Aroclor-1254	42/42	100	380 M	1,900	1,100	na	µg/kg ww
Aroclor-1260	42/42	100	220 M	1,900	890	na	µg/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Total PCBs [a]	42/42	100	610 M	4,700	2,300	nc	µg/kg ww
PCB TEQ – Bird	10/10	100	43.00	146.0	81.8	na	ng/kg ww
PCB TEQ – Fish	10/10	100	0.8730	2.420 J	1.61	na	ng/kg ww
PCB TEQ – Mammal	10/10	100	10.30	27.1 J	18.4	na	ng/kg ww
Pesticides							
2,4'-DDD	0/21	0	nd	nd	8.7	6.2 – 88	µg/kg ww
2,4'-DDE	0/21	0	nd	nd	4.4	2.9 – 18	µg/kg ww
2,4'-DDT	21/21	100	54 JN	130 JN	87	na	µg/kg ww
4,4'-DDD	21/21	100	6.7 JN	20 JN	11	na	µg/kg ww
4,4'-DDE	19/21	90	7.7 JN	20 JN	13	12 – 14	µg/kg ww
4,4'-DDT	21/21	100	42 JN	110 JN	73	na	µg/kg ww
Total DDTs	21/21	100	113 JN	280 JN	180	nc	µg/kg ww
Aldrin	1/21	5	6.2 JN	6.2 JN	4.3	7.2 – 10	µg/kg ww
Dieldrin	0/21	0	nd	nd	4.1	2.0 – 10	µg/kg ww
Total aldrin/dieldrin	1/21	5	6.2 JN	6.2 JN	4.3	nc	µg/kg ww
alpha-BHC	0/21	0	nd	nd	4.1	1.0 – 10	µg/kg ww
beta-BHC	8/21	38	4.0 JN	8.4 JN	4.7	7.2 – 10	µg/kg ww
gamma-BHC	2/21	10	2.3 JN	4.3 JN	4.2	7.2 – 10	µg/kg ww
delta-BHC	0/21	0	nd	nd	4.1	1.0 – 10	µg/kg ww
alpha-Chlordane	7/21	33	3.8 JN	6.6 JN	4.4	1.0 – 10	µg/kg ww
gamma-Chlordane	20/21	95	22 JN	53 JN	36	56	µg/kg ww
alpha-Endosulfan	13/21	62	2.1 JN	6.6 JN	4.0	7.2 – 10	µg/kg ww
beta-Endosulfan	4/21	19	6.5 JN	18 JN	5.7	7.2 – 10	µg/kg ww
Endosulfan sulfate	0/21	0	nd	nd	4.1	1.0 – 10	µg/kg ww
Endrin	2/21	10	2.8 JN	14 JN	4.6	1.7 – 12	µg/kg ww
Endrin aldehyde	1/21	5	5.5 JN	5.5 JN	4.2	1.3 – 10	µg/kg ww
Endrin ketone	0/21	0	nd	nd	4.1	1.9 – 10	µg/kg ww
Heptachlor	2/21	10	5.7 JN	6.8 JN	4.2	1.0 – 10	µg/kg ww
Heptachlor epoxide	12/21	57	12 JN	45 JN	18	7.2 – 10	µg/kg ww

Table E.6.3-9, cont. Summary statistics for English sole, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Methoxychlor	0/21	0	nd	nd	4.4	1.0 – 23	µg/kg ww
Mirex	0/21	0	nd	nd	4.1	1.0 – 10	µg/kg ww
Toxaphene	0/21	0	nd	nd	560	370 – 1,800	µg/kg ww
Total chlordane	21/21	100	6.6 JN	59 JN	37	nc	µg/kg ww
Conventional parameters							
Total solids[a]	42/42	100	20.99	28.96 M	25.1	na	% ww
Lipid[a]	42/42	100	2.6	8.7	5.5	na	% ww

a Samples include 32 whole-body samples and 10 calculated "whole-body" samples. Concentrations in "whole-body" samples were estimated using results from separate analyses of fillet and remainder composite samples (i.e., all remaining tissue and fluids after fillets were removed from the specimens). The estimated English sole "whole-body" concentrations were based on the relative weights and total PCB concentrations in skin-on fillet and remainder tissues collected in 2005.

Note: data for six English sole whole body composite samples collected by King County in 2006 are not included in this table.

Table E.6.3-10. Summary statistics for transplanted mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	0/34	0	nd	nd	0.01	0.02	mg/kg ww
Arsenic	35/35	100	0.573	1.42	0.791	na	mg/kg ww
Cadmium	35/35	100	0.231	0.781	0.379	na	mg/kg ww
Chromium	33/35	94	0.059	0.305	0.1	0.05	mg/kg ww
Cobalt	15/15	100	0.030	0.0784	0.047	na	mg/kg ww
Copper	35/35	100	0.513	2.08	1.13	na	mg/kg ww
Lead	35/35	100	0.043	0.288	0.13	na	mg/kg ww
Mercury	35/35	100	0.0051	0.0088	0.0066	na	mg/kg ww
Molybdenum	15/15	100	0.057	0.116	0.082	na	mg/kg ww
Nickel	35/35	100	0.0820	0.289	0.158	na	mg/kg ww
Silver	7/35	20	0.013	0.032	0.009	0.01 – 0.012	mg/kg ww
Vanadium	10/10	100	0.119	0.281	0.195	na	mg/kg ww
Zinc	35/35	100	4.78	20.6	9.71	na	mg/kg ww
Organometals							
Monobutyltin as ion	6/14	43	1.75 J	4.71 J	1.82	1.74	µg/kg ww
Dibutyltin as ion	12/14	86	2.56	5.30	3.17	2.87 – 3.42	µg/kg ww
Tributyltin as ion	32/32	100	9.35	36.9	19.6	na	µg/kg ww
PAHs							
2-Chloronaphthalene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
2-Methylnaphthalene	0/34	0	nd	nd	20	43 – 70	µg/kg ww
Acenaphthene	0/34	0	nd	nd	5.9	11 – 18	µg/kg ww
Acenaphthylene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Anthracene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Benzo(a)anthracene	13/34	38	20	39.3	17	16 – 26	µg/kg ww
Benzo(a)pyrene	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Benzo(b)fluoranthene	8/34	24	43	62	30	43 – 70	µg/kg ww
Benzo(g,h,i)perylene	0/34	0	nd	nd	10	27 – 44	µg/kg ww

Table E.6.3-10, cont. Summary statistics for transplanted mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Benzo(k)fluoranthene	0/34	0	nd	nd	20	43 – 70	µg/kg ww
Total benzofluoranthenes	8/34	24	43	62	30	nc	µg/kg ww
Chrysene	14/34	41	32.2	58.0	24	16 – 26	µg/kg ww
Dibenzo(a,h)anthracene	0/34	0	nd	nd	20	43 – 70	µg/kg ww
Dibenzofuran	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Fluoranthene	23/34	68	16	123	45	16 – 26	µg/kg ww
Fluorene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Naphthalene	0/34	0	nd	nd	20	43 – 70	µg/kg ww
Phenanthrene	10/34	29	16	24	12	16 – 26	µg/kg ww
Pyrene	15/34	44	30.0	122	40	16 – 26	µg/kg ww
Total HPAH	24/34	71	16	351	100	nc	µg/kg ww
Total LPAH	10/34	29	16	24	20	nc	µg/kg ww
Carcinogenic PAHs – Mammal	16/34	47	29	35	20	29 – 47	µg/kg ww
Total PAH	24/34	71	16	373	100	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Butyl benzyl phthalate	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Diethyl phthalate	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Dimethyl phthalate	0/34	0	nd	nd	5.9	11 – 18	µg/kg ww
Di-n-butyl phthalate	1/34	3	59	59	20	27 – 44	µg/kg ww
Di-n-octyl phthalate	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
1,2-Dichlorobenzene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
1,2-Diphenylhydrazine	0/34	0	nd	nd	28	53 – 88	µg/kg ww
1,3-Dichlorobenzene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
1,4-Dichlorobenzene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
2,4,5-Trichlorophenol	0/34	0	nd	nd	59	110 – 180	µg/kg ww

Table E.6.3-10, cont. Summary statistics for transplanted mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2,4,6-Trichlorophenol	0/34	0	nd	nd	59	110 – 180	µg/kg ww
2,4-Dichlorophenol	0/34	0	nd	nd	10	27 – 44	µg/kg ww
2,4-Dimethylphenol	0/34	0	nd	nd	10	27 – 44	µg/kg ww
2,4-Dinitrophenol	0/34	0	nd	nd	28	53 – 88	µg/kg ww
2,4-Dinitrotoluene	0/34	0	nd	nd	5.9	11 – 18	µg/kg ww
2,6-Dinitrotoluene	0/34	0	nd	nd	5.9	11 – 18	µg/kg ww
2-Chlorophenol	0/34	0	nd	nd	28	53 – 88	µg/kg ww
2-Methylphenol	29/34	85	29	178	80	27 – 41	µg/kg ww
2-Nitroaniline	0/34	0	nd	nd	59	110 – 180	µg/kg ww
2-Nitrophenol	0/34	0	nd	nd	10	27 – 44	µg/kg ww
3,3'-Dichlorobenzidine	0/1	0	nd	nd	20	30 – 30	µg/kg ww
3-Nitroaniline	0/10	0	nd	nd	56	110 – 120	µg/kg ww
4,6-Dinitro-o-cresol	0/34	0	nd	nd	28	53 – 88	µg/kg ww
4-Bromophenyl phenyl ether	0/34	0	nd	nd	5.9	11 – 18	µg/kg ww
4-Chloro-3-methylphenol	0/34	0	nd	nd	28	53 – 88	µg/kg ww
4-Chloroaniline	0/1	0	nd	nd	30	59 – 59	µg/kg ww
4-Chlorophenyl phenyl ether	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
4-Methylphenol	2/34	6	27	172	20	27 – 44	µg/kg ww
4-Nitroaniline	0/4	0	nd	nd	56	110 – 120	µg/kg ww
4-Nitrophenol	0/34	0	nd	nd	28	53 – 88	µg/kg ww
Aniline	0/16	0	nd	nd	27	53 – 59	µg/kg ww
Benzidine	0/1	0	nd	nd	360	710	µg/kg ww
Benzoic acid	34/34	100	659	11,900	3,080	na	µg/kg ww
Benzyl alcohol	5/34	15	85.8	3,450	200	27 – 44	µg/kg ww
bis(2-chloroethoxy)methane	0/34	0	nd	nd	10	27 – 44	µg/kg ww
bis(2-chloroethyl)ether	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
bis(2-chloroisopropyl)ether	0/34	0	nd	nd	28	53 – 88	µg/kg ww
Caffeine	0/34	0	nd	nd	2.8	5.3 – 8.8	µg/kg ww
Carbazole	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Coprostanol	0/34	0	nd	nd	59	110 – 180	µg/kg ww

Table E.6.3-10, cont. Summary statistics for transplanted mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Hexachlorobenzene	0/34	0	nd	nd	8.6	16 – 26	µg/kg ww
Hexachlorobutadiene	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Hexachlorocyclopentadiene	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Hexachloroethane	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Isophorone	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Nitrobenzene	0/34	0	nd	nd	10	27 – 44	µg/kg ww
N-Nitrosodimethylamine	0/34	0	nd	nd	59	110 – 180	µg/kg ww
N-Nitroso-di-n-propylamine	0/34	0	nd	nd	10	27 – 44	µg/kg ww
N-Nitrosodiphenylamine	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Pentachlorophenol	0/34	0	nd	nd	10	27 – 44	µg/kg ww
Phenol	0/34	0	nd	nd	59	110 – 180	µg/kg ww
Polychlorinated biphenyls							
Aroclor-1016	0/32	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1221	0/32	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1232	0/32	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1242	0/32	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1248	0/32	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1254	13/32	41	35.9	73.1	27	13	µg/kg ww
Aroclor-1260	0/32	0	nd	nd	6.5	13	µg/kg ww
Total PCBs	13/32	41	35.9	73.1	27	nc	µg/kg ww
Pesticides							
4,4'-DDD	0/13	0	nd	nd	0.65	1.3	µg/kg ww
4,4'-DDE	0/13	0	nd	nd	0.65	1.3	µg/kg ww
4,4'-DDT	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Total DDTs	0/13	0	nd	nd	0.65	nc	µg/kg ww
Aldrin	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Dieldrin	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Total aldrin/dieldrin	0/13	0	nd	nd	0.65	nc	µg/kg ww
alpha-BHC	0/13	0	nd	nd	0.65	1.3	µg/kg ww
beta-BHC	0/13	0	nd	nd	0.65	1.3	µg/kg ww

Table E.6.3-10, cont. Summary statistics for transplanted mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
gamma-BHC	0/13	0	nd	nd	0.65	1.3	µg/kg ww
delta-BHC	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Chlordane	0/13	0	nd	nd	3.4	6.7	µg/kg ww
alpha-Endosulfan	0/13	0	nd	nd	0.65	1.3	µg/kg ww
beta-Endosulfan	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Endosulfan sulfate	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Endrin	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Endrin aldehyde	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Heptachlor	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Heptachlor epoxide	0/13	0	nd	nd	0.65	1.3	µg/kg ww
Methoxychlor	0/13	0	nd	nd	3.4	6.7	µg/kg ww
Toxaphene	0/13	0	nd	nd	6.5	1.3	µg/kg ww
Conventional parameters							
Lipid	32/32	100	0.250	2.60	1.28	na	% ww

Table E.6.3-11. Summary statistics for wild mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	0/22	0	nd	nd	0.0086	0.010 – 0.020	mg/kg ww
Arsenic	22/22	100	0.34	1.1 J	0.81	na	mg/kg ww
Cadmium	22/22	100	0.19	0.84	0.49	na	mg/kg ww
Chromium	21/22	95	0.10	0.35	0.16	0.050	mg/kg ww
Cobalt	11/11	100	0.030	0.070	0.055	na	mg/kg ww
Copper	22/22	100	0.58	1.7 J	1.2	na	mg/kg ww
Lead	22/22	100	0.13	0.72	0.41	na	mg/kg ww
Mercury	21/21	100	0.0088	0.023	0.013	na	mg/kg ww
Molybdenum	10/10	100	0.023	0.10	0.055	na	mg/kg ww
Nickel	22/22	100	0.051	0.42 J	0.15	na	mg/kg ww
Silver	0/22	0	nd	nd	0.0052	0.010 – 0.012	mg/kg ww
Vanadium	8/8	100	0.058	0.26	0.15	na	mg/kg ww
Zinc	22/22	100	17	44	30	na	mg/kg ww
Organometals							
Monobutyltin as ion	9/11	82	1.8 J	4.9 J	2.3	1.7	µg/kg ww
Dibutyltin as ion	11/11	100	4.0	11	7.3	na	µg/kg ww
Tributyltin as ion	22/22	100	12	37	23	na	µg/kg ww
PAHs							
2-Chloronaphthalene	0/22	0	nd	nd	8.0	16	µg/kg ww
2-Methylnaphthalene	0/22	0	nd	nd	22	43	µg/kg ww
Acenaphthene	0/22	0	nd	nd	5.5	11	µg/kg ww
Acenaphthylene	0/22	0	nd	nd	8.0	16	µg/kg ww
Anthracene	0/22	0	nd	nd	8.0	16	µg/kg ww
Benzo(a)anthracene	11/22	50	17	32	17	16	µg/kg ww
Benzo(a)pyrene	0/22	0	nd	nd	14	27	µg/kg ww
Benzo(b)fluoranthene	1/22	5	43	43	22	43	µg/kg ww
Benzo(g,h,i)perylene	0/22	0	nd	nd	14	27	µg/kg ww
Benzo(k)fluoranthene	0/22	0	nd	nd	22	43	µg/kg ww
Total benzofluoranthenes	1/22	5	43	43	22	nc	µg/kg ww

Table E.6.3-11, cont. Summary statistics for wild mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Chrysene	11/22	50	19	46	21	16	µg/kg ww
Dibenzo(a,h)anthracene	0/22	0	nd	nd	22	43	µg/kg ww
Dibenzofuran	0/22	0	nd	nd	14	27	µg/kg ww
Fluoranthene	21/22	95	17	58	33	16	µg/kg ww
Fluorene	0/22	0	nd	nd	8.0	16	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/22	0	nd	nd	14	27	µg/kg ww
Naphthalene	0/22	0	nd	nd	22	43	µg/kg ww
Phenanthrene	0/22	0	nd	nd	8.0	16	µg/kg ww
Pyrene	13/22	59	17	40	21	16	µg/kg ww
Total HPAH	21/22	95	17	208	82	nc	µg/kg ww
Total LPAH	0/22	0	nd	nd	22	nc	µg/kg ww
Carcinogenic PAHs – Mammal	11/22	50	30	33	23	29	µg/kg ww
Total PAH	21/22	95	17	208	82	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	2/22	9	28	190	17	16	µg/kg ww
Butyl benzyl phthalate	0/22	0	nd	nd	8.0	16	µg/kg ww
Diethyl phthalate	0/22	0	nd	nd	14	27	µg/kg ww
Dimethyl phthalate	0/22	0	nd	nd	5.5	11	µg/kg ww
Di-n-butyl phthalate	0/22	0	nd	nd	14	27	µg/kg ww
Di-n-octyl phthalate	0/22	0	nd	nd	8.0	16	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/22	0	nd	nd	8.0	16	µg/kg ww
1,2-Dichlorobenzene	0/22	0	nd	nd	8.0	16	µg/kg ww
1,2-Diphenylhydrazine	0/22	0	nd	nd	27	53	µg/kg ww
1,3-Dichlorobenzene	0/22	0	nd	nd	8.0	16	µg/kg ww
1,4-Dichlorobenzene	0/22	0	nd	nd	8.0	16	µg/kg ww
2,4,5-Trichlorophenol	0/22	0	nd	nd	55	110	µg/kg ww
2,4,6-Trichlorophenol	0/22	0	nd	nd	55	110	µg/kg ww
2,4-Dichlorophenol	0/22	0	nd	nd	14	27	µg/kg ww
2,4-Dimethylphenol	0/22	0	nd	nd	14	27	µg/kg ww
2,4-Dinitrophenol	0/22	0	nd	nd	27	53	µg/kg ww
2,4-Dinitrotoluene	0/22	0	nd	nd	5.5	11	µg/kg ww

Table E.6.3-11, cont. Summary statistics for wild mussels, edible meat

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
2,6-Dinitrotoluene	0/22	0	nd	nd	5.5	11	µg/kg ww
2-Chlorophenol	0/22	0	nd	nd	27	53	µg/kg ww
2-Methylphenol	18/22	82	28	94	48	27	µg/kg ww
2-Nitroaniline	0/22	0	nd	nd	55	110	µg/kg ww
2-Nitrophenol	0/22	0	nd	nd	14	27	µg/kg ww
3-Nitroaniline	0/8	0	nd	nd	55	110	µg/kg ww
4,6-Dinitro-o-cresol	0/22	0	nd	nd	27	53	µg/kg ww
4-Bromophenyl phenyl ether	0/20	0	nd	nd	5.5	11	µg/kg ww
4-Chloro-3-methylphenol	0/22	0	nd	nd	27	53	µg/kg ww
4-Chlorophenyl phenyl ether	0/22	0	nd	nd	8.0	16	µg/kg ww
4-Methylphenol	0/22	0	nd	nd	14	27	µg/kg ww
4-Nitroaniline	0/14	0	nd	nd	55	110	µg/kg ww
4-Nitrophenol	0/22	0	nd	nd	27	53	µg/kg ww
Aniline	0/19	0	nd	nd	27	53	µg/kg ww
Benzoic acid	22/22	100	790 J	4,000 J	1,700	na	µg/kg ww
Benzyl alcohol	1/22	5	28	28	14	27	µg/kg ww
bis(2-chloroethoxy)methane	0/22	0	nd	nd	14	27	µg/kg ww
bis(2-chloroethyl)ether	0/22	0	nd	nd	8.0	16	µg/kg ww
bis(2-chloroisopropyl)ether	0/22	0	nd	nd	27	53	µg/kg ww
Caffeine	0/22	0	nd	nd	2.7	5.3	µg/kg ww
Carbazole	0/22	0	nd	nd	14	27	µg/kg ww
Coprostanol	0/22	0	nd	nd	55	110	µg/kg ww
Hexachlorobenzene	0/22	0	nd	nd	8.0	16	µg/kg ww
Hexachlorobutadiene	0/22	0	nd	nd	14	27	µg/kg ww
Hexachlorocyclopentadiene	0/22	0	nd	nd	14	27	µg/kg ww
Hexachloroethane	0/21	0	nd	nd	14	27	µg/kg ww
Isophorone	0/22	0	nd	nd	14	27	µg/kg ww
Nitrobenzene	0/22	0	nd	nd	14	27	µg/kg ww
N-Nitrosodimethylamine	0/22	0	nd	nd	55	110	µg/kg ww
N-Nitroso-di-n-propylamine	0/22	0	nd	nd	14	27	µg/kg ww
N-Nitrosodiphenylamine	0/22	0	nd	nd	14	27	µg/kg ww
Pentachlorophenol	0/22	0	nd	nd	14	27	µg/kg ww

Table E.6.3-11, cont. Summary statistics for wild mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Phenol	0/22	0	nd	nd	55	110	µg/kg ww
Polychlorinated biphenyls							
Aroclor-1016	0/22	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1221	0/22	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1232	0/22	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1242	0/22	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1248	0/22	0	nd	nd	6.5	13	µg/kg ww
Aroclor-1254	18/22	82	16	60	34	13	µg/kg ww
Aroclor-1260	0/22	0	nd	nd	6.5	13	µg/kg ww
Total PCBs	18/22	82	16	60	34	nc	µg/kg ww
Pesticides							
4,4'-DDD	0/11	0	nd	nd	0.65	1.3	µg/kg ww
4,4'-DDE	0/11	0	nd	nd	0.65	1.3	µg/kg ww
4,4'-DDT	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Total DDTs	0/11	0	nd	nd	0.65	nc	µg/kg ww
Aldrin	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Dieldrin	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Total aldrin/dieldrin	0/11	0	nd	nd	0.65	nc	µg/kg ww
alpha-BHC	0/11	0	nd	nd	0.65	1.3	µg/kg ww
beta-BHC	0/11	0	nd	nd	0.65	1.3	µg/kg ww
gamma-BHC	0/11	0	nd	nd	0.65	1.3	µg/kg ww
delta-BHC	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Chlordane	0/11	0	nd	nd	3.4	6.7	µg/kg ww
alpha-Endosulfan	0/11	0	nd	nd	0.65	1.3	µg/kg ww
beta-Endosulfan	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Endosulfan sulfate	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Endrin	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Endrin aldehyde	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Heptachlor	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Heptachlor epoxide	0/11	0	nd	nd	0.65	1.3	µg/kg ww
Methoxychlor	0/11	0	nd	nd	3.4	6.7	µg/kg ww
Toxaphene	0/11	0	nd	nd	6.5	13	µg/kg ww

Table E.6.3-11, cont. Summary statistics for wild mussels, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Conventional parameters							
Total solids (estimated)	22/22	100	14.9	14.9	14.9	na	% ww
Lipid	21/21	100	0.29	2.4	0.89	na	% ww

Table E.6.3-12. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	19/24	79	0.001 J	0.007 J	0.003	0.010 – 0.011	mg/kg ww
Arsenic	24/24	100	0.364	1.430	0.738	na	mg/kg ww
Cadmium	24/24	100	0.002 J	0.011	0.005	na	mg/kg ww
Chromium	6/24	25	0.06 J	0.11	0.06	0.10 – 0.11	mg/kg ww
Cobalt	24/24	100	0.0182	0.0377	0.0250	na	mg/kg ww
Copper	24/24	100	0.67	1.22	0.93	na	mg/kg ww
Lead	24/24	100	0.012	0.114	0.054	na	mg/kg ww
Mercury	24/24	100	0.018	0.039	0.029	na	mg/kg ww
Molybdenum	24/24	100	0.0083 J	0.0162	0.012	na	mg/kg ww
Nickel	23/24	96	0.126	0.194	0.156	0.130	mg/kg ww
Selenium	24/24	100	0.14	0.23	0.18	na	mg/kg ww
Silver	24/24	100	0.0015 J	0.0077	0.0042	na	mg/kg ww
Thallium	17/24	71	0.0004 J	0.0007 J	0.001	0.0042 – 0.0043	mg/kg ww
Vanadium	10/24	42	0.1 J	0.2 J	0.1	0.2	mg/kg ww
Zinc	24/24	100	9.95	13.8	11.4	na	mg/kg ww
Organometals							
Monobutyltin as ion	3/24	12	0.44 J	27	1.6	1.0	µg/kg ww
Dibutyltin as ion	24/24	100	2.1	110	8.2	na	µg/kg ww
Tributyltin as ion	24/24	100	23	80	32	na	µg/kg ww
Tetrabutyltin as ion	1/24	4	66	66	3.2	1.0	µg/kg ww
PAHs							
2-Chloronaphthalene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
2-Methylnaphthalene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Acenaphthene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Acenaphthylene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Anthracene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Benzo(a)anthracene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Benzo(a)pyrene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Benzo(b)fluoranthene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Benzo(g,h,i)perylene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Benzo(k)fluoranthene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Total benzofluoranthenes	0/24	0	nd	nd	140	nc	µg/kg ww
Chrysene	1/24	4	9.0 J	9.0 J	140	40 – 400	µg/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Dibenzofuran	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Fluoranthene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Fluorene	2/24	8	6.5 J	7.7 J	140	40 – 400	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Naphthalene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Phenanthrene	0/24	0	nd	nd	140	15 – 400	µg/kg ww
Pyrene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Total HPAH	1/24	4	9.0 J	9.0 J	140	nc	µg/kg ww
Total LPAH	2/24	8	6.5 J	7.7 J	140	nc	µg/kg ww
Carcinogenic PAHs – Mammal	1/24	4	36 J	36 J	130	36 – 360	µg/kg ww
Total PAH	3/24	12	6.5 J	9.0 J	140	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/24	0	nd	nd	1,700	490 – 5,000	µg/kg ww
Butyl benzyl phthalate	0/24	0	nd	nd	1,400	400 – 4,000	µg/kg ww
Diethyl phthalate	5/24	21	18 J	180	81	21 – 790	µg/kg ww
Dimethyl phthalate	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Di-n-butyl phthalate	1/24	4	1,300	1,300	490	200 – 1,300	µg/kg ww
Di-n-octyl phthalate	0/24	0	nd	nd	1,400	400 – 4,000	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
1,2-Dichlorobenzene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
1,3-Dichlorobenzene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
1,4-Dichlorobenzene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
2,4,5-Trichlorophenol	1/24	4	540 J	540 J	280	79 – 800	µg/kg ww
2,4,6-Trichlorophenol	1/24	4	270 J	270 J	270	79 – 800	µg/kg ww
2,4-Dichlorophenol	1/24	4	220 J	220 J	270	79 – 800	µg/kg ww
2,4-Dimethylphenol	1/24	4	210 J	210 J	270	79 – 800	µg/kg ww
2,4-Dinitrophenol	0/20	0	nd	nd	3,300	790 – 8,000	µg/kg ww
2,4-Dinitrotoluene	0/24	0	nd	nd	700	200 – 2,000	µg/kg ww
2,6-Dinitrotoluene	1/24	4	7.6 J	7.6 J	700	200 – 2,000	µg/kg ww
2-Chlorophenol	0/24	0	nd	nd	280	79 – 800	µg/kg ww
2-Methylphenol	0/24	0	nd	nd	280	79 – 800	µg/kg ww
2-Nitroaniline	0/24	0	nd	nd	700	200 – 2,000	µg/kg ww
2-Nitrophenol	0/24	0	nd	nd	140	40 – 400	µg/kg ww
3,3'-Dichlorobenzidine	0/24	0	nd	nd	7,000	2,000 – 20,000	µg/kg ww
3-Nitroaniline	0/24	0	nd	nd	1,400	400 – 4,000	µg/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/24	0	nd	nd	2,800	790 – 8,000	µg/kg ww
4-Bromophenyl phenyl ether	0/24	0	nd	nd	140	40 – 400	µg/kg ww
4-Chloro-3-methylphenol	1/24	4	860 J	860 J	690	200 – 2,000	µg/kg ww
4-Chloroaniline	1/24	4	79 J	79 J	660	200 – 2,000	µg/kg ww
4-Chlorophenyl phenyl ether	1/24	4	5.1 J	5.1 J	140	40 – 400	µg/kg ww
4-Methylphenol	4/24	17	20 J	380 J	280	80 – 800	µg/kg ww
4-Nitroaniline	0/24	0	nd	nd	700	200 – 2,000	µg/kg ww
4-Nitrophenol	1/24	4	3,300 J	3,300 J	1,500	400 – 4,000	µg/kg ww
Aniline	0/24	0	nd	nd	2,800	790 – 8,000	µg/kg ww
Benzidine	0/24	0	nd	nd	18,000	5,000 – 50,000	µg/kg ww
Benzoic acid	23/24	96	890	6,800 J	4,600	800	µg/kg ww
Benzyl alcohol	7/24	29	24 J	2,100	240	40 – 400	µg/kg ww
bis(2-chloroethoxy)methane	0/24	0	nd	nd	140	40 – 400	µg/kg ww
bis(2-chloroethyl)ether	0/24	0	nd	nd	140	40 – 400	µg/kg ww
bis(2-chloroisopropyl)ether	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Carbazole	0/24	0	nd	nd	700	200 – 2,000	µg/kg ww
Hexachlorobenzene	2/24	8	1.2 JN	1.3 JN	0.58	1.0 – 1.4	µg/kg ww
Hexachlorobutadiene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Hexachlorocyclopentadiene	0/24	0	nd	nd	18,000	5,000 – 50,000	µg/kg ww
Hexachloroethane	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Isophorone	1/24	4	7.3 J	7.3 J	140	40 – 400	µg/kg ww
Nitrobenzene	0/24	0	nd	nd	140	40 – 400	µg/kg ww
N-Nitrosodimethylamine	0/24	0	nd	nd	280	79 – 800	µg/kg ww
N-Nitroso-di-n-propylamine	1/24	4	170 J	170 J	140	40 – 400	µg/kg ww
N-Nitrosodiphenylamine	0/24	0	nd	nd	140	40 – 400	µg/kg ww
Pentachlorophenol	3/24	12	43 J	2,600 J	1,400	400 – 4,000	µg/kg ww
Phenol	2/24	8	17 J	200 J	330	98 – 1,000	µg/kg ww
Polychlorinated biphenyls							
PCB-001	6/8	75	2.19 J	7.19	3.78	3.20 – 7.38	ng/kg ww
PCB-002	3/8	38	0.488 J	1.01 J	0.724	0.243 – 3.33	ng/kg ww
PCB-003	5/8	62	0.538 J	1.25 J	1.21	0.460 – 7.31	ng/kg ww
PCB-004	8/8	100	41.8	124	85.6	na	ng/kg ww
PCB-005	6/8	75	1.37 J	6.07	3.11	5.27 – 9.10	ng/kg ww
PCB-006	8/8	100	38.6	105	74.7	na	ng/kg ww
PCB-007	6/8	75	2.21 J	6.18	4.08	4.90 – 8.72	ng/kg ww
PCB-008	8/8	100	62.1	274	152	na	ng/kg ww
PCB-009	8/8	100	5.24	22.6	13.0	na	ng/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-010	6/8	75	2.58 J	5.96	4.53	5.10 – 8.81	ng/kg ww
PCB-011	1/8	12	3.10	3.10	1.97	1.28 – 9.41	ng/kg ww
PCB-012	6/8	75	2.77 CJ	7.11 C	4.69	5.27 – 9.12	ng/kg ww
PCB-013	6/8	75	C12	C12	nc	0	ng/kg ww
PCB-014	0/8	0	nd	nd	1.02	0.0994 – 8.76	ng/kg ww
PCB-015	8/8	100	8.27	33.3 J	22.5	na	ng/kg ww
PCB-016	8/8	100	105	395	241	na	ng/kg ww
PCB-017	8/8	100	301	805	549	na	ng/kg ww
PCB-018	8/8	100	634 C	1,840 C	1,280	na	ng/kg ww
PCB-019	8/8	100	61.4	164	134	na	ng/kg ww
PCB-020	8/8	100	1,920 C	7,350 C	4,470	na	ng/kg ww
PCB-021	8/8	100	206 C	998 C	529	na	ng/kg ww
PCB-022	8/8	100	165	640	388	na	ng/kg ww
PCB-023	5/8	62	1.09 J	3.94	2.37	4.00 – 5.04	ng/kg ww
PCB-024	7/8	88	11.9	30.5	17.5	0.924	ng/kg ww
PCB-025	8/8	100	100	321	195	na	ng/kg ww
PCB-026	8/8	100	629 C	1,860 C	1,190	na	ng/kg ww
PCB-027	8/8	100	114	259	200	na	ng/kg ww
PCB-028	8/8	100	C20	C20	nc	na	ng/kg ww
PCB-029	8/8	100	C26	C26	nc	na	ng/kg ww
PCB-030	8/8	100	C18	C18	nc	na	ng/kg ww
PCB-031	8/8	100	635	3,090	1,830	na	ng/kg ww
PCB-032	8/8	100	264	749	528	na	ng/kg ww
PCB-033	8/8	100	C21	C21	nc	na	ng/kg ww
PCB-034	8/8	100	10.8	24.3 J	18.6	na	ng/kg ww
PCB-035	0/8	0	nd	nd	1.17	0.255 – 5.34	ng/kg ww
PCB-036	0/8	0	nd	nd	1.03	0.228 – 4.77	ng/kg ww
PCB-037	8/8	100	35.1	170	94.0	na	ng/kg ww
PCB-038	5/8	62	2.39 J	8.62	4.65	3.88 – 4.99	ng/kg ww
PCB-039	6/8	75	6.93	29.7	13.9	3.90 – 4.70	ng/kg ww
PCB-040	8/8	100	756 C	2,180 C	1,690	na	ng/kg ww
PCB-041	8/8	100	C40	C40	nc	na	ng/kg ww
PCB-042	8/8	100	547	2,160	1,280	na	ng/kg ww
PCB-043	8/8	100	174	421	249	na	ng/kg ww
PCB-044	8/8	100	4,020 C	14,100 C	8,320	na	ng/kg ww
PCB-045	8/8	100	222 C	571 C	473	na	ng/kg ww
PCB-046	8/8	100	76.7	224	174	na	ng/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-047	8/8	100	C44	C44	nc	na	ng/kg ww
PCB-048	8/8	100	351	930	679	na	ng/kg ww
PCB-049	8/8	100	4,620 C	15,000 C	8,070	na	ng/kg ww
PCB-050	8/8	100	420 C	1,250 C	839	na	ng/kg ww
PCB-051	8/8	100	C45	C45	nc	na	ng/kg ww
PCB-052	8/8	100	9,040	30,100	16,900	na	ng/kg ww
PCB-053	8/8	100	C50	C50	nc	na	ng/kg ww
PCB-054	8/8	100	5.08	12.5 J	9.82	na	ng/kg ww
PCB-055	1/8	12	123	123	18.5	3.22 – 12.4	ng/kg ww
PCB-056	8/8	100	168	1,040	558	na	ng/kg ww
PCB-057	8/8	100	45.3	158	75.5	na	ng/kg ww
PCB-058	6/8	75	24.2	46.5	26.9	4.19 – 8.81	ng/kg ww
PCB-059	8/8	100	442 C	1,320 C	820	na	ng/kg ww
PCB-060	8/8	100	828	3,230	1,830	na	ng/kg ww
PCB-061	8/8	100	4,650 C	16,400 C	10,300	na	ng/kg ww
PCB-062	8/8	100	C59	C59	nc	na	ng/kg ww
PCB-063	8/8	100	299	793	592	na	ng/kg ww
PCB-064	8/8	100	1,440	4,610	2,960	na	ng/kg ww
PCB-065	8/8	100	C44	C44	nc	na	ng/kg ww
PCB-066	8/8	100	4,360	14,700	9,110	na	ng/kg ww
PCB-067	8/8	100	38.1	143	91.3	na	ng/kg ww
PCB-068	8/8	100	18.4 J	87.8	39.4	na	ng/kg ww
PCB-069	8/8	100	C49	C49	nc	na	ng/kg ww
PCB-070	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-071	8/8	100	C40	C40	nc	na	ng/kg ww
PCB-072	8/8	100	175	659	304	na	ng/kg ww
PCB-073	1/8	12	130	130	16.5	0.0611 – 3.65	ng/kg ww
PCB-074	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-075	8/8	100	C59	C59	nc	na	ng/kg ww
PCB-076	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-077	8/8	100	54.2	490	231	na	ng/kg ww
PCB-078	0/8	0	nd	nd	4.55	3.41 – 21.7	ng/kg ww
PCB-079	8/8	100	84.6	495	265	na	ng/kg ww
PCB-080	0/8	0	nd	nd	4.10	3.14 – 18.6	ng/kg ww
PCB-081	8/8	100	9.12	23.9 J	15.8	na	ng/kg ww
PCB-082	8/8	100	505	2,220	1,110	na	ng/kg ww
PCB-083	8/8	100	14,600 C	53,900 C	23,600	na	ng/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-084	8/8	100	1,180	7,300	2,920	na	ng/kg ww
PCB-085	8/8	100	2,390 C	9,150 C	4,450	na	ng/kg ww
PCB-086	8/8	100	8,110 C	30,300 C	14,000	na	ng/kg ww
PCB-087	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-088	8/8	100	1,600 C	7,130 C	2,940	na	ng/kg ww
PCB-089	6/8	75	19.5	87.6	41.2	0.746 – 1.13	ng/kg ww
PCB-090	8/8	100	20,100 C	71,500 C	33,900	na	ng/kg ww
PCB-091	8/8	100	C88	C88	nc	na	ng/kg ww
PCB-092	8/8	100	4,390	18,000	8,120	na	ng/kg ww
PCB-093	8/8	100	8,140 C	40,900 C	17,600	na	ng/kg ww
PCB-094	8/8	100	20.7	112	49.3	na	ng/kg ww
PCB-095	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-096	8/8	100	37.7	163	75.1	na	ng/kg ww
PCB-097	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-098	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-099	8/8	100	C83	C83	nc	na	ng/kg ww
PCB-100	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-101	8/8	100	C90	C90	nc	na	ng/kg ww
PCB-102	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-103	8/8	100	256	1,120	442	na	ng/kg ww
PCB-104	8/8	100	1.79 J	5.26 J	3.12	na	ng/kg ww
PCB-105	8/8	100	5,880	19,600	10,400	na	ng/kg ww
PCB-106	0/8	0	nd	nd	5.57	3.58 – 21.1	ng/kg ww
PCB-107	8/8	100	194 C	786 C	508	na	ng/kg ww
PCB-108	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-109	8/8	100	1,700	5,940	2,920	na	ng/kg ww
PCB-110	8/8	100	13,600 C	56,200 C	24,200	na	ng/kg ww
PCB-111	8/8	100	30.1	129	50.0	na	ng/kg ww
PCB-112	0/8	0	nd	nd	1.77	0.501 – 8.97	ng/kg ww
PCB-113	8/8	100	C90	C90	nc	na	ng/kg ww
PCB-114	8/8	100	413	1,230	710	na	ng/kg ww
PCB-115	8/8	100	C110	C110	nc	na	ng/kg ww
PCB-116	8/8	100	C85	C85	nc	na	ng/kg ww
PCB-117	8/8	100	C85	C85	nc	na	ng/kg ww
PCB-118	8/8	100	19,800	70,400	34,100	na	ng/kg ww
PCB-119	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-120	8/8	100	130	594	229	na	ng/kg ww

Table E.6.3-12, cont.   Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-121	7/8	88	9.59	59.7	17.7	3.09	ng/kg ww
PCB-122	3/8	38	56.7	75.5	27.6	3.92 – 11.4	ng/kg ww
PCB-123	8/8	100	212 J	602	402	na	ng/kg ww
PCB-124	8/8	100	C107	C107	nc	na	ng/kg ww
PCB-125	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-126	8/8	100	25.9	66.5	48.2	na	ng/kg ww
PCB-127	8/8	100	44.2	190	81.5	na	ng/kg ww
PCB-128	8/8	100	3,630 C	19,200 C	6,720	na	ng/kg ww
PCB-129	8/8	100	37,600 C	178,000 C	73,500	na	ng/kg ww
PCB-130	8/8	100	2,050	8,970	3,820	na	ng/kg ww
PCB-131	8/8	100	161	673	274	na	ng/kg ww
PCB-132	8/8	100	3,790	22,400	7,940	na	ng/kg ww
PCB-133	8/8	100	755	3,950	1,510	na	ng/kg ww
PCB-134	8/8	100	922 C	4,600 C	1,800	na	ng/kg ww
PCB-135	8/8	100	9,810 C	55,700 C	21,700	na	ng/kg ww
PCB-136	8/8	100	1,770	10,700	3,850	na	ng/kg ww
PCB-137	8/8	100	1,580	5,660	2,450	na	ng/kg ww
PCB-138	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-139	8/8	100	496 C	2,210 C	849	na	ng/kg ww
PCB-140	8/8	100	C139	C139	nc	na	ng/kg ww
PCB-141	8/8	100	4,270	23,300	9,080	na	ng/kg ww
PCB-142	0/8	0	nd	nd	13.2	4.31 – 57.0	ng/kg ww
PCB-143	8/8	100	C134	C134	nc	na	ng/kg ww
PCB-144	8/8	100	1,160	5,770	2,270	na	ng/kg ww
PCB-145	8/8	100	3.08	15.3 J	6.26	na	ng/kg ww
PCB-146	8/8	100	7,340	36,500	15,100	na	ng/kg ww
PCB-147	8/8	100	13,500 C	89,900 C	33,300	na	ng/kg ww
PCB-148	8/8	100	64.7	558	160	na	ng/kg ww
PCB-149	8/8	100	C147	C147	nc	na	ng/kg ww
PCB-150	8/8	100	39.5	231	81.5	na	ng/kg ww
PCB-151	8/8	100	C135	C135	nc	na	ng/kg ww
PCB-152	8/8	100	8.33	37.9	14.9	na	ng/kg ww
PCB-153	8/8	100	41,800 C	206,000 C	82,800	na	ng/kg ww
PCB-154	8/8	100	C135	C135	nc	na	ng/kg ww
PCB-155	8/8	100	3.62 J	16.2 J	7.05	na	ng/kg ww
PCB-156	8/8	100	3,570 C	15,500 C	6,650	na	ng/kg ww
PCB-157	8/8	100	C156	C156	nc	na	ng/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-158	8/8	100	3,270	14,900	5,790	na	ng/kg ww
PCB-159	8/8	100	79.6	1,270	350	na	ng/kg ww
PCB-160	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/8	0	nd	nd	9.63	3.13 – 41.3	ng/kg ww
PCB-162	8/8	100	105	375	181	na	ng/kg ww
PCB-163	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-164	8/8	100	1,130	6,920	2,520	na	ng/kg ww
PCB-165	6/8	75	24.1	142	47.7	37.5 – 46.4	ng/kg ww
PCB-166	8/8	100	C128	C128	nc	na	ng/kg ww
PCB-167	8/8	100	1,050	4,610	2,170	na	ng/kg ww
PCB-168	8/8	100	C153	C153	nc	na	ng/kg ww
PCB-169	4/8	50	1.43	4.84	4.79	3.62 – 25.3	ng/kg ww
PCB-170	8/8	100	6,980	58,500	18,600	na	ng/kg ww
PCB-171	8/8	100	1,970 C	16,700 C	5,280	na	ng/kg ww
PCB-172	8/8	100	1,210	10,700	3,350	na	ng/kg ww
PCB-173	8/8	100	C171	C171	nc	na	ng/kg ww
PCB-174	8/8	100	1,720	27,500	7,440	na	ng/kg ww
PCB-175	8/8	100	279	2,650	814	na	ng/kg ww
PCB-176	8/8	100	410	4,760	1,380	na	ng/kg ww
PCB-177	8/8	100	4,010	38,300	11,900	na	ng/kg ww
PCB-178	8/8	100	1,940	16,200	5,420	na	ng/kg ww
PCB-179	8/8	100	1,800	18,500	5,410	na	ng/kg ww
PCB-180	8/8	100	18,500 C	180,000 C	54,400	na	ng/kg ww
PCB-181	8/8	100	58.4	282 J	103	na	ng/kg ww
PCB-182	8/8	100	62.4	357	137	na	ng/kg ww
PCB-183	8/8	100	5,600 C	50,400 C	15,900	na	ng/kg ww
PCB-184	7/8	88	5.07	17.9 J	7.25	1.07	ng/kg ww
PCB-185	8/8	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/8	0	nd	nd	0.390	0.222 – 2.90	ng/kg ww
PCB-187	8/8	100	11,600	104,000	33,400	na	ng/kg ww
PCB-188	8/8	100	15.2	80.7	31.5	na	ng/kg ww
PCB-189	8/8	100	249	1,750	583	na	ng/kg ww
PCB-190	8/8	100	1,520	14,100	4,290	na	ng/kg ww
PCB-191	8/8	100	332	2,650	858	na	ng/kg ww
PCB-192	0/8	0	nd	nd	0.461	0.248 – 3.61	ng/kg ww
PCB-193	8/8	100	C180	C180	nc	na	ng/kg ww
PCB-194	8/8	100	2,030	27,600	7,030	na	ng/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-195	8/8	100	828	12,400	3,110	na	ng/kg ww
PCB-196	8/8	100	1,110	17,700	4,280	na	ng/kg ww
PCB-197	8/8	100	184 C	3,050 C	742	na	ng/kg ww
PCB-198	8/8	100	2,070 C	28,800 C	7,510	na	ng/kg ww
PCB-199	8/8	100	C198	C198	nc	na	ng/kg ww
PCB-200	8/8	100	C197	C197	nc	na	ng/kg ww
PCB-201	8/8	100	304	3,760	970	na	ng/kg ww
PCB-202	8/8	100	683	6,170	1,930	na	ng/kg ww
PCB-203	8/8	100	1,680	23,000	5,860	na	ng/kg ww
PCB-204	8/8	100	0.448 J	4.03 J	1.51	na	ng/kg ww
PCB-205	8/8	100	108	1,350	341	na	ng/kg ww
PCB-206	8/8	100	381	5,070	1,260	na	ng/kg ww
PCB-207	8/8	100	51.0	785	182	na	ng/kg ww
PCB-208	8/8	100	93.7	797	257	na	ng/kg ww
PCB-209	8/8	100	39.3	118	72.3	na	ng/kg ww
Total PCB congeners	8/8	100	349,600 J	1,907,000 J	749,000	nc	ng/kg ww
Aroclor-1016	0/28	0	nd	nd	18	10 – 100	µg/kg ww
Aroclor-1221	0/28	0	nd	nd	29	20 – 200	µg/kg ww
Aroclor-1232	0/28	0	nd	nd	18	10 – 100	µg/kg ww
Aroclor-1242	0/28	0	nd	nd	18	10 – 100	µg/kg ww
Aroclor-1248	22/28	79	68	270	120	100	µg/kg ww
Aroclor-1254	28/28	100	190	880	350	na	µg/kg ww
Aroclor-1260	28/28	100	150	1,600	440	na	µg/kg ww
Total PCBs	28/28	100	430	2,800	900	nc	µg/kg ww
PCB TEQ – Bird	8/8	100	7.60 J	34.60 J	20.1	na	ng/kg ww
PCB TEQ – Fish	8/8	100	0.2960 J	0.9320	0.548	na	ng/kg ww
PCB TEQ – Mammal	8/8	100	3.58 J	10.20	6.64	na	ng/kg ww
Pesticides							
2,4'-DDD	1/24	4	23 JN	23 JN	3.3	2.4 – 16	µg/kg ww
2,4'-DDE	0/24	0	nd	nd	0.97	1.0 – 12	µg/kg ww
2,4'-DDT	24/24	100	19 JN	120 JN	43	na	µg/kg ww
4,4'-DDD	23/24	96	1.1 JN	7.3 JN	2.7	2.8	µg/kg ww
4,4'-DDE	21/24	88	3.4 JN	29 JN	5.9	3.5 – 5.6	µg/kg ww
4,4'-DDT	23/24	96	11 JN	99 JN	32	20	µg/kg ww
Total DDTs	24/24	100	33 JN	220 JN	84	nc	µg/kg ww
Aldrin	0/24	0	nd	nd	0.50	1.0	µg/kg ww

Table E.6.3-12, cont. Summary statistics for Pacific staghorn sculpin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dieldrin	1/24	4	0.82 JN	0.82 JN	0.58	1.0 – 2.0	µg/kg ww
Total aldrin/dieldrin	1/24	4	0.82 JN	0.82 JN	0.58	nc	µg/kg ww
alpha-BHC	3/24	12	0.20 JN	0.66 JN	0.50	1.0	µg/kg ww
beta-BHC	7/24	29	0.27 JN	1.0 JN	0.54	1.0 – 2.0	µg/kg ww
gamma-BHC	1/24	4	5.6 JN	5.6 JN	0.71	1.0	µg/kg ww
delta-BHC	0/24	0	nd	nd	0.50	1.0	µg/kg ww
alpha-Chlordane	8/24	33	1.1 JN	7.3 JN	1.1	1.0 – 2.7	µg/kg ww
gamma-Chlordane	24/24	100	5.5 JN	27 JN	11	na	µg/kg ww
alpha-Endosulfan	11/24	46	1.0 JN	3.6 JN	1.3	1.0 – 10	µg/kg ww
beta-Endosulfan	5/24	21	4.7 JN	6.4 JN	2.6	1.1 – 13	µg/kg ww
Endosulfan sulfate	0/24	0	nd	nd	0.50	1.0	µg/kg ww
Endrin	1/24	4	36 JN	36 JN	2.3	1.0 – 4.1	µg/kg ww
Endrin aldehyde	6/24	25	1.2 JN	4.8 JN	1.3	1.0 – 5.3	µg/kg ww
Endrin ketone	1/24	4	0.60 JN	0.60 JN	1.3	1.0 – 16	µg/kg ww
Heptachlor	2/24	8	2.1 JN	2.7 JN	0.76	1.0 – 1.9	µg/kg ww
Heptachlor epoxide	0/24	0	nd	nd	0.50	1.0	µg/kg ww
Methoxychlor	0/24	0	nd	nd	0.64	1.0 – 4.2	µg/kg ww
Mirex	0/24	0	nd	nd	0.50	1.0	µg/kg ww
Toxaphene	0/24	0	nd	nd	210	160 – 1,900	µg/kg ww
Total chlordane	24/24	100	5.5 JN	27 JN	12	nc	µg/kg ww
Conventional parameters							
Total solids	28/28	100	19.5	22.0	21.0	na	% ww
Lipid	28/28	100	1.18	2.7	2.1	na	% ww

Table E.6.3-13. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	1/1	100	0.0016 J	0.0016 J	0.0016	na	mg/kg ww
Arsenic	1/1	100	0.563	0.563	0.563	na	mg/kg ww
Arsenic (inorganic)	0/1	0	nd	nd	0.0050	0.010	mg/kg ww
Cadmium	0/1	0	nd	nd	0.0023	0.0046	mg/kg ww
Chromium	0/1	0	nd	nd	0.060	0.12	mg/kg ww
Cobalt	1/1	100	0.0054	0.0054	0.0054	na	mg/kg ww
Copper	1/1	100	1.100	1.100	1.100	na	mg/kg ww
Lead	1/1	100	0.022	0.022	0.022	na	mg/kg ww
Mercury	1/1	100	0.040	0.040	0.040	na	mg/kg ww
Molybdenum	1/1	100	0.0026 J	0.0026 J	0.0026	na	mg/kg ww
Nickel	1/1	100	0.052	0.052	0.052	na	mg/kg ww
Selenium	1/1	100	0.12	0.12	0.12	na	mg/kg ww
Silver	0/1	0	nd	nd	0.0023	0.0046	mg/kg ww
Thallium	0/1	0	nd	nd	0.0023	0.0046	mg/kg ww
Vanadium	0/1	0	nd	nd	0.1	0.2	mg/kg ww
Zinc	1/1	100	7.47	7.47	7.47	na	mg/kg ww
Organometals							
Monobutyltin as ion	0/1	0	nd	nd	0.75	1.5	µg/kg ww
Dibutyltin as ion	1/1	100	1.5 J	1.5 J	1.5	na	µg/kg ww
Tributyltin as ion	1/1	100	4.8	4.8	4.8	na	µg/kg ww
Tetrabutyltin as ion	0/1	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/1	0	nd	nd	290	580	µg/kg ww
2-Methylnaphthalene	1/1	100	2.0	2.0	2.0	na	µg/kg ww
Acenaphthene	1/1	100	5.3	5.3	5.3	na	µg/kg ww
Acenaphthylene	0/1	0	nd	nd	0.13	0.26	µg/kg ww
Anthracene	1/1	100	0.82	0.82	0.82	na	µg/kg ww
Benzo(a)anthracene	1/1	100	0.13 J	0.13 J	0.13	na	µg/kg ww
Benzo(a)pyrene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Benzo(b)fluoranthene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Benzo(g,h,i)perylene	1/1	100	0.16 J	0.16 J	0.16	na	µg/kg ww
Benzo(k)fluoranthene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Total benzofluoranthenes	0/1	0	nd	nd	0.25	nc	µg/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency: Ratio	%	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Chrysene	1/1	100	0.51	0.51	0.51	na	µg/kg ww
Dibenzo(a,h)anthracene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Dibenzofuran	1/1	100	3.1	3.1	3.1	na	µg/kg ww
Fluoranthene	1/1	100	3.1	3.1	3.1	na	µg/kg ww
Fluorene	1/1	100	3.3	3.3	3.3	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	1/1	100	0.11 J	0.11 J	0.11	na	µg/kg ww
Naphthalene	1/1	100	1.6	1.6	1.6	na	µg/kg ww
Phenanthrene	1/1	100	7.3	7.3	7.3	na	µg/kg ww
Pyrene	1/1	100	1.2	1.2	1.2	na	µg/kg ww
Total HPAH	1/1	100	5.2 J	5.2 J	5.2	nc	µg/kg ww
Total LPAH	1/1	100	18.3	18.3	18	nc	µg/kg ww
Carcinogenic PAHs – Mammal	1/1	100	0.43 J	0.43 J	0.43	na	µg/kg ww
Total PAH	1/1	100	23.5 J	23.5 J	24	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/1	0	nd	nd	34	67	µg/kg ww
Butyl benzyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Diethyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Dimethyl phthalate	0/1	0	nd	nd	290	580	µg/kg ww
Di-n-butyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Di-n-octyl phthalate	0/1	0	nd	nd	1,500	2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
1,2-Dichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
1,3-Dichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
1,4-Dichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
2,4,5-Trichlorophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2,4,6-Trichlorophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2,4-Dichlorophenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2,4-Dimethylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2,4-Dinitrophenol	0/1	0	nd	nd	6,000	12,000	µg/kg ww
2,4-Dinitrotoluene	0/1	0	nd	nd	600	1,200	µg/kg ww
2,6-Dinitrotoluene	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Chlorophenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Methylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Nitroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2-Nitrophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/1	0	nd	nd	15,000	29,000	µg/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
3-Nitroaniline	0/1	0	nd	nd	2,900	5,800	µg/kg ww
4,6-Dinitro-o-cresol	0/1	0	nd	nd	2,900	5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/1	0	nd	nd	290	580	µg/kg ww
4-Chloro-3-methylphenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Chloroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/1	0	nd	nd	290	580	µg/kg ww
4-Methylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
4-Nitroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Nitrophenol	0/1	0	nd	nd	2,900	5,800	µg/kg ww
Aniline	0/1	0	nd	nd	6,000	12,000	µg/kg ww
Benzoic acid	1/1	100	5,700 J	5,700 J	5,700	na	µg/kg ww
Benzyl alcohol	1/1	100	180 J	180 J	180	na	µg/kg ww
bis(2-chloroethoxy)methane	0/1	0	nd	nd	290	580	µg/kg ww
bis(2-chloroethyl)ether	0/1	0	nd	nd	290	580	µg/kg ww
bis(2-chloroisopropyl)ether	0/1	0	nd	nd	290	580	µg/kg ww
Carbazole	0/1	0	nd	nd	1,500	2,900	µg/kg ww
Hexachlorobenzene	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Hexachlorobutadiene	0/1	0	nd	nd	290	580	µg/kg ww
Hexachlorocyclopentadiene	0/1	0	nd	nd	36,000	72,000	µg/kg ww
Hexachloroethane	0/1	0	nd	nd	290	580	µg/kg ww
Isophorone	0/1	0	nd	nd	290	580	µg/kg ww
Nitrobenzene	0/1	0	nd	nd	290	580	µg/kg ww
N-Nitrosodimethylamine	0/1	0	nd	nd	1,500	2,900	µg/kg ww
N-Nitroso-di-n-propylamine	0/1	0	nd	nd	290	580	µg/kg ww
N-Nitrosodiphenylamine	0/1	0	nd	nd	290	580	µg/kg ww
Pentachlorophenol	0/1	0	nd	nd	3.4	6.7	µg/kg ww
Phenol	0/1	0	nd	nd	750	1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	1/1	100	1.84 J	1.84 J	1.84	na	ng/kg ww
PCB-002	1/1	100	0.454 J	0.454 J	0.454	na	ng/kg ww
PCB-003	1/1	100	0.767 J	0.767 J	0.767	na	ng/kg ww
PCB-004	1/1	100	12.9	12.9	12.9	na	ng/kg ww
PCB-005	1/1	100	0.402 J	0.402 J	0.402	na	ng/kg ww
PCB-006	1/1	100	14.6	14.6	14.6	na	ng/kg ww
PCB-007	1/1	100	2.25 J	2.25 J	2.25	na	ng/kg ww
PCB-008	1/1	100	21.8	21.8	21.8	na	ng/kg ww
PCB-009	1/1	100	13.9	13.9	13.9	na	ng/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-010	1/1	100	1.72 J	1.72 J	1.72	na	ng/kg ww
PCB-011	1/1	100	2.98 J	2.98 J	2.98	na	ng/kg ww
PCB-012	1/1	100	2.93 CJ	2.93 CJ	2.93	na	ng/kg ww
PCB-013	1/1	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/1	0	nd	nd	0.136	0.271	ng/kg ww
PCB-015	1/1	100	13.6	13.6	13.6	na	ng/kg ww
PCB-016	1/1	100	14.9	14.9	14.9	na	ng/kg ww
PCB-017	1/1	100	63.5	63.5	63.5	na	ng/kg ww
PCB-018	1/1	100	443 C	443 C	443	na	ng/kg ww
PCB-019	1/1	100	20.6	20.6	20.6	na	ng/kg ww
PCB-020	1/1	100	2,150 C	2,150 C	2,150	na	ng/kg ww
PCB-021	1/1	100	120 C	120 C	120	na	ng/kg ww
PCB-022	1/1	100	123	123	123	na	ng/kg ww
PCB-023	1/1	100	1.44 J	1.44 J	1.44	na	ng/kg ww
PCB-024	1/1	100	10.3	10.3	10.3	na	ng/kg ww
PCB-025	1/1	100	295	295	295	na	ng/kg ww
PCB-026	1/1	100	1,050 C	1,050 C	1,050	na	ng/kg ww
PCB-027	1/1	100	41.2	41.2	41.2	na	ng/kg ww
PCB-028	1/1	100	C20	C20	nc	na	ng/kg ww
PCB-029	1/1	100	C26	C26	nc	na	ng/kg ww
PCB-030	1/1	100	C18	C18	nc	na	ng/kg ww
PCB-031	1/1	100	1,570	1,570	1,570	na	ng/kg ww
PCB-032	1/1	100	235	235	235	na	ng/kg ww
PCB-033	1/1	100	C21	C21	nc	na	ng/kg ww
PCB-034	1/1	100	9.77	9.77	9.77	na	ng/kg ww
PCB-035	0/1	0	nd	nd	0.565	1.13	ng/kg ww
PCB-036	0/1	0	nd	nd	0.525	1.05	ng/kg ww
PCB-037	1/1	100	60.6	60.6	60.6	na	ng/kg ww
PCB-038	0/1	0	nd	nd	0.530	1.06	ng/kg ww
PCB-039	1/1	100	1.95 J	1.95 J	1.95	na	ng/kg ww
PCB-040	1/1	100	329 C	329 C	329	na	ng/kg ww
PCB-041	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-042	1/1	100	201	201	201	na	ng/kg ww
PCB-043	0/1	0	nd	nd	0.0975	0.195	ng/kg ww
PCB-044	1/1	100	2,670 C	2,670 C	2,670	na	ng/kg ww
PCB-045	1/1	100	122 C	122 C	122	na	ng/kg ww
PCB-046	1/1	100	38.9	38.9	38.9	na	ng/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-047	1/1	100	C44	C44	nc	na	ng/kg ww
PCB-048	1/1	100	182	182	182	na	ng/kg ww
PCB-049	1/1	100	3,560 C	3,560 C	3,560	na	ng/kg ww
PCB-050	1/1	100	294 C	294 C	294	na	ng/kg ww
PCB-051	1/1	100	C45	C45	nc	na	ng/kg ww
PCB-052	1/1	100	9,050	9,050	9,050	na	ng/kg ww
PCB-053	1/1	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/1	100	3.43 J	3.43 J	3.43	na	ng/kg ww
PCB-055	0/1	0	nd	nd	3.42	6.84	ng/kg ww
PCB-056	1/1	100	153	153	153	na	ng/kg ww
PCB-057	1/1	100	59.3	59.3	59.3	na	ng/kg ww
PCB-058	1/1	100	30.0	30.0	30.0	na	ng/kg ww
PCB-059	1/1	100	374 C	374 C	374	na	ng/kg ww
PCB-060	1/1	100	549	549	549	na	ng/kg ww
PCB-061	1/1	100	6,030 C	6,030 C	6,030	na	ng/kg ww
PCB-062	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-063	1/1	100	257	257	257	na	ng/kg ww
PCB-064	1/1	100	1,050	1,050	1,050	na	ng/kg ww
PCB-065	1/1	100	C44	C44	nc	na	ng/kg ww
PCB-066	1/1	100	2,830	2,830	2,830	na	ng/kg ww
PCB-067	1/1	100	111	111	111	na	ng/kg ww
PCB-068	1/1	100	65.5	65.5	65.5	na	ng/kg ww
PCB-069	1/1	100	C49	C49	nc	na	ng/kg ww
PCB-070	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-071	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-072	1/1	100	165	165	165	na	ng/kg ww
PCB-073	0/1	0	nd	nd	0.0660	0.132	ng/kg ww
PCB-074	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-075	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-076	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-077	1/1	100	142	142	142	na	ng/kg ww
PCB-078	0/1	0	nd	nd	3.53	7.05	ng/kg ww
PCB-079	1/1	100	68.1	68.1	68.1	na	ng/kg ww
PCB-080	0/1	0	nd	nd	3.29	6.58	ng/kg ww
PCB-081	1/1	100	11.2 J	11.2 J	11.2	na	ng/kg ww
PCB-082	1/1	100	134	134	134	na	ng/kg ww
PCB-083	1/1	100	8,870 C	8,870 C	8,870	na	ng/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-084	1/1	100	870	870	870	na	ng/kg ww
PCB-085	1/1	100	809 C	809 C	809	na	ng/kg ww
PCB-086	1/1	100	4,860 C	4,860 C	4,860	na	ng/kg ww
PCB-087	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-088	1/1	100	720 C	720 C	720	na	ng/kg ww
PCB-089	1/1	100	14.4	14.4	14.4	na	ng/kg ww
PCB-090	1/1	100	13,400 C	13,400 C	13,400	na	ng/kg ww
PCB-091	1/1	100	C88	C88	nc	na	ng/kg ww
PCB-092	1/1	100	2,570	2,570	2,570	na	ng/kg ww
PCB-093	1/1	100	5,180 C	5,180 C	5,180	na	ng/kg ww
PCB-094	1/1	100	11.2	11.2	11.2	na	ng/kg ww
PCB-095	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-096	1/1	100	24.0	24.0	24.0	na	ng/kg ww
PCB-097	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-098	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-099	1/1	100	C83	C83	nc	na	ng/kg ww
PCB-100	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-101	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-102	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-103	1/1	100	120	120	120	na	ng/kg ww
PCB-104	1/1	100	0.927 J	0.927 J	0.927	na	ng/kg ww
PCB-105	1/1	100	3,920	3,920	3,920	na	ng/kg ww
PCB-106	0/1	0	nd	nd	1.74	3.48	ng/kg ww
PCB-107	1/1	100	373 C	373 C	373	na	ng/kg ww
PCB-108	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-109	1/1	100	1,070	1,070	1,070	na	ng/kg ww
PCB-110	1/1	100	6,690 C	6,690 C	6,690	na	ng/kg ww
PCB-111	1/1	100	13.5	13.5	13.5	na	ng/kg ww
PCB-112	0/1	0	nd	nd	1.02	2.03	ng/kg ww
PCB-113	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-114	1/1	100	261	261	261	na	ng/kg ww
PCB-115	1/1	100	C110	C110	nc	na	ng/kg ww
PCB-116	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-117	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-118	1/1	100	12,800	12,800	12,800	na	ng/kg ww
PCB-119	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-120	1/1	100	80.5	80.5	80.5	na	ng/kg ww

Table E.6.3-13, cont.   Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-121	1/1	100	6.09	6.09	6.09	na	ng/kg ww
PCB-122	1/1	100	92.7	92.7	92.7	na	ng/kg ww
PCB-123	1/1	100	209 J	209 J	209	na	ng/kg ww
PCB-124	1/1	100	C107	C107	nc	na	ng/kg ww
PCB-125	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-126	1/1	100	20.6	20.6	20.6	na	ng/kg ww
PCB-127	1/1	100	28.0	28.0	28.0	na	ng/kg ww
PCB-128	1/1	100	1,530 C	1,530 C	1,530	na	ng/kg ww
PCB-129	1/1	100	18,100 C	18,100 C	18,100	na	ng/kg ww
PCB-130	1/1	100	1,060	1,060	1,060	na	ng/kg ww
PCB-131	1/1	100	62.4	62.4	62.4	na	ng/kg ww
PCB-132	1/1	100	1,500	1,500	1,500	na	ng/kg ww
PCB-133	1/1	100	335	335	335	na	ng/kg ww
PCB-134	1/1	100	473 C	473 C	473	na	ng/kg ww
PCB-135	1/1	100	4,370 C	4,370 C	4,370	na	ng/kg ww
PCB-136	1/1	100	747	747	747	na	ng/kg ww
PCB-137	1/1	100	819	819	819	na	ng/kg ww
PCB-138	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-139	1/1	100	231 C	231 C	231	na	ng/kg ww
PCB-140	1/1	100	C139	C139	nc	na	ng/kg ww
PCB-141	1/1	100	1,880	1,880	1,880	na	ng/kg ww
PCB-142	0/1	0	nd	nd	4.71	9.41	ng/kg ww
PCB-143	1/1	100	C134	C134	nc	na	ng/kg ww
PCB-144	1/1	100	484	484	484	na	ng/kg ww
PCB-145	1/1	100	4.11 J	4.11 J	4.11	na	ng/kg ww
PCB-146	1/1	100	3,500	3,500	3,500	na	ng/kg ww
PCB-147	1/1	100	5,850 C	5,850 C	5,850	na	ng/kg ww
PCB-148	1/1	100	36.7	36.7	36.7	na	ng/kg ww
PCB-149	1/1	100	C147	C147	nc	na	ng/kg ww
PCB-150	1/1	100	13.9	13.9	13.9	na	ng/kg ww
PCB-151	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-152	1/1	100	5.83	5.83	5.83	na	ng/kg ww
PCB-153	1/1	100	19,100 C	19,100 C	19,100	na	ng/kg ww
PCB-154	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-155	1/1	100	1.70 J	1.70 J	1.70	na	ng/kg ww
PCB-156	1/1	100	1,750 C	1,750 C	1,750	na	ng/kg ww
PCB-157	1/1	100	C156	C156	nc	na	ng/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
PCB-158	1/1	100	1,550	1,550	1,550	na	ng/kg ww
PCB-159	1/1	100	31.6	31.6	31.6	na	ng/kg ww
PCB-160	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/1	0	nd	nd	3.42	6.83	ng/kg ww
PCB-162	1/1	100	53.3	53.3	53.3	na	ng/kg ww
PCB-163	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-164	1/1	100	532	532	532	na	ng/kg ww
PCB-165	1/1	100	11.4	11.4	11.4	na	ng/kg ww
PCB-166	1/1	100	C128	C128	nc	na	ng/kg ww
PCB-167	1/1	100	694	694	694	na	ng/kg ww
PCB-168	1/1	100	C153	C153	nc	na	ng/kg ww
PCB-169	0/1	0	nd	nd	4.20	8.39	ng/kg ww
PCB-170	1/1	100	3,000	3,000	3,000	na	ng/kg ww
PCB-171	1/1	100	925 C	925 C	925	na	ng/kg ww
PCB-172	1/1	100	456	456	456	na	ng/kg ww
PCB-173	1/1	100	C171	C171	nc	na	ng/kg ww
PCB-174	1/1	100	610	610	610	na	ng/kg ww
PCB-175	1/1	100	142	142	142	na	ng/kg ww
PCB-176	1/1	100	125	125	125	na	ng/kg ww
PCB-177	1/1	100	1,610	1,610	1,610	na	ng/kg ww
PCB-178	1/1	100	804	804	804	na	ng/kg ww
PCB-179	1/1	100	645	645	645	na	ng/kg ww
PCB-180	1/1	100	7,850 C	7,850 C	7,850	na	ng/kg ww
PCB-181	1/1	100	21.6	21.6	21.6	na	ng/kg ww
PCB-182	1/1	100	42.7	42.7	42.7	na	ng/kg ww
PCB-183	1/1	100	2,670 C	2,670 C	2,670	na	ng/kg ww
PCB-184	1/1	100	2.63 J	2.63 J	2.63	na	ng/kg ww
PCB-185	1/1	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/1	0	nd	nd	0.0995	0.199	ng/kg ww
PCB-187	1/1	100	5,150	5,150	5,150	na	ng/kg ww
PCB-188	1/1	100	7.40	7.40	7.40	na	ng/kg ww
PCB-189	1/1	100	102	102	102	na	ng/kg ww
PCB-190	1/1	100	615	615	615	na	ng/kg ww
PCB-191	1/1	100	162	162	162	na	ng/kg ww
PCB-192	0/1	0	nd	nd	0.112	0.223	ng/kg ww
PCB-193	1/1	100	C180	C180	nc	na	ng/kg ww
PCB-194	1/1	100	925	925	925	na	ng/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-195	1/1	100	341	341	341	na	ng/kg ww
PCB-196	1/1	100	553	553	553	na	ng/kg ww
PCB-197	1/1	100	74.9 C	74.9 C	74.9	na	ng/kg ww
PCB-198	1/1	100	980 C	980 C	980	na	ng/kg ww
PCB-199	1/1	100	C198	C198	nc	na	ng/kg ww
PCB-200	1/1	100	C197	C197	nc	na	ng/kg ww
PCB-201	1/1	100	167	167	167	na	ng/kg ww
PCB-202	1/1	100	349	349	349	na	ng/kg ww
PCB-203	1/1	100	816	816	816	na	ng/kg ww
PCB-204	1/1	100	0.402 J	0.402 J	0.402	na	ng/kg ww
PCB-205	1/1	100	44.4	44.4	44.4	na	ng/kg ww
PCB-206	1/1	100	359	359	359	na	ng/kg ww
PCB-207	1/1	100	44.0	44.0	44.0	na	ng/kg ww
PCB-208	1/1	100	81.8	81.8	81.8	na	ng/kg ww
PCB-209	1/1	100	41.5	41.5	41.5	na	ng/kg ww
Total PCB congeners	1/1	100	192,200 J	192,200 J	192,000	nc	ng/kg ww
Aroclor-1016	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1221	0/1	0	nd	nd	15	29	µg/kg ww
Aroclor-1232	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1242	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1248	1/1	100	59	59	59	na	µg/kg ww
Aroclor-1254	1/1	100	120	120	120	na	µg/kg ww
Aroclor-1260	1/1	100	120	120	120	na	µg/kg ww
Total PCBs	1/1	100	300	300	300	nc	µg/kg ww
PCB TEQ – Bird	1/1	100	11.00 J	11.00 J	11.0	na	ng/kg ww
PCB TEQ – Fish	1/1	100	0.2220 J	0.2220 J	0.222	na	ng/kg ww
PCB TEQ – Mammal	1/1	100	2.80 J	2.80 J	2.80	na	ng/kg ww
Pesticides							
2,4'-DDD	0/1	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDE	0/1	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDT	1/1	100	6.0 JN	6.0 JN	6.0	na	µg/kg ww
4,4'-DDD	0/1	0	nd	nd	3.6	7.2	µg/kg ww
4,4'-DDE	1/1	100	1.0 JN	1.0 JN	1.0	na	µg/kg ww
4,4'-DDT	1/1	100	3.2 JN	3.2 JN	3.2	na	µg/kg ww
Total DDTs	1/1	100	10.2 JN	10.2 JN	10	nc	µg/kg ww
Aldrin	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Dieldrin	0/1	0	nd	nd	3.6	7.2	µg/kg ww

Table E.6.3-13, cont. Summary statistics for pile perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total aldrin/dieldrin	0/1	0	nd	nd	3.6	nc	µg/kg ww
alpha-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
beta-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
gamma-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
delta-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
alpha-Chlordane	0/1	0	nd	nd	3.6	7.2	µg/kg ww
gamma-Chlordane	1/1	100	3.9 JN	3.9 JN	3.9	na	µg/kg ww
alpha-Endosulfan	0/1	0	nd	nd	3.6	7.2	µg/kg ww
beta-Endosulfan	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endosulfan sulfate	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endrin	1/1	100	0.89 JN	0.89 JN	0.89	na	µg/kg ww
Endrin aldehyde	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endrin ketone	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor epoxide	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Methoxychlor	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Mirex	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Toxaphene	0/1	0	nd	nd	180	360	µg/kg ww
Total chlordane	1/1	100	3.9 JN	3.9 JN	3.9	nc	µg/kg ww
Conventional parameters							
Total solids	1/1	100	23.3	23.3	23.3	na	% ww
Lipid	1/1	100	1.1	1.1	1.1	na	% ww

Table E.6.3-14. Summary statistics for red rock crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Mercury	2/2	100	0.050 J	0.11 J	0.080	na	mg/kg ww
Organometals							
Tributyltin as ion	0/2	0	nd	nd	1.0	2.0	µg/kg ww
Polychlorinated biphenyls							
Aroclor-1016/1242	2/2	100	10 J	16 J	13	na	µg/kg ww
Aroclor-1248	0/2	0	nd	nd	0.43	0.83 – 0.87	µg/kg ww
Aroclor-1254	2/2	100	42	81	62	na	µg/kg ww
Aroclor-1260	2/2	100	33	67	50	na	µg/kg ww
Total PCBs	2/2	100	85 J	164 J	120	nc	µg/kg ww

Table E.6.3-15. Summary statistics for red rock/Dungeness crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Mercury	1/1	100	0.070 J	0.070 J	0.070	na	mg/kg ww
Organometals							
Tributyltin as ion	0/1	0	nd	nd	1.0	2.0	µg/kg ww
Polychlorinated biphenyls							
Aroclor-1016/1242	1/1	100	10 J	10 J	10	na	µg/kg ww
Aroclor-1248	0/1	0	nd	nd	0.24	0.48	µg/kg ww
Aroclor-1254	1/1	100	28	28	28	na	µg/kg ww
Aroclor-1260	1/1	100	22	22	22	na	µg/kg ww
Total PCBs	1/1	100	60 J	60 J	60	nc	µg/kg ww

Table E.6.3-16. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	24/27	89	0.0017 J	0.0079 J	0.0042	0.020	mg/kg ww
Arsenic	27/27	100	0.715	1.4	0.99	na	mg/kg ww
Arsenic (inorganic)	8/8	100	0.020	0.160	0.070	na	mg/kg ww
Cadmium	27/27	100	0.0099	0.0240	0.015	na	mg/kg ww
Chromium	26/27	96	0.08 J	0.45	0.2	0.13	mg/kg ww
Cobalt	24/24	100	0.0279	0.0606	0.0417	na	mg/kg ww
Copper	27/27	100	0.582	2.2	1.6	na	mg/kg ww
Lead	27/27	100	0.0453	0.2610	0.12	na	mg/kg ww
Mercury	27/27	100	0.018	0.088	0.033	na	mg/kg ww
Molybdenum	24/24	100	0.0138	0.0435	0.0207	na	mg/kg ww
Nickel	27/27	100	0.17 J	0.545 J	0.39	na	mg/kg ww
Selenium	24/24	100	0.111	0.219	0.177	na	mg/kg ww
Silver	24/27	89	0.0022 J	0.0108	0.0047	0.012	mg/kg ww
Thallium	22/24	92	0.0005 J	0.0017 J	0.0008	0.0047 – 0.0052	mg/kg ww
Vanadium	22/24	92	0.21 J	1.23	0.40	0.25	mg/kg ww
Zinc	27/27	100	17	28.0	21	na	mg/kg ww
Organometals							
Monobutyltin as ion	24/24	100	0.75 J	4.0	2.3	na	µg/kg ww
Dibutyltin as ion	24/24	100	6.8	17	10	na	µg/kg ww
Tributyltin as ion	27/27	100	33	180	58	na	µg/kg ww
Tetrabutyltin as ion	0/24	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/27	0	nd	nd	170	24 – 2,900	µg/kg ww
2-Methylnaphthalene	24/27	89	2.1	8.8	7.2	64	µg/kg ww
Acenaphthene	25/27	93	4.8	22	9.9	16	µg/kg ww
Acenaphthylene	24/27	89	0.55 J	1.4	2.1	24	µg/kg ww
Anthracene	24/27	89	0.61 J	2.1	2.4	24	µg/kg ww
Benzo(a)anthracene	23/27	85	0.15 J	1.7	1.8	0.72 – 24	µg/kg ww
Benzo(a)pyrene	19/27	70	0.13 J	1.5	2.6	0.72 – 40	µg/kg ww
Benzo(b)fluoranthene	24/27	89	0.19 J	2.3	4.2	64	µg/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Benzo(g,h,i)perylene	8/27	30	0.16 J	0.99	2.5	0.16 – 40	µg/kg ww
Benzo(k)fluoranthene	23/27	85	0.18 J	2.2	4.1	0.72 – 64	µg/kg ww
Total benzofluoranthenes	24/27	89	0.21 J	4.5	4.7	nc	µg/kg ww
Chrysene	24/27	89	0.53 J	5.2	2.6	24	µg/kg ww
Dibenzo(a,h)anthracene	1/27	4	0.24	0.24	3.8	0.18 – 64	µg/kg ww
Dibenzofuran	24/27	89	2.7	7.4	6.6	40	µg/kg ww
Fluoranthene	24/27	89	3.0	9.4	6.0	24	µg/kg ww
Fluorene	24/27	89	2.4	7.1	5.4	24	µg/kg ww
Indeno(1,2,3-cd)pyrene	8/27	30	0.12 J	1.1	2.4	0.13 – 40	µg/kg ww
Naphthalene	5/27	19	5.8	8.7	6.4	3.0 – 64	µg/kg ww
Phenanthrene	24/27	89	3.8	13	7.4	24	µg/kg ww
Pyrene	24/27	89	1.3	5.7	3.6	24	µg/kg ww
Total HPAH	24/27	89	5.6 J	25.8	14	nc	µg/kg ww
Total LPAH	25/27	93	12.6 J	37	25	nc	µg/kg ww
Carcinogenic PAHs – Mammal	24/27	89	0.37 J	2.2	3.1	43	µg/kg ww
Total PAH	25/27	93	18.8 J	58	35	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	5/27	19	280 J	2,100 J	800	24 – 3,600	µg/kg ww
Butyl benzyl phthalate	7/24	29	300	1,400	490	57 – 1,200	µg/kg ww
Diethyl phthalate	13/27	48	19 J	900 J	210	40 – 1,200	µg/kg ww
Dimethyl phthalate	0/27	0	nd	nd	170	9.9 – 2,900	µg/kg ww
Di-n-butyl phthalate	1/27	4	2,300	2,300	220	40 – 580	µg/kg ww
Di-n-octyl phthalate	0/27	0	nd	nd	590	24 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/27	0	nd	nd	110	24 – 580	µg/kg ww
1,2-Dichlorobenzene	0/27	0	nd	nd	110	24 – 580	µg/kg ww
1,2-Diphenylhydrazine	0/3	0	nd	nd	40	80	µg/kg ww
1,3-Dichlorobenzene	0/27	0	nd	nd	110	24 – 580	µg/kg ww
1,4-Dichlorobenzene	0/27	0	nd	nd	110	24 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/27	0	nd	nd	740	120 – 15,000	µg/kg ww
2,4,6-Trichlorophenol	0/27	0	nd	nd	740	120 – 15,000	µg/kg ww
2,4-Dichlorophenol	0/27	0	nd	nd	220	40 – 1,200	µg/kg ww

Table E.6.3-16, cont.   Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2,4-Dimethylphenol	0/27	0	nd	nd	230	40 – 1,200	µg/kg ww
2,4-Dinitrophenol	0/12	0	nd	nd	3,400	80 – 29,000	µg/kg ww
2,4-Dinitrotoluene	0/27	0	nd	nd	880	16 – 15,000	µg/kg ww
2,6-Dinitrotoluene	0/27	0	nd	nd	740	16 – 15,000	µg/kg ww
2-Chlorophenol	0/27	0	nd	nd	220	80 – 1,200	µg/kg ww
2-Methylphenol	1/27	4	1,100 J	1,100 J	240	40 – 1,200	µg/kg ww
2-Nitroaniline	0/27	0	nd	nd	890	160 – 15,000	µg/kg ww
2-Nitrophenol	0/27	0	nd	nd	550	40 – 5,200	µg/kg ww
3,3'-Dichlorobenzidine	0/24	0	nd	nd	6,200	2,900 – 29,000	µg/kg ww
3-Nitroaniline	0/24	0	nd	nd	1,900	570 – 29,000	µg/kg ww
4,6-Dinitro-o-cresol	0/27	0	nd	nd	2,000	80 – 29,000	µg/kg ww
4-Bromophenyl phenyl ether	0/27	0	nd	nd	110	16 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/27	0	nd	nd	550	80 – 2,900	µg/kg ww
4-Chloroaniline	0/24	0	nd	nd	620	290 – 2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/27	0	nd	nd	170	24 – 2,900	µg/kg ww
4-Methylphenol	1/27	4	1,500	1,500	260	40 – 1,200	µg/kg ww
4-Nitroaniline	0/27	0	nd	nd	1,500	160 – 29,000	µg/kg ww
4-Nitrophenol	2/27	7	530 J	530 J	1,800	80 – 29,000	µg/kg ww
Aniline	0/24	0	nd	nd	2,500	1,200 – 12,000	µg/kg ww
Benzidine	0/24	0	nd	nd	17,000	7,200 – 72,000	µg/kg ww
Benzoic acid	17/27	63	740	54,000	4,800	2,900 – 5,800	µg/kg ww
Benzyl alcohol	6/27	22	48	200 J	150	57 – 580	µg/kg ww
bis(2-chloroethoxy)methane	1/27	4	240 J	240 J	270	40 – 1,500	µg/kg ww
bis(2-chloroethyl)ether	0/27	0	nd	nd	150	24 – 580	µg/kg ww
bis(2-chloroisopropyl)ether	0/27	0	nd	nd	120	57 – 580	µg/kg ww
Caffeine	0/3	0	nd	nd	4.0	8.0	µg/kg ww
Carbazole	2/27	7	6,000	14,000	1,200	40 – 2,900	µg/kg ww
Coprostanol	0/3	0	nd	nd	80	160	µg/kg ww
Hexachlorobenzene	1/27	4	4.1 JN	4.1 JN	2.4	1.5 – 24	µg/kg ww
Hexachlorobutadiene	0/27	0	nd	nd	110	40 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/27	0	nd	nd	25,000	40 – 360,000	µg/kg ww
Hexachloroethane	0/27	0	nd	nd	110	40 – 580	µg/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Isophorone	0/27	0	nd	nd	110	40 – 580	µg/kg ww
Nitrobenzene	0/27	0	nd	nd	110	40 – 580	µg/kg ww
N-Nitrosodimethylamine	0/27	0	nd	nd	860	120 – 5,800	µg/kg ww
N-Nitroso-di-n-propylamine	0/27	0	nd	nd	110	40 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/27	0	nd	nd	180	40 – 2,900	µg/kg ww
Pentachlorophenol	2/27	7	2.8 J	2,400 J	670	4.5 – 2,900	µg/kg ww
Phenol	13/27	48	52 J	670 J	280	150 – 1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	7/12	58	3.29	16.6 J	7.27	6.58 – 23.7	ng/kg ww
PCB-002	5/12	42	0.530 J	4.17 J	2.18	2.62 – 13.2	ng/kg ww
PCB-003	7/12	58	1.14 J	39.3 J	6.01	5.15 – 6.45	ng/kg ww
PCB-004	12/12	100	46.6	1,700	215	na	ng/kg ww
PCB-005	4/12	33	0.953 J	20.3 J	5.05	1.85 – 16.2	ng/kg ww
PCB-006	12/12	100	24.8	3,240	319	na	ng/kg ww
PCB-007	7/12	58	2.63	698	68.1	6.48 – 13.3	ng/kg ww
PCB-008	12/12	100	44.0	2,520	274	na	ng/kg ww
PCB-009	12/12	100	13.0	222	35.9	na	ng/kg ww
PCB-010	7/12	58	4.92	80.7	13.0	6.55 – 15.7	ng/kg ww
PCB-011	5/12	42	5.71	57.2 J	11.6	6.99 – 31.7	ng/kg ww
PCB-012	8/12	67	5.32 C	89.0 C	15.9	8.85 – 13.9	ng/kg ww
PCB-013	8/12	67	C12	C12	nc	0	ng/kg ww
PCB-014	0/12	0	nd	nd	3.67	0.136 – 16.7	ng/kg ww
PCB-015	12/12	100	119	1,320	245	na	ng/kg ww
PCB-016	12/12	100	26.9 J	389	74.6	na	ng/kg ww
PCB-017	12/12	100	180	7,640	903	na	ng/kg ww
PCB-018	12/12	100	913 C	24,900 C	3,310	na	ng/kg ww
PCB-019	12/12	100	115	2,330	338	na	ng/kg ww
PCB-020	12/12	100	3,950 C	75,100 C	12,200	na	ng/kg ww
PCB-021	12/12	100	144 C	1,910 C	343	na	ng/kg ww
PCB-022	12/12	100	232	4,730	708	na	ng/kg ww
PCB-023	4/12	33	1.27 J	3.98 J	2.75	1.64 – 16.4	ng/kg ww
PCB-024	10/12	83	13.3 J	155	28.3	0.858 – 1.53	ng/kg ww

Table E.6.3-16, cont.   Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-025	12/12	100	384	55,000	5,190	na	ng/kg ww
PCB-026	12/12	100	1,270 C	151,000 C	14,500	na	ng/kg ww
PCB-027	12/12	100	159	3,390	483	na	ng/kg ww
PCB-028	12/12	100	C20	C20	nc	na	ng/kg ww
PCB-029	12/12	100	C26	C26	nc	na	ng/kg ww
PCB-030	12/12	100	C18	C18	nc	na	ng/kg ww
PCB-031	12/12	100	2,120	55,100	7,540	na	ng/kg ww
PCB-032	12/12	100	550	9,340	1,470	na	ng/kg ww
PCB-033	12/12	100	C21	C21	nc	na	ng/kg ww
PCB-034	12/12	100	17.3	681	81.9	na	ng/kg ww
PCB-035	0/12	0	nd	nd	2.33	0.765 – 17.4	ng/kg ww
PCB-036	0/12	0	nd	nd	2.02	0.682 – 15.6	ng/kg ww
PCB-037	12/12	100	515	6,560	1,400	na	ng/kg ww
PCB-038	8/12	67	4.06 J	223 J	26.8	3.24 – 4.59	ng/kg ww
PCB-039	8/12	67	6.32	183	25.1	3.26 – 4.62	ng/kg ww
PCB-040	12/12	100	781 C	32,600 C	4,190	na	ng/kg ww
PCB-041	12/12	100	C40	C40	nc	na	ng/kg ww
PCB-042	12/12	100	252	27,900	2,870	na	ng/kg ww
PCB-043	10/12	83	102	1,890	312	0.138 – 0.469	ng/kg ww
PCB-044	12/12	100	4,460 C	328,000 C	36,600	na	ng/kg ww
PCB-045	12/12	100	346 C	8,600 C	1,280	na	ng/kg ww
PCB-046	12/12	100	95.5	3,830	496	na	ng/kg ww
PCB-047	12/12	100	C44	C44	nc	na	ng/kg ww
PCB-048	12/12	100	303	4,650	866	na	ng/kg ww
PCB-049	12/12	100	6,490 C	396,000 C	45,100	na	ng/kg ww
PCB-050	12/12	100	897 C	23,000 C	3,320	na	ng/kg ww
PCB-051	12/12	100	C45	C45	nc	na	ng/kg ww
PCB-052	12/12	100	13,900	770,000	89,900	na	ng/kg ww
PCB-053	12/12	100	C50	C50	nc	na	ng/kg ww
PCB-054	12/12	100	9.23 J	151	25.0	na	ng/kg ww
PCB-055	4/12	33	104 J	431	102	2.90 – 54.9	ng/kg ww
PCB-056	12/12	100	421	15,800	2,020	na	ng/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-057	12/12	100	70.5	11,500	1,100	na	ng/kg ww
PCB-058	11/12	92	32.1	2,700	287	5.40	ng/kg ww
PCB-059	12/12	100	670 C	20,500 C	2,900	na	ng/kg ww
PCB-060	12/12	100	1,100	10,300	2,770	na	ng/kg ww
PCB-061	12/12	100	11,100 C	335,000 C	47,400	na	ng/kg ww
PCB-062	12/12	100	C59	C59	nc	na	ng/kg ww
PCB-063	12/12	100	536	13,500	1,870	na	ng/kg ww
PCB-064	12/12	100	2,050	65,900	9,230	na	ng/kg ww
PCB-065	12/12	100	C44	C44	nc	na	ng/kg ww
PCB-066	12/12	100	6,190	217,000	29,500	na	ng/kg ww
PCB-067	12/12	100	210	9,160	1,140	na	ng/kg ww
PCB-068	12/12	100	121	12,700	1,350	na	ng/kg ww
PCB-069	12/12	100	C49	C49	nc	na	ng/kg ww
PCB-070	12/12	100	C61	C61	nc	na	ng/kg ww
PCB-071	12/12	100	C40	C40	nc	na	ng/kg ww
PCB-072	12/12	100	224	21,100	2,220	na	ng/kg ww
PCB-073	6/12	50	51.6	1,010	128	0.0497 – 2.19	ng/kg ww
PCB-074	12/12	100	C61	C61	nc	na	ng/kg ww
PCB-075	12/12	100	C59	C59	nc	na	ng/kg ww
PCB-076	12/12	100	C61	C61	nc	na	ng/kg ww
PCB-077	12/12	100	568	5,940	1,470	na	ng/kg ww
PCB-078	0/12	0	nd	nd	11.4	3.07 – 55.7	ng/kg ww
PCB-079	12/12	100	143	9,580	1,120	na	ng/kg ww
PCB-080	1/12	8	321	321	35.8	2.83 – 49.4	ng/kg ww
PCB-081	12/12	100	45.8	234	90.9	na	ng/kg ww
PCB-082	12/12	100	179	14,700	1,770	na	ng/kg ww
PCB-083	12/12	100	23,500 C	686,000 C	102,000	na	ng/kg ww
PCB-084	12/12	100	1,260	155,000	16,600	na	ng/kg ww
PCB-085	12/12	100	1,800 C	80,800 C	10,200	na	ng/kg ww
PCB-086	12/12	100	9,240 C	423,000 C	58,900	na	ng/kg ww
PCB-087	12/12	100	C86	C86	nc	na	ng/kg ww
PCB-088	12/12	100	1,860 C	105,000 C	13,200	na	ng/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-089	11/12	92	20.6	1,680	198	2.45	ng/kg ww
PCB-090	12/12	100	30,300 C	886,000 C	155,000	na	ng/kg ww
PCB-091	12/12	100	C88	C88	nc	na	ng/kg ww
PCB-092	12/12	100	4,410	241,000	33,100	na	ng/kg ww
PCB-093	12/12	100	9,670 C	705,000 C	93,000	na	ng/kg ww
PCB-094	11/12	92	18.4	2,090	219	29.6	ng/kg ww
PCB-095	12/12	100	C93	C93	nc	na	ng/kg ww
PCB-096	11/12	92	59.0	2,510	324	0.695	ng/kg ww
PCB-097	12/12	100	C86	C86	nc	na	ng/kg ww
PCB-098	12/12	100	C93	C93	nc	na	ng/kg ww
PCB-099	12/12	100	C83	C83	nc	na	ng/kg ww
PCB-100	12/12	100	C93	C93	nc	na	ng/kg ww
PCB-101	12/12	100	C90	C90	nc	na	ng/kg ww
PCB-102	12/12	100	C93	C93	nc	na	ng/kg ww
PCB-103	12/12	100	320	13,500	2,130	na	ng/kg ww
PCB-104	11/12	92	3.30 J	73.3	11.8	4.66	ng/kg ww
PCB-105	12/12	100	10,800	195,000	35,400	na	ng/kg ww
PCB-106	0/12	0	nd	nd	19.0	13.6 – 102	ng/kg ww
PCB-107	12/12	100	574 C	19,000 C	2,870	na	ng/kg ww
PCB-108	12/12	100	C86	C86	nc	na	ng/kg ww
PCB-109	12/12	100	2,550	80,300	11,300	na	ng/kg ww
PCB-110	12/12	100	15,400 C	906,000 C	114,000	na	ng/kg ww
PCB-111	12/12	100	30.4 J	1,310	194	na	ng/kg ww
PCB-112	0/12	0	nd	nd	4.47	1.65 – 22.4	ng/kg ww
PCB-113	12/12	100	C90	C90	nc	na	ng/kg ww
PCB-114	12/12	100	741	11,400	2,100	na	ng/kg ww
PCB-115	12/12	100	C110	C110	nc	na	ng/kg ww
PCB-116	12/12	100	C85	C85	nc	na	ng/kg ww
PCB-117	12/12	100	C85	C85	nc	na	ng/kg ww
PCB-118	12/12	100	33,800	812,000	129,000	na	ng/kg ww
PCB-119	12/12	100	C86	C86	nc	na	ng/kg ww
PCB-120	12/12	100	218	8,790	1,250	na	ng/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-121	9/12	75	11.9	275	56.9	6.19 – 6.63	ng/kg ww
PCB-122	11/12	92	108	3,650	533	15.5	ng/kg ww
PCB-123	12/12	100	600	7,750	1,670	na	ng/kg ww
PCB-124	12/12	100	C107	C107	nc	na	ng/kg ww
PCB-125	12/12	100	C86	C86	nc	na	ng/kg ww
PCB-126	12/12	100	55.3	370 J	140	na	ng/kg ww
PCB-127	9/12	75	64.0	1,550	265	45.4 – 113	ng/kg ww
PCB-128	12/12	100	5,040 C	124,000 C	25,900	na	ng/kg ww
PCB-129	12/12	100	63,200 C	854,000 C	249,000	na	ng/kg ww
PCB-130	12/12	100	3,140	56,100	12,300	na	ng/kg ww
PCB-131	12/12	100	116	6,270	980	na	ng/kg ww
PCB-132	12/12	100	2,980	209,000	32,600	na	ng/kg ww
PCB-133	12/12	100	1,040	15,000	4,300	na	ng/kg ww
PCB-134	12/12	100	994 C	44,500 C	7,810	na	ng/kg ww
PCB-135	12/12	100	12,000 C	334,000 C	70,800	na	ng/kg ww
PCB-136	12/12	100	2,270	73,800	17,400	na	ng/kg ww
PCB-137	12/12	100	2,030	47,800	8,320	na	ng/kg ww
PCB-138	12/12	100	C129	C129	nc	na	ng/kg ww
PCB-139	12/12	100	691 C	17,600 C	3,060	na	ng/kg ww
PCB-140	12/12	100	C139	C139	nc	na	ng/kg ww
PCB-141	12/12	100	3,960	183,000	32,800	na	ng/kg ww
PCB-142	0/12	0	nd	nd	22.0	5.19 – 119	ng/kg ww
PCB-143	12/12	100	C134	C134	nc	na	ng/kg ww
PCB-144	12/12	100	1,410	41,700	8,120	na	ng/kg ww
PCB-145	7/12	58	4.45	224	25.4	0.117 – 4.52	ng/kg ww
PCB-146	12/12	100	10,400	158,000	44,800	na	ng/kg ww
PCB-147	12/12	100	11,400 C	515,000 C	115,000	na	ng/kg ww
PCB-148	12/12	100	78.9	1,380	418	na	ng/kg ww
PCB-149	12/12	100	C147	C147	nc	na	ng/kg ww
PCB-150	12/12	100	50.7	988	268	na	ng/kg ww
PCB-151	12/12	100	C135	C135	nc	na	ng/kg ww
PCB-152	12/12	100	11.4	639	81.1	na	ng/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-153	12/12	100	72,500 C	1,070,000 C	269,000	na	ng/kg ww
PCB-154	12/12	100	C135	C135	nc	na	ng/kg ww
PCB-155	12/12	100	8.10	60.4	20.5	na	ng/kg ww
PCB-156	12/12	100	5,710 C	108,000 C	21,500	na	ng/kg ww
PCB-157	12/12	100	C156	C156	nc	na	ng/kg ww
PCB-158	12/12	100	4,830	81,200	22,200	na	ng/kg ww
PCB-159	12/12	100	50.7	3,970	699	na	ng/kg ww
PCB-160	12/12	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/12	0	nd	nd	15.3	3.88 – 82.3	ng/kg ww
PCB-162	12/12	100	146	2,670	582	na	ng/kg ww
PCB-163	12/12	100	C129	C129	nc	na	ng/kg ww
PCB-164	12/12	100	775	46,300	8,990	na	ng/kg ww
PCB-165	11/12	92	35.7	370	110	50.7	ng/kg ww
PCB-166	12/12	100	C128	C128	nc	na	ng/kg ww
PCB-167	12/12	100	2,320	34,900	8,600	na	ng/kg ww
PCB-168	12/12	100	C153	C153	nc	na	ng/kg ww
PCB-169	4/12	33	3.45	22.4	8.62	1.76 – 46.7	ng/kg ww
PCB-170	12/12	100	11,400	366,000	63,400	na	ng/kg ww
PCB-171	12/12	100	3,350 C	109,000 C	18,500	na	ng/kg ww
PCB-172	12/12	100	1,660	59,700	10,100	na	ng/kg ww
PCB-173	12/12	100	C171	C171	nc	na	ng/kg ww
PCB-174	12/12	100	1,150	90,000	14,900	na	ng/kg ww
PCB-175	12/12	100	439	14,700	2,440	na	ng/kg ww
PCB-176	12/12	100	367	27,200	4,080	na	ng/kg ww
PCB-177	12/12	100	5,080	223,000	35,700	na	ng/kg ww
PCB-178	12/12	100	2,700	78,800	13,900	na	ng/kg ww
PCB-179	12/12	100	2,160	119,000	18,000	na	ng/kg ww
PCB-180	12/12	100	33,300 C	1,080,000 C	181,000	na	ng/kg ww
PCB-181	12/12	100	81.3	2,070	425	na	ng/kg ww
PCB-182	12/12	100	108	927	375	na	ng/kg ww
PCB-183	12/12	100	10,000 C	310,000 C	51,100	na	ng/kg ww
PCB-184	11/12	92	8.66	86.9	24.6	2.42	ng/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-185	12/12	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/12	0	nd	nd	1.09	0.366 – 9.39	ng/kg ww
PCB-187	12/12	100	18,300	549,000	95,900	na	ng/kg ww
PCB-188	12/12	100	34.5	273	87.5	na	ng/kg ww
PCB-189	12/12	100	388	9,590	1,860	na	ng/kg ww
PCB-190	12/12	100	2,470	76,800	13,800	na	ng/kg ww
PCB-191	12/12	100	513	15,000	2,690	na	ng/kg ww
PCB-192	0/12	0	nd	nd	1.28	0.409 – 10.7	ng/kg ww
PCB-193	12/12	100	C180	C180	nc	na	ng/kg ww
PCB-194	12/12	100	3,410	97,600	19,200	na	ng/kg ww
PCB-195	12/12	100	1,500	50,700	8,960	na	ng/kg ww
PCB-196	12/12	100	2,000	63,600	11,600	na	ng/kg ww
PCB-197	12/12	100	259 C	9,590 C	1,640	na	ng/kg ww
PCB-198	12/12	100	2,360 C	98,800 C	17,600	na	ng/kg ww
PCB-199	12/12	100	C198	C198	nc	na	ng/kg ww
PCB-200	12/12	100	C197	C197	nc	na	ng/kg ww
PCB-201	12/12	100	570	15,300	2,860	na	ng/kg ww
PCB-202	12/12	100	1,120	21,500	4,690	na	ng/kg ww
PCB-203	12/12	100	3,000	77,100	15,400	na	ng/kg ww
PCB-204	11/12	92	1.18 J	15.2 J	5.20	0.457	ng/kg ww
PCB-205	12/12	100	180	4,700	957	na	ng/kg ww
PCB-206	12/12	100	693	9,710	2,820	na	ng/kg ww
PCB-207	12/12	100	100	1,680	420	na	ng/kg ww
PCB-208	12/12	100	125	1,640	503	na	ng/kg ww
PCB-209	12/12	100	77.1	299	168	na	ng/kg ww
Total PCB congeners	9/9	100	532,400 J	12,228,000 J	3,190,000	nc	ng/kg ww
Aroclor-1016	0/49	0	nd	nd	32	8.0 – 200	µg/kg ww
Aroclor-1221	0/49	0	nd	nd	42	8.0 – 290	µg/kg ww
Aroclor-1232	0/49	0	nd	nd	33	8.0 – 200	µg/kg ww
Aroclor-1242	0/49	0	nd	nd	32	8.0 – 200	µg/kg ww
Aroclor-1248	25/49	51	100	4,400	220	8.0 – 200	µg/kg ww
Aroclor-1254	49/49	100	200	7,600	730	na	µg/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Aroclor-1260	49/49	100	150	7,100	850	na	µg/kg ww
Total PCBs	49/49	100	350	18,400 J	1,800	nc	µg/kg ww
PCB TEQ – Bird	9/9	100	41.40 J	393.0 J	113	na	ng/kg ww
PCB TEQ – Fish	9/9	100	0.6330 J	8.400 J	2.16	na	ng/kg ww
PCB TEQ – Mammal	9/9	100	7.55 J	73.0 J	23.2	na	ng/kg ww
Pesticides							
2,4'-DDD	1/24	4	57 JN	57 JN	5.4	1.5 – 41	µg/kg ww
2,4'-DDE	2/24	8	3.2 JN	110 JN	6.8	1.5 – 16	µg/kg ww
2,4'-DDT	24/24	100	18 JN	440 JN	78	na	µg/kg ww
4,4'-DDD	22/24	92	1.3 JN	8.5 JN	4.6	3.5 – 4.7	µg/kg ww
4,4'-DDE	17/24	71	4.4 JN	15 JN	7.3	3.7 – 8.1	µg/kg ww
4,4'-DDT	24/24	100	14 JN	470 JN	90	na	µg/kg ww
Total DDTs	24/24	100	35 JN	1,020 JN	190	nc	µg/kg ww
Aldrin	1/24	4	1.4 JN	1.4 JN	0.82	1.5 – 3.7	µg/kg ww
Dieldrin	0/24	0	nd	nd	1.3	1.5 – 7.2	µg/kg ww
Total aldrin/dieldrin	1/24	4	1.4 JN	1.4 JN	1.3	nc	µg/kg ww
alpha-BHC	2/24	8	0.45 JN	0.46 JN	0.96	1.5 – 7.2	µg/kg ww
beta-BHC	16/24	67	2.5 JN	15 JN	5.9	1.5 – 5.1	µg/kg ww
gamma-BHC	7/24	29	0.59 JN	5.1 JN	1.2	1.5 – 2.8	µg/kg ww
delta-BHC	0/24	0	nd	nd	0.75	1.5	µg/kg ww
alpha-Chlordane	16/24	67	0.60 JN	3.6 JN	1.6	1.5 – 7.2	µg/kg ww
gamma-Chlordane	24/24	100	4.1 JN	330 JN	32	na	µg/kg ww
alpha-Endosulfan	11/24	46	2.0 JN	6.3 JN	2.4	1.5 – 9.9	µg/kg ww
beta-Endosulfan	14/24	58	2.0 JN	44 JN	7.6	2.4 – 11	µg/kg ww
Endosulfan sulfate	0/24	0	nd	nd	0.75	1.5	µg/kg ww
Endrin	8/24	33	2.2 JN	40 JN	5.3	1.5 – 72	µg/kg ww
Endrin aldehyde	3/24	12	5.3 JN	78 JN	4.9	1.5 – 6.5	µg/kg ww
Endrin ketone	0/24	0	nd	nd	1.4	1.5 – 15	µg/kg ww
Heptachlor	1/24	4	9.7 JN	9.7 JN	1.6	1.5 – 6.8	µg/kg ww
Heptachlor epoxide	5/24	21	3.4 JN	10 JN	2.5	1.5 – 6.0	µg/kg ww
Methoxychlor	0/24	0	nd	nd	1.5	1.5 – 7.2	µg/kg ww
Mirex	0/24	0	nd	nd	0.75	1.5	µg/kg ww

Table E.6.3-16, cont. Summary statistics for shiner surfperch, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Toxaphene	0/24	0	nd	nd	390	190 – 4,800	µg/kg ww
Total chlordane	24/24	100	4.9 JN	330 JN	33	nc	µg/kg ww
Conventional parameters							
Total solids	46/46	100	22.8	30.42	26.1	na	% ww
Total solids (estimated)	3/3	100	26.1	26.1	26.1	na	% ww
Lipid	49/49	100	1.6	6.93	4.6	na	% ww

Note: data for seven shiner surfperch whole body composite samples collected by King County in 2006 are not included in this table

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Table E.6.3-17. Summary statistics for slender crab, edible meat

	Detection Frequency		Concentration				
Chemical	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	10/12	83	0.0009 J	0.0025 J	0.002	0.0079 – 0.0087	mg/kg ww
Arsenic	12/12	100	1.670	3.570	2.612	na	mg/kg ww
Arsenic (inorganic)	4/4	100	0.030	0.030	0.030	na	mg/kg ww
Cadmium	12/12	100	0.0169	0.0444	0.0290	na	mg/kg ww
Chromium	0/12	0	nd	nd	0.04	0.07 – 0.10	mg/kg ww
Cobalt	12/12	100	0.0107	0.0169 J	0.0132	na	mg/kg ww
Copper	12/12	100	4.430	7.320	6.238	na	mg/kg ww
Lead	12/12	100	0.0131	0.0503	0.0270	na	mg/kg ww
Mercury	12/12	100	0.023	0.060	0.047	na	mg/kg ww
Molybdenum	12/12	100	0.0131	0.0171	0.0150	na	mg/kg ww
Nickel	12/12	100	0.035 J	0.065	0.050	na	mg/kg ww
Selenium	12/12	100	0.160	0.262	0.209	na	mg/kg ww
Silver	12/12	100	0.0431	0.0702	0.0563	na	mg/kg ww
Thallium	0/12	0	nd	nd	0.0018	0.0027 – 0.0039	mg/kg ww
Vanadium	0/12	0	nd	nd	0.088	0.14 – 0.20	mg/kg ww
Zinc	12/12	100	26.1	39.3	34.4	na	mg/kg ww
Organometals							
Monobutyltin as ion	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Dibutyltin as ion	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Tributyltin as ion	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Tetrabutyltin as ion	0/12	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
2-Methylnaphthalene	1/12	8	0.45	0.45	0.24	0.34 – 0.52	µg/kg ww
Acenaphthene	5/12	42	0.13 J	0.18 J	0.27	0.72	µg/kg ww
Acenaphthylene	1/12	8	0.13 J	0.13 J	0.34	0.72	µg/kg ww
Anthracene	8/12	67	0.090 J	0.18 J	0.21	0.72	µg/kg ww
Benzo(a)anthracene	2/12	17	0.12 J	0.16	0.32	0.72	µg/kg ww
Benzo(a)pyrene	1/12	8	0.18	0.18	0.35	0.72	µg/kg ww
Benzo(b)fluoranthene	1/12	8	0.17	0.17	0.34	0.72	µg/kg ww
Benzo(g,h,i)perylene	1/12	8	0.22	0.22	0.35	0.72	µg/kg ww
Benzo(k)fluoranthene	1/12	8	0.16	0.16	0.34	0.72	µg/kg ww
Total benzofluoranthenes	1/12	8	0.33	0.33	0.36	nc	µg/kg ww
Chrysene	2/12	17	0.14 J	0.17	0.33	0.72	µg/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Dibenzo(a,h)anthracene	1/12	8	0.20	0.20	0.35	0.72	µg/kg ww
Dibenzofuran	8/12	67	0.097 J	0.19 J	0.12	0.11 – 0.23	µg/kg ww
Fluoranthene	12/12	100	0.18 J	0.80	0.51	na	µg/kg ww
Fluorene	12/12	100	0.094 J	0.25 J	0.15	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	1/12	8	0.23	0.23	0.35	0.72	µg/kg ww
Naphthalene	1/12	8	1.5	1.5	0.92	1.4 – 2.2	µg/kg ww
Phenanthrene	2/12	17	0.49	0.67 J	0.27	0.31 – 0.51	µg/kg ww
Pyrene	12/12	100	0.16 J	0.43 J	0.25	na	µg/kg ww
Total HPAH	12/12	100	0.34 J	2.09 J	0.91	nc	µg/kg ww
Total LPAH	12/12	100	0.094 J	2.4 J	0.52	nc	µg/kg ww
Carcinogenic PAHs – Mammal	2/12	17	0.33	0.63 J	0.35	0.65	µg/kg ww
Total PAH	12/12	100	0.43 J	4.5 J	1.4	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/12	0	nd	nd	60	66 – 260	µg/kg ww
Butyl benzyl phthalate	0/12	0	nd	nd	390	120 – 1,200	µg/kg ww
Diethyl phthalate	5/12	42	21 J	180 J	320	120 – 1,200	µg/kg ww
Dimethyl phthalate	1/12	8	7.6 J	7.6 J	220	57 – 580	µg/kg ww
Di-n-butyl phthalate	0/12	0	nd	nd	200	31 – 580	µg/kg ww
Di-n-octyl phthalate	0/12	0	nd	nd	830	290 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
1,2-Dichlorobenzene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
1,3-Dichlorobenzene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
1,4-Dichlorobenzene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/12	0	nd	nd	910	290 – 2,900	µg/kg ww
2,4,6-Trichlorophenol	0/12	0	nd	nd	910	290 – 2,900	µg/kg ww
2,4-Dichlorophenol	0/12	0	nd	nd	470	120 – 1,200	µg/kg ww
2,4-Dimethylphenol	0/12	0	nd	nd	470	120 – 1,200	µg/kg ww
2,4-Dinitrophenol	0/12	0	nd	nd	4,700	1,200 – 12,000	µg/kg ww
2,4-Dinitrotoluene	0/12	0	nd	nd	840	290 – 2,900	µg/kg ww
2,6-Dinitrotoluene	0/12	0	nd	nd	760	290 – 2,900	µg/kg ww
2-Chlorophenol	0/12	0	nd	nd	470	120 – 1,200	µg/kg ww
2-Methylphenol	0/12	0	nd	nd	470	120 – 1,200	µg/kg ww
2-Nitroaniline	0/12	0	nd	nd	1,100	290 – 2,900	µg/kg ww
2-Nitrophenol	0/12	0	nd	nd	830	290 – 2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/12	0	nd	nd	11,000	2,900 – 29,000	µg/kg ww
3-Nitroaniline	0/12	0	nd	nd	2,200	570 – 5,800	µg/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/12	0	nd	nd	2,200	570 – 5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/12	0	nd	nd	220	57 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/12	0	nd	nd	1,100	290 – 2,900	µg/kg ww
4-Chloroaniline	0/12	0	nd	nd	1,100	290 – 2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/12	0	nd	nd	220	57 – 580	µg/kg ww
4-Methylphenol	0/12	0	nd	nd	470	120 – 1,200	µg/kg ww
4-Nitroaniline	0/12	0	nd	nd	1,800	570 – 5,800	µg/kg ww
4-Nitrophenol	0/12	0	nd	nd	2,200	570 – 5,800	µg/kg ww
Aniline	0/12	0	nd	nd	4,700	1,200 – 12,000	µg/kg ww
Benzidine	0/12	0	nd	nd	28,000	7,200 – 72,000	µg/kg ww
Benzoic acid	0/12	0	nd	nd	4,700	1,200 – 12,000	µg/kg ww
Benzyl alcohol	1/12	8	12 J	12 J	360	120 – 1,200	µg/kg ww
bis(2-chloroethoxy)methane	0/12	0	nd	nd	740	290 – 2,900	µg/kg ww
bis(2-chloroethyl)ether	0/12	0	nd	nd	360	120 – 1,200	µg/kg ww
bis(2-chloroisopropyl)ether	0/12	0	nd	nd	220	57 – 580	µg/kg ww
Carbazole	0/12	0	nd	nd	1,100	290 – 2,900	µg/kg ww
Hexachlorobenzene	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Hexachlorobutadiene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/12	0	nd	nd	28,000	7,200 – 72,000	µg/kg ww
Hexachloroethane	0/12	0	nd	nd	220	57 – 580	µg/kg ww
Isophorone	0/12	0	nd	nd	220	57 – 580	µg/kg ww
Nitrobenzene	0/12	0	nd	nd	220	57 – 580	µg/kg ww
N-Nitrosodimethylamine	0/12	0	nd	nd	3,100	1,200 – 12,000	µg/kg ww
N-Nitroso-di-n-propylamine	0/12	0	nd	nd	220	57 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/12	0	nd	nd	220	57 – 580	µg/kg ww
Pentachlorophenol	0/12	0	nd	nd	74	3.3 – 580	µg/kg ww
Phenol	1/12	8	43 J	43 J	580	150 – 1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	2/5	40	1.04 J	3.45 J	1.11	0.686 – 0.780	ng/kg ww
PCB-002	5/5	100	0.340 J	2.90	0.874	na	ng/kg ww
PCB-003	5/5	100	0.401 J	15.4 J	3.46	na	ng/kg ww
PCB-004	5/5	100	4.68	13.5	7.35	na	ng/kg ww
PCB-005	1/5	20	0.222 J	0.222 J	0.185	0.257 – 0.508	ng/kg ww
PCB-006	5/5	100	1.25 J	2.92 J	1.90	na	ng/kg ww
PCB-007	5/5	100	0.391 J	33.3	7.01	na	ng/kg ww
PCB-008	5/5	100	1.69 J	4.21 J	2.75	na	ng/kg ww
PCB-009	5/5	100	0.490 J	0.897 J	0.695	na	ng/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-010	1/5	20	0.165 J	0.165 J	0.163	0.238 – 0.473	ng/kg ww
PCB-011	1/5	20	35.6 J	35.6 J	8.17	2.07 – 3.43	ng/kg ww
PCB-012	5/5	100	1.49 CJ	2.53 CJ	1.84	na	ng/kg ww
PCB-013	5/5	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/5	0	nd	nd	0.152	0.148 – 0.483	ng/kg ww
PCB-015	5/5	100	132	314	192	na	ng/kg ww
PCB-016	5/5	100	8.90	38.3	20.3	na	ng/kg ww
PCB-017	5/5	100	19.2	99.5	53.1	na	ng/kg ww
PCB-018	5/5	100	229 C	412 C	309	na	ng/kg ww
PCB-019	5/5	100	2.01 J	9.16	3.98	na	ng/kg ww
PCB-020	5/5	100	1,850 C	3,820 C	2,430	na	ng/kg ww
PCB-021	2/5	40	22.0 C	121 C	28.8	0.658 – 0.854	ng/kg ww
PCB-022	5/5	100	131	331	211	na	ng/kg ww
PCB-023	1/5	20	1.39	1.39	0.590	0.649 – 0.843	ng/kg ww
PCB-024	5/5	100	0.237 J	1.91 J	1.20	na	ng/kg ww
PCB-025	5/5	100	7.62	54.8	32.9	na	ng/kg ww
PCB-026	5/5	100	132 C	340 C	234	na	ng/kg ww
PCB-027	5/5	100	0.0855 J	19.5	7.37	na	ng/kg ww
PCB-028	5/5	100	C20	C20	nc	na	ng/kg ww
PCB-029	5/5	100	C26	C26	nc	na	ng/kg ww
PCB-030	5/5	100	C18	C18	nc	na	ng/kg ww
PCB-031	5/5	100	391	723	588	na	ng/kg ww
PCB-032	5/5	100	14.1	99.3	41.4	na	ng/kg ww
PCB-033	2/5	40	C21	C21	nc	0	ng/kg ww
PCB-034	2/5	40	1.02 J	1.89 J	0.849	0.747 – 0.970	ng/kg ww
PCB-035	1/5	20	0.350 J	0.350 J	0.446	0.783 – 1.02	ng/kg ww
PCB-036	0/5	0	nd	nd	0.359	0.197 – 0.918	ng/kg ww
PCB-037	5/5	100	415	981	612	na	ng/kg ww
PCB-038	0/5	0	nd	nd	0.352	0.206 – 0.895	ng/kg ww
PCB-039	5/5	100	3.82	11.3	6.94	na	ng/kg ww
PCB-040	5/5	100	172 C	402 C	276	na	ng/kg ww
PCB-041	5/5	100	C40	C40	nc	na	ng/kg ww
PCB-042	5/5	100	274	528	395	na	ng/kg ww
PCB-043	4/5	80	59.2	163	95.7	0.147	ng/kg ww
PCB-044	5/5	100	1,850 C	2,980 C	2,470	na	ng/kg ww
PCB-045	5/5	100	18.5 CJ	72.2 C	38.9	na	ng/kg ww
PCB-046	5/5	100	2.89	20.1	9.79	na	ng/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-047	5/5	100	C44	C44	nc	na	ng/kg ww
PCB-048	5/5	100	115	338	208	na	ng/kg ww
PCB-049	5/5	100	1,990 C	2,800 C	2,580	na	ng/kg ww
PCB-050	5/5	100	13.8 C	86.9 C	46.8	na	ng/kg ww
PCB-051	5/5	100	C45	C45	nc	na	ng/kg ww
PCB-052	5/5	100	4,440	6,250	5,510	na	ng/kg ww
PCB-053	5/5	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/5	20	1.32	1.32	0.305	0.0799 – 0.118	ng/kg ww
PCB-055	0/5	0	nd	nd	1.93	0.496 – 5.36	ng/kg ww
PCB-056	5/5	100	549	900	714	na	ng/kg ww
PCB-057	5/5	100	5.07	18.0	13.0	na	ng/kg ww
PCB-058	5/5	100	5.77	18.6	14.5	na	ng/kg ww
PCB-059	5/5	100	106 C	187 C	153	na	ng/kg ww
PCB-060	5/5	100	792	1,650	1,200	na	ng/kg ww
PCB-061	5/5	100	3,620 C	5,200 C	4,440	na	ng/kg ww
PCB-062	5/5	100	C59	C59	nc	na	ng/kg ww
PCB-063	5/5	100	168	248	210	na	ng/kg ww
PCB-064	5/5	100	583	899	745	na	ng/kg ww
PCB-065	5/5	100	C44	C44	nc	na	ng/kg ww
PCB-066	5/5	100	3,400	5,730	4,500	na	ng/kg ww
PCB-067	5/5	100	31.5	55.2	47.5	na	ng/kg ww
PCB-068	5/5	100	20.0	46.1	29.9	na	ng/kg ww
PCB-069	5/5	100	C49	C49	nc	na	ng/kg ww
PCB-070	5/5	100	C61	C61	nc	na	ng/kg ww
PCB-071	5/5	100	C40	C40	nc	na	ng/kg ww
PCB-072	5/5	100	56.9	107	75.6	na	ng/kg ww
PCB-073	0/5	0	nd	nd	0.0483	0.0782 – 0.120	ng/kg ww
PCB-074	5/5	100	C61	C61	nc	na	ng/kg ww
PCB-075	5/5	100	C59	C59	nc	na	ng/kg ww
PCB-076	5/5	100	C61	C61	nc	na	ng/kg ww
PCB-077	5/5	100	232	456	329	na	ng/kg ww
PCB-078	0/5	0	nd	nd	1.91	0.509 – 5.30	ng/kg ww
PCB-079	5/5	100	67.8	101	84.8	na	ng/kg ww
PCB-080	0/5	0	nd	nd	1.76	0.464 – 4.88	ng/kg ww
PCB-081	5/5	100	12.8 J	25.4	19.7	na	ng/kg ww
PCB-082	5/5	100	302	522	393	na	ng/kg ww
PCB-083	5/5	100	5,120 C	7,400 C	6,470	na	ng/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-084	5/5	100	315	589	447	na	ng/kg ww
PCB-085	5/5	100	1,060 C	1,770 C	1,500	na	ng/kg ww
PCB-086	5/5	100	3,470 C	5,430 C	4,420	na	ng/kg ww
PCB-087	5/5	100	C86	C86	nc	na	ng/kg ww
PCB-088	5/5	100	570 C	906 C	758	na	ng/kg ww
PCB-089	2/5	40	4.35 J	9.99	3.59	0.256 – 3.88	ng/kg ww
PCB-090	5/5	100	10,200 C	14,200 C	12,300	na	ng/kg ww
PCB-091	5/5	100	C88	C88	nc	na	ng/kg ww
PCB-092	5/5	100	1,870	2,520	2,220	na	ng/kg ww
PCB-093	5/5	100	2,940 C	4,730 C	3,640	na	ng/kg ww
PCB-094	4/5	80	4.58 J	8.84	6.17	0.256	ng/kg ww
PCB-095	5/5	100	C93	C93	nc	na	ng/kg ww
PCB-096	5/5	100	1.04	6.03	3.56	na	ng/kg ww
PCB-097	5/5	100	C86	C86	nc	na	ng/kg ww
PCB-098	5/5	100	C93	C93	nc	na	ng/kg ww
PCB-099	5/5	100	C83	C83	nc	na	ng/kg ww
PCB-100	5/5	100	C93	C93	nc	na	ng/kg ww
PCB-101	5/5	100	C90	C90	nc	na	ng/kg ww
PCB-102	5/5	100	C93	C93	nc	na	ng/kg ww
PCB-103	5/5	100	68.0	113	93.6	na	ng/kg ww
PCB-104	5/5	100	0.222 J	2.06	0.646	na	ng/kg ww
PCB-105	5/5	100	2,900	4,380	3,640	na	ng/kg ww
PCB-106	0/5	0	nd	nd	1.14	0.420 – 3.07	ng/kg ww
PCB-107	5/5	100	214 C	335 C	288	na	ng/kg ww
PCB-108	5/5	100	C86	C86	nc	na	ng/kg ww
PCB-109	5/5	100	460	666	586	na	ng/kg ww
PCB-110	5/5	100	2,770 C	4,520 C	3,500	na	ng/kg ww
PCB-111	5/5	100	4.21 J	11.1	7.12	na	ng/kg ww
PCB-112	0/5	0	nd	nd	0.873	0.183 – 2.87	ng/kg ww
PCB-113	5/5	100	C90	C90	nc	na	ng/kg ww
PCB-114	5/5	100	238	324	286	na	ng/kg ww
PCB-115	5/5	100	C110	C110	nc	na	ng/kg ww
PCB-116	5/5	100	C85	C85	nc	na	ng/kg ww
PCB-117	5/5	100	C85	C85	nc	na	ng/kg ww
PCB-118	5/5	100	7,980	11,400	9,990	na	ng/kg ww
PCB-119	5/5	100	C86	C86	nc	na	ng/kg ww
PCB-120	5/5	100	16.5	23.9	19.9	na	ng/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-121	0/5	0	nd	nd	0.846	0.179 – 2.78	ng/kg ww
PCB-122	5/5	100	53.9	151	107	na	ng/kg ww
PCB-123	5/5	100	146	248	190	na	ng/kg ww
PCB-124	5/5	100	C107	C107	nc	na	ng/kg ww
PCB-125	5/5	100	C86	C86	nc	na	ng/kg ww
PCB-126	5/5	100	12.6	23.1	17.6	na	ng/kg ww
PCB-127	5/5	100	12.8	23.8	19.8	na	ng/kg ww
PCB-128	5/5	100	1,330 C	2,040 C	1,670	na	ng/kg ww
PCB-129	5/5	100	11,400 C	19,400 C	14,900	na	ng/kg ww
PCB-130	5/5	100	553	834	724	na	ng/kg ww
PCB-131	5/5	100	67.4	109	86.6	na	ng/kg ww
PCB-132	5/5	100	1,220	1,690	1,440	na	ng/kg ww
PCB-133	5/5	100	240	413	302	na	ng/kg ww
PCB-134	5/5	100	322 C	500 C	371	na	ng/kg ww
PCB-135	5/5	100	2,870 C	4,700 C	3,740	na	ng/kg ww
PCB-136	5/5	100	323	510	396	na	ng/kg ww
PCB-137	5/5	100	362	607	476	na	ng/kg ww
PCB-138	5/5	100	C129	C129	nc	na	ng/kg ww
PCB-139	5/5	100	155 C	232 C	194	na	ng/kg ww
PCB-140	5/5	100	C139	C139	nc	na	ng/kg ww
PCB-141	5/5	100	1,280	2,390	1,880	na	ng/kg ww
PCB-142	0/5	0	nd	nd	1.88	0.507 – 6.21	ng/kg ww
PCB-143	5/5	100	C134	C134	nc	na	ng/kg ww
PCB-144	5/5	100	303	462	389	na	ng/kg ww
PCB-145	0/5	0	nd	nd	0.0751	0.0821 – 0.200	ng/kg ww
PCB-146	5/5	100	2,230	3,690	2,810	na	ng/kg ww
PCB-147	5/5	100	8,010 C	12,800 C	10,200	na	ng/kg ww
PCB-148	5/5	100	15.4	23.1	19.2	na	ng/kg ww
PCB-149	5/5	100	C147	C147	nc	na	ng/kg ww
PCB-150	5/5	100	14.9	28.3	20.3	na	ng/kg ww
PCB-151	5/5	100	C135	C135	nc	na	ng/kg ww
PCB-152	5/5	100	0.996	3.01 J	2.10	na	ng/kg ww
PCB-153	5/5	100	10,700 C	19,700 C	14,600	na	ng/kg ww
PCB-154	5/5	100	C135	C135	nc	na	ng/kg ww
PCB-155	5/5	100	1.33 J	2.99 J	2.02	na	ng/kg ww
PCB-156	5/5	100	1,170 C	1,980 C	1,520	na	ng/kg ww
PCB-157	5/5	100	C156	C156	nc	na	ng/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-158	5/5	100	713	1,180	938	na	ng/kg ww
PCB-159	5/5	100	41.7	70.7	55.5	na	ng/kg ww
PCB-160	5/5	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/5	0	nd	nd	1.36	0.350 – 4.50	ng/kg ww
PCB-162	5/5	100	20.5	36.3	29.7	na	ng/kg ww
PCB-163	5/5	100	C129	C129	nc	na	ng/kg ww
PCB-164	5/5	100	527	788	686	na	ng/kg ww
PCB-165	2/5	40	8.86	11.4	5.25	2.71 – 5.17	ng/kg ww
PCB-166	5/5	100	C128	C128	nc	na	ng/kg ww
PCB-167	5/5	100	432	807	595	na	ng/kg ww
PCB-168	5/5	100	C153	C153	nc	na	ng/kg ww
PCB-169	2/5	40	0.626	0.707	0.811	0.378 – 4.22	ng/kg ww
PCB-170	5/5	100	1,170	2,260	1,590	na	ng/kg ww
PCB-171	5/5	100	548 C	974 C	764	na	ng/kg ww
PCB-172	5/5	100	235	455	324	na	ng/kg ww
PCB-173	5/5	100	C171	C171	nc	na	ng/kg ww
PCB-174	5/5	100	845	1,630	1,240	na	ng/kg ww
PCB-175	5/5	100	72.7	107	91.9	na	ng/kg ww
PCB-176	5/5	100	225	358	300	na	ng/kg ww
PCB-177	5/5	100	1,240	2,320	1,790	na	ng/kg ww
PCB-178	5/5	100	617	1,160	859	na	ng/kg ww
PCB-179	5/5	100	636	1,000	847	na	ng/kg ww
PCB-180	5/5	100	4,100 C	7,590 C	5,380	na	ng/kg ww
PCB-181	5/5	100	12.1	21.2	17.0	na	ng/kg ww
PCB-182	1/5	20	37.5	37.5	7.64	0.221 – 0.455	ng/kg ww
PCB-183	5/5	100	1,430 C	2,400 C	1,930	na	ng/kg ww
PCB-184	5/5	100	1.88 J	2.64 J	2.29	na	ng/kg ww
PCB-185	5/5	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/5	0	nd	nd	0.123	0.117 – 0.353	ng/kg ww
PCB-187	5/5	100	3,430	6,490	4,810	na	ng/kg ww
PCB-188	5/5	100	5.80	10.5	7.99	na	ng/kg ww
PCB-189	5/5	100	54.4	132	84.6	na	ng/kg ww
PCB-190	5/5	100	456	730	579	na	ng/kg ww
PCB-191	5/5	100	89.2	136	114	na	ng/kg ww
PCB-192	0/5	0	nd	nd	0.145	0.125 – 0.421	ng/kg ww
PCB-193	5/5	100	C180	C180	nc	na	ng/kg ww
PCB-194	5/5	100	266	571	386	na	ng/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-195	5/5	100	128	239	171	na	ng/kg ww
PCB-196	5/5	100	206	359	257	na	ng/kg ww
PCB-197	5/5	100	61.8 C	123 C	87.6	na	ng/kg ww
PCB-198	5/5	100	408 C	817 C	556	na	ng/kg ww
PCB-199	5/5	100	C198	C198	nc	na	ng/kg ww
PCB-200	5/5	100	C197	C197	nc	na	ng/kg ww
PCB-201	5/5	100	78.5	164	124	na	ng/kg ww
PCB-202	5/5	100	190	346	284	na	ng/kg ww
PCB-203	5/5	100	307	534	400	na	ng/kg ww
PCB-204	5/5	100	0.177 J	0.311 J	0.238	na	ng/kg ww
PCB-205	5/5	100	17.7	30.0	22.6	na	ng/kg ww
PCB-206	5/5	100	41.6	91.5	62.3	na	ng/kg ww
PCB-207	5/5	100	5.64	12.5	8.58	na	ng/kg ww
PCB-208	5/5	100	15.2	41.3	26.5	na	ng/kg ww
PCB-209	5/5	100	4.40 J	17.5	10.3	na	ng/kg ww
Total PCB congeners	5/5	100	129,700 J	186,500 J	161,000	nc	ng/kg ww
Aroclor-1016	0/13	0	nd	nd	7.7	15 – 20	µg/kg ww
Aroclor-1221	0/13	0	nd	nd	14	20 – 29	µg/kg ww
Aroclor-1232	0/13	0	nd	nd	7.7	15 – 20	µg/kg ww
Aroclor-1242	0/13	0	nd	nd	7.7	15 – 20	µg/kg ww
Aroclor-1248	1/13	8	84	84	14	15 – 20	µg/kg ww
Aroclor-1254	13/13	100	38	160 J	100	na	µg/kg ww
Aroclor-1260	13/13	100	26	150	88	na	µg/kg ww
Total PCBs	13/13	100	64	390 J	200	nc	µg/kg ww
PCB TEQ – Bird	5/5	100	14.70 J	28.40	20.8	na	ng/kg ww
PCB TEQ – Fish	5/5	100	0.1630 J	0.2640	0.212	na	ng/kg ww
PCB TEQ – Mammal	5/5	100	1.73 J	2.93	2.31	na	ng/kg ww
Pesticides							
2,4'-DDD	9/12	75	1.6 JN	5.2 JN	2.2	1.5	µg/kg ww
2,4'-DDE	0/12	0	nd	nd	0.87	1.5 – 2.4	µg/kg ww
2,4'-DDT	12/12	100	3.7 JN	14 JN	8.6	na	µg/kg ww
4,4'-DDD	0/12	0	nd	nd	0.81	1.5 – 2.2	µg/kg ww
4,4'-DDE	12/12	100	1.2 JN	4.7 JN	2.6	na	µg/kg ww
4,4'-DDT	12/12	100	3.7 JN	12 JN	7.3	na	µg/kg ww
Total DDTs	12/12	100	10.5 JN	32 JN	21	nc	µg/kg ww
Aldrin	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Dieldrin	1/12	8	1.3 JN	1.3 JN	1.0	1.5 – 3.3	µg/kg ww

Table E.6.3-17, cont. Summary statistics for slender crab, edible meat

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total aldrin/dieldrin	1/12	8	1.3 JN	1.3 JN	1.0	nc	µg/kg ww
alpha-BHC	0/12	0	nd	nd	0.75	1.5	µg/kg ww
beta-BHC	0/12	0	nd	nd	1.5	1.5 – 8.2	µg/kg ww
gamma-BHC	0/12	0	nd	nd	0.75	1.5	µg/kg ww
delta-BHC	0/12	0	nd	nd	0.75	1.5	µg/kg ww
alpha-Chlordane	2/12	17	1.5 JN	1.8 JN	0.90	1.5	µg/kg ww
gamma-Chlordane	12/12	100	2.0 JN	6.3 JN	3.8	na	µg/kg ww
alpha-Endosulfan	1/12	8	0.34 JN	0.34 JN	0.72	1.5	µg/kg ww
beta-Endosulfan	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Endosulfan sulfate	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Endrin	0/12	0	nd	nd	0.90	1.5 – 5.0	µg/kg ww
Endrin aldehyde	5/12	42	0.83 JN	2.8 JN	1.2	1.5	µg/kg ww
Endrin ketone	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Heptachlor	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Heptachlor epoxide	9/12	75	0.93 JN	3.0 JN	1.8	1.5	µg/kg ww
Methoxychlor	3/12	25	7.7 JN	130 JN	14	1.5	µg/kg ww
Mirex	0/12	0	nd	nd	0.75	1.5	µg/kg ww
Toxaphene	0/12	0	nd	nd	50	72 – 160	µg/kg ww
Total chlordane	12/12	100	2.0 JN	6.3 JN	4.1	nc	µg/kg ww
Conventional parameters							
Total solids	13/13	100	13.5	19.7	17.7	na	% ww
Lipid	13/13	100	0.23	0.74	0.43	na	% ww

Table E.6.3-18. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	4/4	100	0.0025 J	0.0048 J	0.0031	na	mg/kg ww
Arsenic	4/4	100	2.230	3.310	2.645	na	mg/kg ww
Arsenic (inorganic)	4/4	100	0.080	0.330	0.24	na	mg/kg ww
Cadmium	4/4	100	0.2700	0.8530	0.4835	na	mg/kg ww
Chromium	1/4	25	0.04 J	0.04 J	0.03	0.06 – 0.07	mg/kg ww
Cobalt	4/4	100	0.0531 J	0.0836 J	0.0681	na	mg/kg ww
Copper	4/4	100	12.4	49.9	26.8	na	mg/kg ww
Lead	4/4	100	0.0718	0.2690	0.136	na	mg/kg ww
Mercury	4/4	100	0.020	0.025	0.022	na	mg/kg ww
Molybdenum	4/4	100	0.0599	0.0936	0.0727	na	mg/kg ww
Nickel	4/4	100	0.075 J	0.110	0.088	na	mg/kg ww
Selenium	4/4	100	0.133	0.206	0.172	na	mg/kg ww
Silver	4/4	100	0.1120	0.4060	0.2268	na	mg/kg ww
Thallium	4/4	100	0.0004 J	0.0008 J	0.0006	na	mg/kg ww
Vanadium	3/4	75	0.11 J	0.14	0.11	0.13	mg/kg ww
Zinc	4/4	100	24.4	33.6	27.9	na	mg/kg ww
Organometals							
Monobutyltin as ion	4/4	100	1.3 J	1.5	1.4	na	µg/kg ww
Dibutyltin as ion	4/4	100	0.85 J	1.4 J	1.2	na	µg/kg ww
Tributyltin as ion	2/4	50	0.50 J	0.55 J	0.64	1.5	µg/kg ww
Tetrabutyltin as ion	0/4	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
2-Methylnaphthalene	2/4	50	0.94 J	0.97 J	0.68	0.81	µg/kg ww
Acenaphthene	4/4	100	0.44 J	0.67 J	0.54	na	µg/kg ww
Acenaphthylene	1/4	25	0.61 J	0.61 J	0.42	0.72	µg/kg ww
Anthracene	4/4	100	0.53 J	1.2	0.77	na	µg/kg ww
Benzo(a)anthracene	4/4	100	0.63 J	0.85	0.76	na	µg/kg ww
Benzo(a)pyrene	0/4	0	nd	nd	0.36	0.72	µg/kg ww
Benzo(b)fluoranthene	0/4	0	nd	nd	0.36	0.72	µg/kg ww
Benzo(g,h,i)perylene	0/4	0	nd	nd	0.36	0.72	µg/kg ww
Benzo(k)fluoranthene	0/4	0	nd	nd	0.36	0.72	µg/kg ww
Total benzofluoranthenes	0/4	0	nd	nd	0.36	nc	µg/kg ww
Chrysene	4/4	100	0.64 J	1.0	0.77	na	µg/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	0/4	0	nd	nd	0.36	0.72	µg/kg ww
Dibenzofuran	4/4	100	0.32 J	0.51 J	0.43	na	µg/kg ww
Fluoranthene	4/4	100	1.4	1.9	1.7	na	µg/kg ww
Fluorene	4/4	100	0.37 J	0.49 J	0.45	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/4	0	nd	nd	0.36	0.72	µg/kg ww
Naphthalene	0/4	0	nd	nd	1.4	2.2 – 3.5	µg/kg ww
Phenanthrene	4/4	100	1.4	1.6	1.5	na	µg/kg ww
Pyrene	4/4	100	0.69 J	1.1	0.86	na	µg/kg ww
Total HPAH	4/4	100	3.5 J	4.8	4.1	nc	µg/kg ww
Total LPAH	4/4	100	2.7 J	4.4 J	3.4	nc	µg/kg ww
Carcinogenic PAHs – Mammal	4/4	100	0.68 J	0.71	0.70	na	µg/kg ww
Total PAH	4/4	100	6.3 J	9.2 J	7.5	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	1/4	25	100 J	100 J	70	66 – 230	µg/kg ww
Butyl benzyl phthalate	3/4	75	1,700	1,800	1,400	570	µg/kg ww
Diethyl phthalate	3/4	75	160 J	200 J	290	1,200	µg/kg ww
Dimethyl phthalate	1/4	25	76 J	76 J	230	570 – 580	µg/kg ww
Di-n-butyl phthalate	0/4	0	nd	nd	290	570 – 580	µg/kg ww
Di-n-octyl phthalate	0/4	0	nd	nd	1,200	570 – 2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
1,2-Dichlorobenzene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
1,3-Dichlorobenzene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
1,4-Dichlorobenzene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/4	0	nd	nd	1,200	1,200 – 2,900	µg/kg ww
2,4,6-Trichlorophenol	0/4	0	nd	nd	1,200	1,200 – 2,900	µg/kg ww
2,4-Dichlorophenol	0/4	0	nd	nd	600	1,200	µg/kg ww
2,4-Dimethylphenol	0/4	0	nd	nd	600	1,200	µg/kg ww
2,4-Dinitrophenol	0/4	0	nd	nd	6,000	12,000	µg/kg ww
2,4-Dinitrotoluene	0/4	0	nd	nd	1,200	1,200 – 2,900	µg/kg ww
2,6-Dinitrotoluene	0/4	0	nd	nd	1,200	570 – 2,900	µg/kg ww
2-Chlorophenol	0/4	0	nd	nd	600	1,200	µg/kg ww
2-Methylphenol	0/4	0	nd	nd	600	1,200	µg/kg ww
2-Nitroaniline	0/4	0	nd	nd	1,500	2,900	µg/kg ww
2-Nitrophenol	0/4	0	nd	nd	1,200	570 – 2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/4	0	nd	nd	15,000	29,000	µg/kg ww
3-Nitroaniline	0/4	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/4	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/4	0	nd	nd	290	570 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/4	0	nd	nd	1,500	2,900	µg/kg ww
4-Chloroaniline	0/4	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/4	0	nd	nd	290	570 – 580	µg/kg ww
4-Methylphenol	0/4	0	nd	nd	600	1,200	µg/kg ww
4-Nitroaniline	0/4	0	nd	nd	2,500	2,900 – 5,800	µg/kg ww
4-Nitrophenol	0/4	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww
Aniline	0/4	0	nd	nd	6,000	12,000	µg/kg ww
Benzidine	0/4	0	nd	nd	36,000	72,000	µg/kg ww
Benzoic acid	0/4	0	nd	nd	6,000	12,000	µg/kg ww
Benzyl alcohol	0/4	0	nd	nd	520	570 – 1,200	µg/kg ww
bis(2-chloroethoxy)methane	0/4	0	nd	nd	1,200	570 – 2,900	µg/kg ww
bis(2-chloroethyl)ether	0/4	0	nd	nd	520	570 – 1,200	µg/kg ww
bis(2-chloroisopropyl)ether	0/4	0	nd	nd	290	570 – 580	µg/kg ww
Carbazole	0/4	0	nd	nd	1,500	2,900	µg/kg ww
Hexachlorobenzene	0/4	0	nd	nd	0.75	1.5	µg/kg ww
Hexachlorobutadiene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/4	0	nd	nd	36,000	72,000	µg/kg ww
Hexachloroethane	0/4	0	nd	nd	290	570 – 580	µg/kg ww
Isophorone	0/4	0	nd	nd	290	570 – 580	µg/kg ww
Nitrobenzene	0/4	0	nd	nd	290	570 – 580	µg/kg ww
N-Nitrosodimethylamine	0/4	0	nd	nd	4,900	2,900 – 12,000	µg/kg ww
N-Nitroso-di-n-propylamine	0/4	0	nd	nd	290	570 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/4	0	nd	nd	290	570 – 580	µg/kg ww
Pentachlorophenol	0/4	0	nd	nd	2.8	3.3 – 11	µg/kg ww
Phenol	0/4	0	nd	nd	750	1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	0/2	0	nd	nd	2.59	4.58 – 5.76	ng/kg ww
PCB-002	0/2	0	nd	nd	1.88	3.24 – 4.29	ng/kg ww
PCB-003	0/2	0	nd	nd	3.69	7.36 – 7.38	ng/kg ww
PCB-004	2/2	100	29.3 J	65.2	47.3	na	ng/kg ww
PCB-005	0/2	0	nd	nd	3.43	5.72 – 8.01	ng/kg ww
PCB-006	1/2	50	13.9 J	13.9 J	8.96	8.05	ng/kg ww
PCB-007	0/2	0	nd	nd	3.41	5.69 – 7.96	ng/kg ww
PCB-008	2/2	100	8.47 J	14.7 J	11.6	na	ng/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-009	0/2	0	nd	nd	3.38	5.63 – 7.87	ng/kg ww
PCB-010	0/2	0	nd	nd	3.51	5.84 – 8.18	ng/kg ww
PCB-011	2/2	100	9.74 J	10.8 J	10.3	na	ng/kg ww
PCB-012	0/2	0	nd	nd	3.61	6.02 – 8.42	ng/kg ww
PCB-013	0/2	0	nd	nd	C12	0	ng/kg ww
PCB-014	0/2	0	nd	nd	3.45	5.75 – 8.04	ng/kg ww
PCB-015	2/2	100	880	913	897	na	ng/kg ww
PCB-016	2/2	100	62.3	236	149	na	ng/kg ww
PCB-017	2/2	100	165	568	367	na	ng/kg ww
PCB-018	2/2	100	1,080 C	2,670 C	1,880	na	ng/kg ww
PCB-019	2/2	100	9.78 J	44.7	27.2	na	ng/kg ww
PCB-020	2/2	100	10,500 C	12,700 C	11,600	na	ng/kg ww
PCB-021	0/2	0	nd	nd	2.06	3.07 – 5.16	ng/kg ww
PCB-022	2/2	100	698	1,390	1,040	na	ng/kg ww
PCB-023	0/2	0	nd	nd	2.07	3.09 – 5.19	ng/kg ww
PCB-024	0/2	0	nd	nd	0.388	0.685 – 0.866	ng/kg ww
PCB-025	2/2	100	86.0	289	188	na	ng/kg ww
PCB-026	2/2	100	716 C	1,900 C	1,310	na	ng/kg ww
PCB-027	2/2	100	17.1 J	80.2	48.7	na	ng/kg ww
PCB-028	2/2	100	C20	C20	nc	na	ng/kg ww
PCB-029	2/2	100	C26	C26	nc	na	ng/kg ww
PCB-030	2/2	100	C18	C18	nc	na	ng/kg ww
PCB-031	2/2	100	2,130	5,290	3,710	na	ng/kg ww
PCB-032	2/2	100	117	490	304	na	ng/kg ww
PCB-033	0/2	0	nd	nd	C21	0	ng/kg ww
PCB-034	2/2	100	3.14 J	10.6 J	6.87	na	ng/kg ww
PCB-035	0/2	0	nd	nd	2.35	3.50 – 5.89	ng/kg ww
PCB-036	0/2	0	nd	nd	2.22	3.31 – 5.56	ng/kg ww
PCB-037	2/2	100	3,260	3,530	3,400	na	ng/kg ww
PCB-038	0/2	0	nd	nd	1.99	2.97 – 4.99	ng/kg ww
PCB-039	2/2	100	11.3 J	15.0 J	13.2	na	ng/kg ww
PCB-040	2/2	100	879 C	2,520 C	1,700	na	ng/kg ww
PCB-041	2/2	100	C40	C40	nc	na	ng/kg ww
PCB-042	2/2	100	1,570	3,150	2,360	na	ng/kg ww
PCB-043	2/2	100	543	873	708	na	ng/kg ww
PCB-044	2/2	100	9,300 C	15,300 C	12,300	na	ng/kg ww
PCB-045	2/2	100	85.2 C	456 C	271	na	ng/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-046	2/2	100	31.9 J	122	77.0	na	ng/kg ww
PCB-047	2/2	100	C44	C44	nc	na	ng/kg ww
PCB-048	2/2	100	556	1,700	1,130	na	ng/kg ww
PCB-049	2/2	100	10,300 C	17,400 C	13,900	na	ng/kg ww
PCB-050	2/2	100	150 C	656 C	403	na	ng/kg ww
PCB-051	2/2	100	C45	C45	nc	na	ng/kg ww
PCB-052	2/2	100	22,100	33,900	28,000	na	ng/kg ww
PCB-053	2/2	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/2	50	1.87 J	1.87 J	1.49	2.21	ng/kg ww
PCB-055	0/2	0	nd	nd	19.4	5.63 – 71.9	ng/kg ww
PCB-056	2/2	100	2,680	4,430	3,560	na	ng/kg ww
PCB-057	2/2	100	55.9	111	83.5	na	ng/kg ww
PCB-058	2/2	100	89.0	106	97.5	na	ng/kg ww
PCB-059	2/2	100	549 C	1,180 C	865	na	ng/kg ww
PCB-060	2/2	100	5,010	5,530	5,270	na	ng/kg ww
PCB-061	2/2	100	17,900 C	27,300 C	22,600	na	ng/kg ww
PCB-062	2/2	100	C59	C59	nc	na	ng/kg ww
PCB-063	2/2	100	832	1,170	1,000	na	ng/kg ww
PCB-064	2/2	100	3,440	5,450	4,450	na	ng/kg ww
PCB-065	2/2	100	C44	C44	nc	na	ng/kg ww
PCB-066	2/2	100	21,600	25,400	23,500	na	ng/kg ww
PCB-067	2/2	100	148	322	235	na	ng/kg ww
PCB-068	2/2	100	128	235	182	na	ng/kg ww
PCB-069	2/2	100	C49	C49	nc	na	ng/kg ww
PCB-070	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-071	2/2	100	C40	C40	nc	na	ng/kg ww
PCB-072	2/2	100	256	525	391	na	ng/kg ww
PCB-073	2/2	100	293	373	333	na	ng/kg ww
PCB-074	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-075	2/2	100	C59	C59	nc	na	ng/kg ww
PCB-076	2/2	100	C61	C61	nc	na	ng/kg ww
PCB-077	2/2	100	1,840	2,250	2,050	na	ng/kg ww
PCB-078	0/2	0	nd	nd	19.6	5.69 – 72.7	ng/kg ww
PCB-079	2/2	100	365	500	433	na	ng/kg ww
PCB-080	0/2	0	nd	nd	18.1	5.24 – 67.0	ng/kg ww
PCB-081	2/2	100	94.4	123	109	na	ng/kg ww
PCB-082	2/2	100	1,620	2,500	2,060	na	ng/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-083	2/2	100	24,600 C	35,700 C	30,200	na	ng/kg ww
PCB-084	2/2	100	2,070	4,080	3,080	na	ng/kg ww
PCB-085	2/2	100	6,870 C	9,070 C	7,970	na	ng/kg ww
PCB-086	2/2	100	18,900 C	27,400 C	23,200	na	ng/kg ww
PCB-087	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-088	2/2	100	3,200 C	5,150 C	4,180	na	ng/kg ww
PCB-089	1/2	50	52.3	52.3	32.7	26.0	ng/kg ww
PCB-090	2/2	100	55,900 C	83,600 C	69,800	na	ng/kg ww
PCB-091	2/2	100	C88	C88	nc	na	ng/kg ww
PCB-092	2/2	100	10,800	14,900	12,900	na	ng/kg ww
PCB-093	2/2	100	18,200 C	29,700 C	24,000	na	ng/kg ww
PCB-094	2/2	100	31.3 J	99.2	65.3	na	ng/kg ww
PCB-095	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-096	1/2	50	59.1	59.1	33.1	14.0	ng/kg ww
PCB-097	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-098	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-099	2/2	100	C83	C83	nc	na	ng/kg ww
PCB-100	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-101	2/2	100	C90	C90	nc	na	ng/kg ww
PCB-102	2/2	100	C93	C93	nc	na	ng/kg ww
PCB-103	2/2	100	410	679	545	na	ng/kg ww
PCB-104	0/2	0	nd	nd	4.72	3.88 – 15.0	ng/kg ww
PCB-105	2/2	100	18,900	21,300	20,100	na	ng/kg ww
PCB-106	0/2	0	nd	nd	16.7	29.8 – 37.0	ng/kg ww
PCB-107	2/2	100	1,430 C	2,510 C	1,970	na	ng/kg ww
PCB-108	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-109	2/2	100	2,650	4,030	3,340	na	ng/kg ww
PCB-110	2/2	100	15,000 C	26,700 C	20,900	na	ng/kg ww
PCB-111	2/2	100	24.1 J	25.9 J	25.0	na	ng/kg ww
PCB-112	0/2	0	nd	nd	7.48	12.3 – 17.6	ng/kg ww
PCB-113	2/2	100	C90	C90	nc	na	ng/kg ww
PCB-114	2/2	100	1,110	1,250	1,180	na	ng/kg ww
PCB-115	2/2	100	C110	C110	nc	na	ng/kg ww
PCB-116	2/2	100	C85	C85	nc	na	ng/kg ww
PCB-117	2/2	100	C85	C85	nc	na	ng/kg ww
PCB-118	2/2	100	50,700	62,100	56,400	na	ng/kg ww
PCB-119	2/2	100	C86	C86	nc	na	ng/kg ww

Table E.6.3-18, cont.   Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-120	2/2	100	81.0	152	117	na	ng/kg ww
PCB-121	0/2	0	nd	nd	7.85	12.9 – 18.5	ng/kg ww
PCB-122	2/2	100	409	474	442	na	ng/kg ww
PCB-123	2/2	100	964	1,110	1,040	na	ng/kg ww
PCB-124	2/2	100	C107	C107	nc	na	ng/kg ww
PCB-125	2/2	100	C86	C86	nc	na	ng/kg ww
PCB-126	2/2	100	94.0	142	118	na	ng/kg ww
PCB-127	2/2	100	152	197	175	na	ng/kg ww
PCB-128	2/2	100	10,400 C	11,700 C	11,100	na	ng/kg ww
PCB-129	2/2	100	79,800 C	94,600 C	87,200	na	ng/kg ww
PCB-130	2/2	100	3,760	4,680	4,220	na	ng/kg ww
PCB-131	2/2	100	331	539	435	na	ng/kg ww
PCB-132	2/2	100	7,230	10,200	8,720	na	ng/kg ww
PCB-133	2/2	100	1,500	1,900	1,700	na	ng/kg ww
PCB-134	2/2	100	1,640 C	2,540 C	2,090	na	ng/kg ww
PCB-135	2/2	100	18,200 C	26,400 C	22,300	na	ng/kg ww
PCB-136	2/2	100	1,650	3,340	2,500	na	ng/kg ww
PCB-137	2/2	100	2,690	3,190	2,940	na	ng/kg ww
PCB-138	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-139	2/2	100	792 C	1,350 C	1,070	na	ng/kg ww
PCB-140	2/2	100	C139	C139	nc	na	ng/kg ww
PCB-141	2/2	100	10,500	11,700	11,100	na	ng/kg ww
PCB-142	0/2	0	nd	nd	29.0	27.9 – 88.2	ng/kg ww
PCB-143	2/2	100	C134	C134	nc	na	ng/kg ww
PCB-144	2/2	100	1,820	2,780	2,300	na	ng/kg ww
PCB-145	2/2	100	3.40 J	11.4 J	7.40	na	ng/kg ww
PCB-146	2/2	100	12,600	16,400	14,500	na	ng/kg ww
PCB-147	2/2	100	47,600 C	64,300 C	56,000	na	ng/kg ww
PCB-148	2/2	100	69.8	153	111	na	ng/kg ww
PCB-149	2/2	100	C147	C147	nc	na	ng/kg ww
PCB-150	2/2	100	94.4	150	122	na	ng/kg ww
PCB-151	2/2	100	C135	C135	nc	na	ng/kg ww
PCB-152	2/2	100	8.58 J	23.1 J	15.8	na	ng/kg ww
PCB-153	2/2	100	77,500 C	99,200 C	88,400	na	ng/kg ww
PCB-154	2/2	100	C135	C135	nc	na	ng/kg ww
PCB-155	2/2	100	11.6 J	13.0 J	12.3	na	ng/kg ww
PCB-156	2/2	100	8,330 C	9,880 C	9,110	na	ng/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-157	2/2	100	C156	C156	nc	na	ng/kg ww
PCB-158	2/2	100	4,380	6,680	5,530	na	ng/kg ww
PCB-159	2/2	100	392	399	396	na	ng/kg ww
PCB-160	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/2	0	nd	nd	19.2	18.5 – 58.3	ng/kg ww
PCB-162	2/2	100	173	232	203	na	ng/kg ww
PCB-163	2/2	100	C129	C129	nc	na	ng/kg ww
PCB-164	2/2	100	3,160	4,060	3,610	na	ng/kg ww
PCB-165	1/2	50	59.4	59.4	44.3	58.3	ng/kg ww
PCB-166	2/2	100	C128	C128	nc	na	ng/kg ww
PCB-167	2/2	100	3,500	4,000	3,750	na	ng/kg ww
PCB-168	2/2	100	C153	C153	nc	na	ng/kg ww
PCB-169	1/2	50	4.29	4.29	3.05	3.60	ng/kg ww
PCB-170	2/2	100	9,870	10,300	10,100	na	ng/kg ww
PCB-171	2/2	100	4,220 C	4,820 C	4,520	na	ng/kg ww
PCB-172	2/2	100	2,020	2,120	2,070	na	ng/kg ww
PCB-173	2/2	100	C171	C171	nc	na	ng/kg ww
PCB-174	2/2	100	7,230	7,710	7,470	na	ng/kg ww
PCB-175	2/2	100	433	602	518	na	ng/kg ww
PCB-176	2/2	100	1,300	1,790	1,550	na	ng/kg ww
PCB-177	2/2	100	10,200	10,700	10,500	na	ng/kg ww
PCB-178	2/2	100	4,140	5,130	4,640	na	ng/kg ww
PCB-179	2/2	100	4,700	5,860	5,280	na	ng/kg ww
PCB-180	2/2	100	33,700 C	38,200 C	36,000	na	ng/kg ww
PCB-181	2/2	100	103	116	110	na	ng/kg ww
PCB-182	2/2	100	165	186	176	na	ng/kg ww
PCB-183	2/2	100	10,600 C	13,900 C	12,300	na	ng/kg ww
PCB-184	2/2	100	10.8 J	13.2 J	12.0	na	ng/kg ww
PCB-185	2/2	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/2	0	nd	nd	0.794	0.994 – 2.18	ng/kg ww
PCB-187	2/2	100	26,000	32,000	29,000	na	ng/kg ww
PCB-188	2/2	100	44.6	45.7	45.2	na	ng/kg ww
PCB-189	2/2	100	499	508	504	na	ng/kg ww
PCB-190	2/2	100	3,330	3,890	3,610	na	ng/kg ww
PCB-191	2/2	100	612	760	686	na	ng/kg ww
PCB-192	0/2	0	nd	nd	1.02	1.28 – 2.81	ng/kg ww
PCB-193	2/2	100	C180	C180	nc	na	ng/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-194	2/2	100	2,760	3,230	3,000	na	ng/kg ww
PCB-195	2/2	100	1,050	1,160	1,110	na	ng/kg ww
PCB-196	2/2	100	1,510	1,640	1,580	na	ng/kg ww
PCB-197	2/2	100	491 C	530 C	511	na	ng/kg ww
PCB-198	2/2	100	3,290 C	3,560 C	3,430	na	ng/kg ww
PCB-199	2/2	100	C198	C198	nc	na	ng/kg ww
PCB-200	2/2	100	C197	C197	nc	na	ng/kg ww
PCB-201	2/2	100	589	712	651	na	ng/kg ww
PCB-202	2/2	100	1,680	1,740	1,710	na	ng/kg ww
PCB-203	2/2	100	2,720	3,050	2,890	na	ng/kg ww
PCB-204	1/2	50	1.89 J	1.89 J	1.16	0.855	ng/kg ww
PCB-205	2/2	100	137	189	163	na	ng/kg ww
PCB-206	2/2	100	395	571	483	na	ng/kg ww
PCB-207	2/2	100	53.9	69.2	61.6	na	ng/kg ww
PCB-208	2/2	100	128	251	190	na	ng/kg ww
PCB-209	2/2	100	48.9	118	83.5	na	ng/kg ww
Total PCB congeners	2/2	100	790,100 J	1,047,000 J	919,000	nc	ng/kg ww
Aroclor-1016	0/5	0	nd	nd	16	15 – 100	µg/kg ww
Aroclor-1221	0/5	0	nd	nd	22	29 – 100	µg/kg ww
Aroclor-1232	0/5	0	nd	nd	16	15 – 100	µg/kg ww
Aroclor-1242	0/5	0	nd	nd	16	15 – 100	µg/kg ww
Aroclor-1248	4/5	80	270	420 J	270	100	µg/kg ww
Aroclor-1254	5/5	100	410	950 J	700	na	µg/kg ww
Aroclor-1260	5/5	100	250	820	620	na	µg/kg ww
Total PCBs	5/5	100	660	2,190 J	1,600	nc	µg/kg ww
PCB TEQ – Bird	2/2	100	115.0	142.0	129	na	ng/kg ww
PCB TEQ – Fish	2/2	100	1.200	1.420	1.31	na	ng/kg ww
PCB TEQ – Mammal	2/2	100	12.70	17.1	14.9	na	ng/kg ww
Pesticides							
2,4'-DDD	1/4	25	15 JN	15 JN	6.4	4.6 – 8.9	µg/kg ww
2,4'-DDE	0/4	0	nd	nd	1.7	1.5 – 7.2	µg/kg ww
2,4'-DDT	4/4	100	53 JN	89 JN	71	na	µg/kg ww
4,4'-DDD	1/4	25	1.6 JN	1.6 JN	1.2	1.5 – 3.3	µg/kg ww
4,4'-DDE	4/4	100	16 JN	24 JN	21	na	µg/kg ww
4,4'-DDT	4/4	100	45 JN	68 JN	58	na	µg/kg ww
Total DDTs	4/4	100	119 JN	181 JN	154	nc	µg/kg ww

Table E.6.3-18, cont. Summary statistics for slender crab, hepatopancreas

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Aldrin	0/4	0	nd	nd	0.75	1.5	µg/kg ww
Dieldrin	0/4	0	nd	nd	3.9	7.2 – 9.1	µg/kg ww
Total aldrin/dieldrin	0/4	0	nd	nd	3.9	nc	µg/kg ww
alpha-BHC	1/4	25	0.41 JN	0.41 JN	0.67	1.5	µg/kg ww
beta-BHC	0/4	0	nd	nd	0.83	1.5 – 2.1	µg/kg ww
gamma-BHC	0/4	0	nd	nd	0.75	1.5	µg/kg ww
delta-BHC	0/4	0	nd	nd	0.79	1.5 – 1.8	µg/kg ww
alpha-Chlordane	0/4	0	nd	nd	0.75	1.5	µg/kg ww
gamma-Chlordane	4/4	100	23 JN	36 JN	30	na	µg/kg ww
alpha-Endosulfan	1/4	25	3.4 JN	3.4 JN	1.4	1.5	µg/kg ww
beta-Endosulfan	0/4	0	nd	nd	1.3	2.0 – 3.6	µg/kg ww
Endosulfan sulfate	0/4	0	nd	nd	1.5	1.5 – 7.2	µg/kg ww
Endrin	0/4	0	nd	nd	1.5	1.5 – 7.2	µg/kg ww
Endrin aldehyde	0/4	0	nd	nd	2.4	1.9 – 8.4	µg/kg ww
Endrin ketone	0/4	0	nd	nd	1.3	2.5 – 2.8	µg/kg ww
Heptachlor	0/4	0	nd	nd	0.75	1.5	µg/kg ww
Heptachlor epoxide	0/4	0	nd	nd	2.3	3.1 – 6.1	µg/kg ww
Methoxychlor	0/4	0	nd	nd	0.85	1.5 – 2.1	µg/kg ww
Mirex	0/4	0	nd	nd	0.75	1.5	µg/kg ww
Toxaphene	0/4	0	nd	nd	170	290 – 360	µg/kg ww
Total chlordane	4/4	100	23 JN	36 JN	30	nc	µg/kg ww
Conventional parameters							
Total solids	5/5	100	11.4	14.76	13.1	na	% ww
Lipid	5/5	100	1.9	3.6	2.6	na	% ww

Table E.6.3-19. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	12/12	100	0.0014 JM	0.0068 JM	0.0027	na	mg/kg ww
Arsenic	12/12	100	1.844 M	3.489 M	2.622	na	mg/kg ww
Arsenic (inorganic)	4/4	100	0.046 M	0.123 M	0.098	na	mg/kg ww
Cadmium	12/12	100	0.0954 M	0.2951 M	0.1699	na	mg/kg ww
Chromium	3/12	25	0.07 JM	0.08 JM	0.03	0.03 – 0.05	mg/kg ww
Cobalt	12/12	100	0.0241 JM	0.0376 JM	0.0302	na	mg/kg ww
Copper	12/12	100	6.9 M	20.5 M	12.6	na	mg/kg ww
Lead	12/12	100	0.0313 M	0.1181 M	0.0610	na	mg/kg ww
Mercury	12/12	100	0.022 M	0.049 M	0.039	na	mg/kg ww
Molybdenum	12/12	100	0.0276 M	0.0399 M	0.0329	na	mg/kg ww
Nickel	12/12	100	0.052 JM	0.079 M	0.062	na	mg/kg ww
Selenium	12/12	100	0.152 M	0.245 M	0.198	na	mg/kg ww
Silver	12/12	100	0.0706 M	0.1743 M	0.1091	na	mg/kg ww
Thallium	12/12	100	0.0020 JM	0.0030 JM	0.003	na	mg/kg ww
Vanadium	9/12	75	0.13 M	0.17 M	0.13	0.08 – 0.09	mg/kg ww
Zinc	12/12	100	25.6 M	37.3 M	32.4	na	mg/kg ww
Organometals							
Monobutyltin as ion	12/12	100	1.4 JM	1.5 JM	1.5	na	µg/kg ww
Dibutyltin as ion	12/12	100	1.30 JM	1.5 JM	1.4	na	µg/kg ww
Tributyltin as ion	6/12	50	1.20 JM	1.20 JM	0.79	0.8	µg/kg ww
Tetrabutyltin as ion	0/12	0	nd	nd	0.38	0.8	µg/kg ww
PAHs							
2-Chloronaphthalene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
2-Methylnaphthalene	6/12	50	0.55 JM	0.65 JM	0.37	0.24 – 0.30	µg/kg ww
Acenaphthene	12/12	100	0.23 JM	0.70 JM	0.50	na	µg/kg ww
Acenaphthylene	4/12	33	0.31 JM	0.69 JM	0.32	0.36	µg/kg ww
Anthracene	12/12	100	0.25 JM	0.9 M	0.46	na	µg/kg ww
Benzo(a)anthracene	12/12	100	0.28 JM	0.76 M	0.66	na	µg/kg ww
Benzo(a)pyrene	1/12	8	0.35 M	0.35 M	0.19	0.36	µg/kg ww
Benzo(b)fluoranthene	1/12	8	0.34 M	0.34 M	0.19	0.36	µg/kg ww
Benzo(g,h,i)perylene	1/12	8	0.38 M	0.38 M	0.20	0.36	µg/kg ww
Benzo(k)fluoranthene	1/12	8	0.33 M	0.33 M	0.19	0.36	µg/kg ww
Total benzofluoranthenes	1/12	8	0.45 M	0.45 M	0.20	nc	µg/kg ww
Chrysene	12/12	100	0.34 JM	0.8 M	0.67	na	µg/kg ww

Table E.6.3-19, cont.   Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	1/12	8	0.36 M	0.36 M	0.20	0.36	µg/kg ww
Dibenzofuran	12/12	100	0.18 JM	0.30 JM	0.23	na	µg/kg ww
Fluoranthene	12/12	100	0.7 JM	1.0 JM	0.88	na	µg/kg ww
Fluorene	12/12	100	0.19 JM	0.32 JM	0.24	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	1/12	8	0.38 M	0.38 M	0.20	0.36	µg/kg ww
Naphthalene	1/12	8	1.9 M	1.9 M	0.63	0.8 – 1.3	µg/kg ww
Phenanthrene	12/12	100	0.7 M	0.9 JM	0.76	na	µg/kg ww
Pyrene	12/12	100	0.36 JM	0.51 JM	0.44	na	µg/kg ww
Total HPAH	12/12	100	1.6 JM	2.9 JM	1.9	nc	µg/kg ww
Total LPAH	12/12	100	0.9 JM	3.0 JM	1.4	nc	µg/kg ww
Carcinogenic PAHs – Mammal	12/12	100	0.45 M	0.67 M	0.65	na	µg/kg ww
Total PAH	12/12	100	2.5 JM	6.0 JM	3.3	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	3/12	25	100 JM	100 JM	40	33 – 100	µg/kg ww
Butyl benzyl phthalate	9/12	75	900 M	1,400 M	950	130	µg/kg ww
Diethyl phthalate	10/12	83	150 JM	890 JM	480	200	µg/kg ww
Dimethyl phthalate	4/12	33	180 JM	420 JM	200	110 – 290	µg/kg ww
Di-n-butyl phthalate	0/12	0	nd	nd	110	100 – 290	µg/kg ww
Di-n-octyl phthalate	0/12	0	nd	nd	480	190 – 1,500	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
1,2-Dichlorobenzene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
1,3-Dichlorobenzene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
1,4-Dichlorobenzene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
2,4,5-Trichlorophenol	0/12	0	nd	nd	520	300 – 1,500	µg/kg ww
2,4,6-Trichlorophenol	0/12	0	nd	nd	520	300 – 1,500	µg/kg ww
2,4-Dichlorophenol	0/12	0	nd	nd	250	200 – 600	µg/kg ww
2,4-Dimethylphenol	0/12	0	nd	nd	250	200 – 600	µg/kg ww
2,4-Dinitrophenol	0/12	0	nd	nd	2,500	2,000 – 6,000	µg/kg ww
2,4-Dinitrotoluene	0/12	0	nd	nd	490	300 – 1,500	µg/kg ww
2,6-Dinitrotoluene	0/12	0	nd	nd	450	190 – 1,500	µg/kg ww
2-Chlorophenol	0/12	0	nd	nd	250	200 – 600	µg/kg ww
2-Methylphenol	0/12	0	nd	nd	250	200 – 600	µg/kg ww
2-Nitroaniline	0/12	0	nd	nd	630	600 – 1,500	µg/kg ww
2-Nitrophenol	0/12	0	nd	nd	480	190 – 1,500	µg/kg ww
3,3'-Dichlorobenzidine	0/12	0	nd	nd	6,300	6,000 – 15,000	µg/kg ww
3-Nitroaniline	0/12	0	nd	nd	1,200	1,100 – 2,900	µg/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/12	0	nd	nd	1,200	1,100 – 2,900	µg/kg ww
4-Bromophenyl phenyl ether	0/12	0	nd	nd	120	110 – 290	µg/kg ww
4-Chloro-3-methylphenol	0/12	0	nd	nd	630	600 – 1,500	µg/kg ww
4-Chloroaniline	0/12	0	nd	nd	630	600 – 1,500	µg/kg ww
4-Chlorophenyl phenyl ether	0/12	0	nd	nd	120	110 – 290	µg/kg ww
4-Methylphenol	0/12	0	nd	nd	250	200 – 600	µg/kg ww
4-Nitroaniline	0/12	0	nd	nd	1,000	700 – 2,900	µg/kg ww
4-Nitrophenol	0/12	0	nd	nd	1,200	1,100 – 2,900	µg/kg ww
Aniline	0/12	0	nd	nd	2,500	2,000 – 6,000	µg/kg ww
Benzidine	0/12	0	nd	nd	15,000	14,000 – 36,000	µg/kg ww
Benzoic acid	0/12	0	nd	nd	2,500	2,000 – 6,000	µg/kg ww
Benzyl alcohol	1/12	8	180 JM	180 JM	220	130 – 600	µg/kg ww
bis(2-chloroethoxy)methane	0/12	0	nd	nd	440	190 – 1,500	µg/kg ww
bis(2-chloroethyl)ether	0/12	0	nd	nd	210	130 – 600	µg/kg ww
bis(2-chloroisopropyl)ether	0/12	0	nd	nd	120	110 – 290	µg/kg ww
Carbazole	0/12	0	nd	nd	630	600 – 1,500	µg/kg ww
Hexachlorobenzene	0/12	0	nd	nd	0.38	0.8	µg/kg ww
Hexachlorobutadiene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
Hexachlorocyclopentadiene	0/12	0	nd	nd	15,000	14,000 – 36,000	µg/kg ww
Hexachloroethane	0/12	0	nd	nd	120	110 – 290	µg/kg ww
Isophorone	0/12	0	nd	nd	120	110 – 290	µg/kg ww
Nitrobenzene	0/12	0	nd	nd	120	110 – 290	µg/kg ww
N-Nitrosodimethylamine	0/12	0	nd	nd	1,800	900 – 6,000	µg/kg ww
N-Nitroso-di-n-propylamine	0/12	0	nd	nd	120	110 – 290	µg/kg ww
N-Nitrosodiphenylamine	0/12	0	nd	nd	120	110 – 290	µg/kg ww
Pentachlorophenol	0/12	0	nd	nd	26	1.7 – 200	µg/kg ww
Phenol	1/12	8	500 JM	500 JM	350	300 – 800	µg/kg ww
Polychlorinated biphenyls							
PCB-001	2/4	50	2.50 JM	3.80 JM	1.84	0.95 – 1.16	ng/kg ww
PCB-002	4/4	100	1.24 JM	3.01 M	1.86	na	ng/kg ww
PCB-003	4/4	100	2.60 JM	12.90 JM	5.20	na	ng/kg ww
PCB-004	4/4	100	12.3 JM	29.5 M	20.1	na	ng/kg ww
PCB-005	1/4	25	2.64 JM	2.64 JM	1.08	0.98 – 1.42	ng/kg ww
PCB-006	4/4	100	3.36 JM	6.3 JM	4.74	na	ng/kg ww
PCB-007	4/4	100	2.07 JM	25.40 M	8.09	na	ng/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-008	4/4	100	4.31 JM	7.5 JM	5.58	na	ng/kg ww
PCB-009	4/4	100	2.08 JM	3.06 JM	2.60	na	ng/kg ww
PCB-010	1/4	25	2.65 JM	2.65 JM	1.09	0.99 – 1.43	ng/kg ww
PCB-011	4/4	100	4.45 JM	27.9 JM	10.5	na	ng/kg ww
PCB-012	4/4	100	2.89 CJM	4.36 CJM	3.54	na	ng/kg ww
PCB-013	4/4	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/4	0	nd	nd	0.585	0.98 – 1.41	ng/kg ww
PCB-015	4/4	100	384 M	500 M	421	na	ng/kg ww
PCB-016	4/4	100	25.5 M	100 M	61.1	na	ng/kg ww
PCB-017	4/4	100	64 M	245 M	151	na	ng/kg ww
PCB-018	4/4	100	510 CM	1,110 CM	808	na	ng/kg ww
PCB-019	4/4	100	4.42 JM	20.2 M	11.3	na	ng/kg ww
PCB-020	4/4	100	4,800 CM	5,900 CM	5,370	na	ng/kg ww
PCB-021	2/4	50	16.10 CM	85.10 CM	25.5	0.70 – 1.09	ng/kg ww
PCB-022	4/4	100	307 M	570 M	475	na	ng/kg ww
PCB-023	1/4	25	1.92 M	1.92 M	0.839	0.70 – 1.09	ng/kg ww
PCB-024	4/4	100	0.376 JM	1.590 JM	1.05	na	ng/kg ww
PCB-025	4/4	100	31.9 M	120 M	77.0	na	ng/kg ww
PCB-026	4/4	100	313 CM	750 CM	549	na	ng/kg ww
PCB-027	4/4	100	5.4 JM	38.3 M	20.2	na	ng/kg ww
PCB-028	4/4	100	C20	C20	nc	na	ng/kg ww
PCB-029	4/4	100	C26	C26	nc	na	ng/kg ww
PCB-030	4/4	100	C18	C18	nc	na	ng/kg ww
PCB-031	4/4	100	930 M	2,070 M	1,550	na	ng/kg ww
PCB-032	4/4	100	46 M	220 M	123	na	ng/kg ww
PCB-033	2/4	50	C21	C21	nc	0	ng/kg ww
PCB-034	4/4	100	1.49 JM	4.6 JM	2.93	na	ng/kg ww
PCB-035	1/4	25	1.33 JM	1.33 JM	0.748	0.81 – 1.26	ng/kg ww
PCB-036	0/4	0	nd	nd	0.459	0.58 – 1.17	ng/kg ww
PCB-037	4/4	100	1,330 M	1,770 M	1,510	na	ng/kg ww
PCB-038	0/4	0	nd	nd	0.422	0.53 – 1.08	ng/kg ww
PCB-039	4/4	100	7.3 JM	11.3 JM	9.02	na	ng/kg ww
PCB-040	4/4	100	391 CM	1,060 CM	725	na	ng/kg ww
PCB-041	4/4	100	C40	C40	nc	na	ng/kg ww
PCB-042	4/4	100	740 M	1,340 M	1,020	na	ng/kg ww
PCB-043	4/4	100	209 M	383 M	302	na	ng/kg ww
PCB-044	4/4	100	4,680 CM	6,800 CM	5,610	na	ng/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-045	4/4	100	39.2 CJM	191 CM	111	na	ng/kg ww
PCB-046	4/4	100	11.9 JM	52 M	30.4	na	ng/kg ww
PCB-047	4/4	100	C44	C44	nc	na	ng/kg ww
PCB-048	4/4	100	252 M	760 M	499	na	ng/kg ww
PCB-049	4/4	100	5,000 CM	7,300 CM	6,060	na	ng/kg ww
PCB-050	4/4	100	56 CM	263 CM	156	na	ng/kg ww
PCB-051	4/4	100	C45	C45	nc	na	ng/kg ww
PCB-052	4/4	100	10,600 M	14,800 M	12,600	na	ng/kg ww
PCB-053	4/4	100	C50	C50	nc	na	ng/kg ww
PCB-054	3/4	75	0.65 JM	1.60 M	0.773	0.37	ng/kg ww
PCB-055	0/4	0	nd	nd	3.61	1.04 – 13.0	ng/kg ww
PCB-056	4/4	100	1,280 M	1,990 M	1,620	na	ng/kg ww
PCB-057	4/4	100	20.8 M	44 M	33.9	na	ng/kg ww
PCB-058	4/4	100	31.6 M	46 M	40.0	na	ng/kg ww
PCB-059	4/4	100	243 CM	500 CM	375	na	ng/kg ww
PCB-060	4/4	100	2,300 M	2,690 M	2,530	na	ng/kg ww
PCB-061	4/4	100	8,600 CM	12,000 CM	10,200	na	ng/kg ww
PCB-062	4/4	100	C59	C59	nc	na	ng/kg ww
PCB-063	4/4	100	415 M	530 M	463	na	ng/kg ww
PCB-064	4/4	100	1,630 M	2,310 M	1,920	na	ng/kg ww
PCB-065	4/4	100	C44	C44	nc	na	ng/kg ww
PCB-066	4/4	100	9,800 M	11,500 M	10,600	na	ng/kg ww
PCB-067	4/4	100	68 M	137 M	105	na	ng/kg ww
PCB-068	4/4	100	54 M	95 M	74.1	na	ng/kg ww
PCB-069	4/4	100	C49	C49	nc	na	ng/kg ww
PCB-070	4/4	100	C61	C61	nc	na	ng/kg ww
PCB-071	4/4	100	C40	C40	nc	na	ng/kg ww
PCB-072	4/4	100	119 M	220 M	168	na	ng/kg ww
PCB-073	4/4	100	91 M	116 M	103	na	ng/kg ww
PCB-074	4/4	100	C61	C61	nc	na	ng/kg ww
PCB-075	4/4	100	C59	C59	nc	na	ng/kg ww
PCB-076	4/4	100	C61	C61	nc	na	ng/kg ww
PCB-077	4/4	100	740 M	1,010 M	877	na	ng/kg ww
PCB-078	0/4	0	nd	nd	3.63	1.06 – 13.1	ng/kg ww
PCB-079	4/4	100	174 M	222 M	195	na	ng/kg ww
PCB-080	0/4	0	nd	nd	3.36	0.97 – 12.1	ng/kg ww
PCB-081	4/4	100	39.3 JM	56 M	48.5	na	ng/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-082	4/4	100	760 M	1,140 M	921	na	ng/kg ww
PCB-083	4/4	100	12,400 CM	16,100 CM	14,000	na	ng/kg ww
PCB-084	4/4	100	860 M	1,670 M	1,260	na	ng/kg ww
PCB-085	4/4	100	3,290 CM	4,030 CM	3,540	na	ng/kg ww
PCB-086	4/4	100	9,000 CM	12,200 CM	10,300	na	ng/kg ww
PCB-087	4/4	100	C86	C86	nc	na	ng/kg ww
PCB-088	4/4	100	1,520 CM	2,220 CM	1,820	na	ng/kg ww
PCB-089	2/4	50	18.9 M	23.1 M	11.7	4.1 – 5.1	ng/kg ww
PCB-090	4/4	100	26,100 CM	35,700 CM	30,300	na	ng/kg ww
PCB-091	4/4	100	C88	C88	nc	na	ng/kg ww
PCB-092	4/4	100	4,800 M	6,400 M	5,520	na	ng/kg ww
PCB-093	4/4	100	8,000 CM	12,500 CM	9,950	na	ng/kg ww
PCB-094	4/4	100	9.9 JM	36.9 M	24.1	na	ng/kg ww
PCB-095	4/4	100	C93	C93	nc	na	ng/kg ww
PCB-096	4/4	100	5.1 M	22.5 M	13.5	na	ng/kg ww
PCB-097	4/4	100	C86	C86	nc	na	ng/kg ww
PCB-098	4/4	100	C93	C93	nc	na	ng/kg ww
PCB-099	4/4	100	C83	C83	nc	na	ng/kg ww
PCB-100	4/4	100	C93	C93	nc	na	ng/kg ww
PCB-101	4/4	100	C90	C90	nc	na	ng/kg ww
PCB-102	4/4	100	C93	C93	nc	na	ng/kg ww
PCB-103	4/4	100	193 M	288 M	234	na	ng/kg ww
PCB-104	4/4	100	1.41 JM	6.1 M	3.43	na	ng/kg ww
PCB-105	4/4	100	8,600 M	9,400 M	8,850	na	ng/kg ww
PCB-106	0/4	0	nd	nd	2.95	5.3 – 6.8	ng/kg ww
PCB-107	4/4	100	650 CM	1,010 CM	814	na	ng/kg ww
PCB-108	4/4	100	C86	C86	nc	na	ng/kg ww
PCB-109	4/4	100	1,220 M	1,710 M	1,440	na	ng/kg ww
PCB-110	4/4	100	6,600 CM	11,400 CM	8,850	na	ng/kg ww
PCB-111	4/4	100	10.9 JM	15.1 JM	12.6	na	ng/kg ww
PCB-112	0/4	0	nd	nd	1.46	2.5 – 3.5	ng/kg ww
PCB-113	4/4	100	C90	C90	nc	na	ng/kg ww
PCB-114	4/4	100	550 M	600 M	570	na	ng/kg ww
PCB-115	4/4	100	C110	C110	nc	na	ng/kg ww
PCB-116	4/4	100	C85	C85	nc	na	ng/kg ww
PCB-117	4/4	100	C85	C85	nc	na	ng/kg ww
PCB-118	4/4	100	23,000 M	27,100 M	24,500	na	ng/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-119	4/4	100	C86	C86	nc	na	ng/kg ww
PCB-120	4/4	100	36.5 M	64 M	49.3	na	ng/kg ww
PCB-121	0/4	0	nd	nd	1.51	2.6 – 3.6	ng/kg ww
PCB-122	4/4	100	184 M	233 M	209	na	ng/kg ww
PCB-123	4/4	100	430 M	490 M	459	na	ng/kg ww
PCB-124	4/4	100	C107	C107	nc	na	ng/kg ww
PCB-125	4/4	100	C86	C86	nc	na	ng/kg ww
PCB-126	4/4	100	38.2 M	60 M	49.6	na	ng/kg ww
PCB-127	4/4	100	56 M	78 M	67.4	na	ng/kg ww
PCB-128	4/4	100	4,500 CM	4,900 CM	4,640	na	ng/kg ww
PCB-129	4/4	100	35,700 CM	40,700 CM	38,000	na	ng/kg ww
PCB-130	4/4	100	1,720 M	2,020 M	1,830	na	ng/kg ww
PCB-131	4/4	100	167 M	242 M	198	na	ng/kg ww
PCB-132	4/4	100	3,210 M	4,300 M	3,690	na	ng/kg ww
PCB-133	4/4	100	670 M	800 M	744	na	ng/kg ww
PCB-134	4/4	100	740 CM	1,130 CM	908	na	ng/kg ww
PCB-135	4/4	100	8,200 CM	11,200 CM	9,620	na	ng/kg ww
PCB-136	4/4	100	730 M	1,390 M	1,040	na	ng/kg ww
PCB-137	4/4	100	1,170 M	1,350 M	1,250	na	ng/kg ww
PCB-138	4/4	100	C129	C129	nc	na	ng/kg ww
PCB-139	4/4	100	381 CM	580 CM	472	na	ng/kg ww
PCB-140	4/4	100	C139	C139	nc	na	ng/kg ww
PCB-141	4/4	100	4,500 M	5,000 M	4,750	na	ng/kg ww
PCB-142	0/4	0	nd	nd	5.09	5.5 – 15.8	ng/kg ww
PCB-143	4/4	100	C134	C134	nc	na	ng/kg ww
PCB-144	4/4	100	850 M	1,180 M	995	na	ng/kg ww
PCB-145	4/4	100	1.11 JM	3.7 JM	2.39	na	ng/kg ww
PCB-146	4/4	100	5,900 M	7,100 M	6,530	na	ng/kg ww
PCB-147	4/4	100	21,900 CM	27,900 CM	24,800	na	ng/kg ww
PCB-148	4/4	100	33.5 M	63 M	47.2	na	ng/kg ww
PCB-149	4/4	100	C147	C147	nc	na	ng/kg ww
PCB-150	4/4	100	43.7 M	62 M	52.8	na	ng/kg ww
PCB-151	4/4	100	C135	C135	nc	na	ng/kg ww
PCB-152	4/4	100	3.35 JM	9.2 JM	6.20	na	ng/kg ww
PCB-153	4/4	100	34,900 CM	41,200 CM	38,200	na	ng/kg ww
PCB-154	4/4	100	C135	C135	nc	na	ng/kg ww
PCB-155	4/4	100	4.5 JM	6.1 JM	5.33	na	ng/kg ww

Table E.6.3-19, cont.   Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-156	4/4	100	3,720 CM	4,180 CM	3,930	na	ng/kg ww
PCB-157	4/4	100	C156	C156	nc	na	ng/kg ww
PCB-158	4/4	100	2,000 M	2,890 M	2,360	na	ng/kg ww
PCB-159	4/4	100	152 M	170 M	162	na	ng/kg ww
PCB-160	4/4	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/4	0	nd	nd	3.41	3.7 – 10.6	ng/kg ww
PCB-162	4/4	100	78 M	94 M	84.9	na	ng/kg ww
PCB-163	4/4	100	C129	C129	nc	na	ng/kg ww
PCB-164	4/4	100	1,480 M	1,770 M	1,600	na	ng/kg ww
PCB-165	3/4	75	20.3 M	25.9 M	19.0	10.8	ng/kg ww
PCB-166	4/4	100	C128	C128	nc	na	ng/kg ww
PCB-167	4/4	100	1,520 M	1,690 M	1,600	na	ng/kg ww
PCB-168	4/4	100	C153	C153	nc	na	ng/kg ww
PCB-169	3/4	75	1.55 M	4.24 M	1.99	0.69	ng/kg ww
PCB-170	4/4	100	3,890 M	4,800 M	4,300	na	ng/kg ww
PCB-171	4/4	100	1,880 CM	2,080 CM	1,970	na	ng/kg ww
PCB-172	4/4	100	790 M	970 M	876	na	ng/kg ww
PCB-173	4/4	100	C171	C171	nc	na	ng/kg ww
PCB-174	4/4	100	2,820 M	3,510 M	3,190	na	ng/kg ww
PCB-175	4/4	100	202 M	259 M	227	na	ng/kg ww
PCB-176	4/4	100	630 M	780 M	699	na	ng/kg ww
PCB-177	4/4	100	4,300 M	4,800 M	4,570	na	ng/kg ww
PCB-178	4/4	100	1,900 M	2,220 M	2,070	na	ng/kg ww
PCB-179	4/4	100	2,100 M	2,510 M	2,260	na	ng/kg ww
PCB-180	4/4	100	14,100 CM	15,700 CM	15,100	na	ng/kg ww
PCB-181	4/4	100	44 M	49 M	46.1	na	ng/kg ww
PCB-182	4/4	100	51 M	77 M	61.1	na	ng/kg ww
PCB-183	4/4	100	4,700 CM	5,800 CM	5,220	na	ng/kg ww
PCB-184	4/4	100	5.0 JM	5.9 JM	5.37	na	ng/kg ww
PCB-185	4/4	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/4	0	nd	nd	0.164	0.213 – 0.44	ng/kg ww
PCB-187	4/4	100	11,500 M	13,500 M	12,600	na	ng/kg ww
PCB-188	4/4	100	18.7 M	21.1 M	19.9	na	ng/kg ww
PCB-189	4/4	100	197 M	249 M	220	na	ng/kg ww
PCB-190	4/4	100	1,440 M	1,660 M	1,540	na	ng/kg ww
PCB-191	4/4	100	268 M	327 M	294	na	ng/kg ww
PCB-192	0/4	0	nd	nd	0.207	0.27 – 0.56	ng/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-193	4/4	100	C180	C180	nc	na	ng/kg ww
PCB-194	4/4	100	1,060 M	1,400 M	1,220	na	ng/kg ww
PCB-195	4/4	100	420 M	530 M	468	na	ng/kg ww
PCB-196	4/4	100	650 M	720 M	675	na	ng/kg ww
PCB-197	4/4	100	201 CM	249 CM	223	na	ng/kg ww
PCB-198	4/4	100	1,300 CM	1,670 CM	1,470	na	ng/kg ww
PCB-199	4/4	100	C198	C198	nc	na	ng/kg ww
PCB-200	4/4	100	C197	C197	nc	na	ng/kg ww
PCB-201	4/4	100	281 M	305 M	295	na	ng/kg ww
PCB-202	4/4	100	690 M	780 M	742	na	ng/kg ww
PCB-203	4/4	100	1,150 M	1,220 M	1,190	na	ng/kg ww
PCB-204	4/4	100	0.466 JM	0.74 JM	0.599	na	ng/kg ww
PCB-205	4/4	100	60 M	74 M	66.9	na	ng/kg ww
PCB-206	4/4	100	153 M	240 M	196	na	ng/kg ww
PCB-207	4/4	100	21.2 M	30.1 M	25.5	na	ng/kg ww
PCB-208	4/4	100	51 M	106 M	78.9	na	ng/kg ww
PCB-209	4/4	100	19.0 M	49 M	34.0	na	ng/kg ww
Total PCB congeners	4/4	100	365,500 JM	449,200 JM	400,600	nc	ng/kg ww
Aroclor-1016	0/13	0	nd	nd	4.3	8 – 20	µg/kg ww
Aroclor-1221	0/13	0	nd	nd	7.8	15 – 20	µg/kg ww
Aroclor-1232	0/13	0	nd	nd	4.3	8 – 20	µg/kg ww
Aroclor-1242	0/13	0	nd	nd	4.3	8 – 20	µg/kg ww
Aroclor-1248	12/13	92	90 M	140 JM	110	20	µg/kg ww
Aroclor-1254	13/13	100	150 M	380 JM	300	na	µg/kg ww
Aroclor-1260	13/13	100	100 M	320 M	270	na	µg/kg ww
Total PCBs	13/13	100	250 M	840 JM	670	nc	µg/kg ww
PCB TEQ – Bird	4/4	100	46.5 JM	63.7 M	55.3	na	ng/kg ww
PCB TEQ – Fish	4/4	100	0.485 JM	0.622 M	0.561	na	ng/kg ww
PCB TEQ – Mammal	4/4	100	5.13 JM	7.3 M	6.31	na	ng/kg ww
Pesticides							
2,4'-DDD	9/12	75	3.2 JNM	6 JNM	3.9	1.2 – 1.9	µg/kg ww
2,4'-DDE	0/12	0	nd	nd	0.57	0.8 – 1.8	µg/kg ww
2,4'-DDT	12/12	100	21 JNM	33 JNM	28	na	µg/kg ww
4,4'-DDD	3/12	25	1.5 JNM	1.5 JNM	0.71	0.8 – 1.0	µg/kg ww
4,4'-DDE	12/12	100	7 JNM	9 JNM	8.1	na	µg/kg ww
4,4'-DDT	12/12	100	17 JNM	27 JNM	23	na	µg/kg ww
Total DDTs	12/12	100	48 JNM	71 JNM	61.8	nc	µg/kg ww

Table E.6.3-19, cont. Summary statistics for slender crab, whole body (calculated)

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Aldrin	0/12	0	nd	nd	0.38	0.8	µg/kg ww
Dieldrin	1/12	8	3.2 JNM	3.2 JNM	1.1	1.6 – 2.3	µg/kg ww
Total aldrin/dieldrin	1/12	8	3.2 JNM	3.2 JNM	1.1	nc	µg/kg ww
alpha-BHC	3/12	25	1.20 JNM	1.20 JNM	0.58	0.8	µg/kg ww
beta-BHC	0/12	0	nd	nd	0.64	0.8 – 3.2	µg/kg ww
gamma-BHC	0/12	0	nd	nd	0.38	0.8	µg/kg ww
delta-BHC	0/12	0	nd	nd	0.38	0.8	µg/kg ww
alpha-Chlordane	2/12	17	1.5 JNM	1.7 JNM	0.58	0.8	µg/kg ww
gamma-Chlordane	12/12	100	9 JNM	14 JNM	12	na	µg/kg ww
alpha-Endosulfan	3/12	25	1.3 JNM	2.1 JNM	0.74	0.8	µg/kg ww
beta-Endosulfan	0/12	0	nd	nd	0.47	0.8 – 1.1	µg/kg ww
Endosulfan sulfate	0/12	0	nd	nd	0.48	0.8 – 1.6	µg/kg ww
Endrin	0/12	0	nd	nd	0.53	0.8 – 2.0	µg/kg ww
Endrin aldehyde	5/12	42	1.9 JNM	3.3 JNM	1.5	0.8 – 1.8	µg/kg ww
Endrin ketone	0/12	0	nd	nd	0.47	0.9 – 1.0	µg/kg ww
Heptachlor	0/12	0	nd	nd	0.38	0.8	µg/kg ww
Heptachlor epoxide	9/12	75	2.5 JNM	3.7 JNM	2.4	1.0 – 1.3	µg/kg ww
Methoxychlor	3/12	25	5.8 JNM	90.0 JNM	9.9	0.8	µg/kg ww
Mirex	0/12	0	nd	nd	0.38	0.8	µg/kg ww
Toxaphene	0/12	0	nd	nd	43	70 – 110	µg/kg ww
Total chlordane	12/12	100	9 JNM	15 JNM	12	nc	µg/kg ww
Conventional parameters							
Total solids	13/13	100	12.8 M	17.7 M	16.2	na	% ww
Lipid	13/13	100	0.9 M	1.4 M	1.1	na	% ww

Note: Data from hepatopancreas composite samples were mathematically combined with data from composite samples of edible meat to form composite samples of edible meat plus hepatopancreas. Whole-body (i.e., edible meat plus hepatopancreas) crab concentrations were calculated assuming 69% (by weight) edible meat and 31% hepatopancreas, based on the relative weight of these tissues in a 16.6-cm Dungeness crab dissected by Windward in 2004 (unpublished data).

Table E.6.3-20. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	14/14	100	0.007 J	0.252	0.05	na	mg/kg ww
Arsenic	14/14	100	1.300 J	5.870 J	3.073	na	mg/kg ww
Arsenic (inorganic)	8/8	100	0.132	3.27	1.24	na	mg/kg ww
Cadmium	14/14	100	0.064	0.148	0.10	na	mg/kg ww
Chromium	14/14	100	0.36	1.32	0.67	na	mg/kg ww
Cobalt	14/14	100	0.1470	0.7110	0.3349	na	mg/kg ww
Copper	14/14	100	3.50	7.30	5.34	na	mg/kg ww
Lead	14/14	100	0.368	6.370	1.96	na	mg/kg ww
Mercury	14/14	100	0.009	0.022	0.02	na	mg/kg ww
Molybdenum	14/14	100	0.1750	0.3610	0.2473	na	mg/kg ww
Nickel	14/14	100	0.313	1.090	0.597	na	mg/kg ww
Selenium	14/14	100	0.215	0.373	0.279	na	mg/kg ww
Silver	14/14	100	0.012	0.093	0.035	na	mg/kg ww
Thallium	14/14	100	0.0009 J	0.0042	0.002	na	mg/kg ww
Vanadium	14/14	100	0.68	2.65	1.3	na	mg/kg ww
Zinc	14/14	100	16.1	32.3	23.7	na	mg/kg ww
Organometals							
Monobutyltin as ion	14/14	100	0.57 J	2.5	1.2	na	µg/kg ww
Dibutyltin as ion	13/14	93	1.8	10 J	3.9	3.9	µg/kg ww
Tributyltin as ion	14/14	100	150	660	320	na	µg/kg ww
Tetrabutyltin as ion	0/14	0	nd	nd	0.49	0.97 – 1.0	µg/kg ww
PAHs							
2-Chloronaphthalene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
2-Methylnaphthalene	14/14	100	0.41 J	1.9	0.86	na	µg/kg ww
Acenaphthene	14/14	100	0.82	7.6	2.1	na	µg/kg ww
Acenaphthylene	14/14	100	0.56	1.9	1.1	na	µg/kg ww
Anthracene	14/14	100	1.8	8.0	4.0	na	µg/kg ww
Benzo(a)anthracene	14/14	100	12	42	23	na	µg/kg ww
Benzo(a)pyrene	14/14	100	3.0	26	8.2	na	µg/kg ww
Benzo(b)fluoranthene	14/14	100	7.3	44	16	na	µg/kg ww
Benzo(g,h,i)perylene	14/14	100	3.3	32	9.8	na	µg/kg ww
Benzo(k)fluoranthene	14/14	100	6.2	38	13	na	µg/kg ww
Total benzofluoranthenes	14/14	100	13.5	82	29	nc	µg/kg ww
Chrysene	14/14	100	20	85	42	na	µg/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	14/14	100	0.63	5.1	1.4	na	µg/kg ww
Dibenzofuran	14/14	100	0.61	2.8	1.4	na	µg/kg ww
Fluoranthene	14/14	100	34	120	70	na	µg/kg ww
Fluorene	14/14	100	0.81	4.6	2.1	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	14/14	100	2.1	28	6.0	na	µg/kg ww
Naphthalene	1/14	7	0.80 J	0.80 J	0.46	0.57 – 1.6	µg/kg ww
Phenanthrene	14/14	100	4.0	26	11	na	µg/kg ww
Pyrene	14/14	100	34	130	64	na	µg/kg ww
Total HPAH	14/14	100	132	550	250	nc	µg/kg ww
Total LPAH	14/14	100	8.2	48	20	nc	µg/kg ww
Carcinogenic PAHs – Mammal	14/14	100	6.8	44	15	na	µg/kg ww
Total PAH	14/14	100	140	600	270	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	10/14	71	56 J	220 J	140	490 – 500	µg/kg ww
Butyl benzyl phthalate	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Diethyl phthalate	2/14	14	9.5 J	14 J	35	77 – 80	µg/kg ww
Dimethyl phthalate	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Di-n-butyl phthalate	4/14	29	19 J	34 J	23	39 – 40	µg/kg ww
Di-n-octyl phthalate	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
1,2-Dichlorobenzene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
1,3-Dichlorobenzene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
1,4-Dichlorobenzene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
2,4,5-Trichlorophenol	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2,4,6-Trichlorophenol	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2,4-Dichlorophenol	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2,4-Dimethylphenol	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2,4-Dinitrophenol	0/14	0	nd	nd	390	770 – 800	µg/kg ww
2,4-Dinitrotoluene	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2,6-Dinitrotoluene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
2-Chlorophenol	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2-Methylphenol	0/14	0	nd	nd	39	77 – 80	µg/kg ww
2-Nitroaniline	0/14	0	nd	nd	100	200	µg/kg ww
2-Nitrophenol	0/14	0	nd	nd	20	39 – 40	µg/kg ww
3,3'-Dichlorobenzidine	0/14	0	nd	nd	1,000	2,000	µg/kg ww
3-Nitroaniline	0/14	0	nd	nd	200	390 – 400	µg/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/14	0	nd	nd	200	390 – 400	µg/kg ww
4-Bromophenyl phenyl ether	0/14	0	nd	nd	20	39 – 40	µg/kg ww
4-Chloro-3-methylphenol	0/14	0	nd	nd	100	200	µg/kg ww
4-Chloroaniline	0/14	0	nd	nd	100	200	µg/kg ww
4-Chlorophenyl phenyl ether	0/14	0	nd	nd	20	39 – 40	µg/kg ww
4-Methylphenol	7/14	50	15 J	41 J	32	77 – 80	µg/kg ww
4-Nitroaniline	0/14	0	nd	nd	100	200	µg/kg ww
4-Nitrophenol	0/14	0	nd	nd	200	390 – 400	µg/kg ww
Aniline	0/14	0	nd	nd	390	770 – 800	µg/kg ww
Benzidine	0/14	0	nd	nd	2,500	5,000	µg/kg ww
Benzoic acid	14/14	100	340 J	640 J	470	na	µg/kg ww
Benzyl alcohol	0/14	0	nd	nd	20	39 – 40	µg/kg ww
bis(2-chloroethoxy)methane	0/14	0	nd	nd	20	39 – 40	µg/kg ww
bis(2-chloroethyl)ether	0/14	0	nd	nd	20	39 – 40	µg/kg ww
bis(2-chloroisopropyl)ether	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Carbazole	0/14	0	nd	nd	100	200	µg/kg ww
Hexachlorobenzene	9/14	64	0.38 JN	1.0 JN	0.66	1.0	µg/kg ww
Hexachlorobutadiene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Hexachlorocyclopentadiene	0/14	0	nd	nd	2,500	5,000	µg/kg ww
Hexachloroethane	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Isophorone	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Nitrobenzene	0/14	0	nd	nd	20	39 – 40	µg/kg ww
N-Nitrosodimethylamine	0/14	0	nd	nd	20	39 – 40	µg/kg ww
N-Nitroso-di-n-propylamine	0/14	0	nd	nd	20	39 – 40	µg/kg ww
N-Nitrosodiphenylamine	0/14	0	nd	nd	20	39 – 40	µg/kg ww
Pentachlorophenol	0/14	0	nd	nd	200	390 – 400	µg/kg ww
Phenol	12/14	86	18 J	50 J	30	97 – 100	µg/kg ww
Polychlorinated biphenyls							
PCB-001	6/8	75	1.23 J	74.8	11.1	0.971 – 1.00	ng/kg ww
PCB-002	2/8	25	1.07 J	13.3	1.97	0.293 – 0.847	ng/kg ww
PCB-003	2/8	25	2.58	29.0	4.29	0.711 – 1.24	ng/kg ww
PCB-004	8/8	100	21.8	1,300	196	na	ng/kg ww
PCB-005	8/8	100	0.558 J	12.6	2.37	na	ng/kg ww
PCB-006	8/8	100	16.6	2,470	350	na	ng/kg ww
PCB-007	8/8	100	2.01	76.8	12.4	na	ng/kg ww
PCB-008	8/8	100	42.1	1,790	280	na	ng/kg ww
PCB-009	8/8	100	2.97	125	19.8	na	ng/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-010	8/8	100	1.31 J	38.0	6.63	na	ng/kg ww
PCB-011	8/8	100	12.5	183	38.6	na	ng/kg ww
PCB-012	8/8	100	7.98 C	532 C	82.3	na	ng/kg ww
PCB-013	8/8	100	C12	C12	nc	na	ng/kg ww
PCB-014	4/8	50	0.0980 J	2.05	0.353	0.0570 – 0.105	ng/kg ww
PCB-015	8/8	100	53.8	653	142	na	ng/kg ww
PCB-016	8/8	100	78.3	685	179	na	ng/kg ww
PCB-017	8/8	100	135	4,090	742	na	ng/kg ww
PCB-018	8/8	100	237 C	10,700 C	1,810	na	ng/kg ww
PCB-019	8/8	100	34.6	1,980	324	na	ng/kg ww
PCB-020	8/8	100	630 C	8,680 C	1,960	na	ng/kg ww
PCB-021	8/8	100	164 C	1,110 C	334	na	ng/kg ww
PCB-022	8/8	100	164	981	313	na	ng/kg ww
PCB-023	8/8	100	0.371 J	2.63	0.779	na	ng/kg ww
PCB-024	8/8	100	3.29	41.5	9.67	na	ng/kg ww
PCB-025	8/8	100	99.7	14,300	2,240	na	ng/kg ww
PCB-026	8/8	100	220 C	38,300 C	5,960	na	ng/kg ww
PCB-027	8/8	100	49.5	7,670	1,200	na	ng/kg ww
PCB-028	8/8	100	C20	C20	nc	na	ng/kg ww
PCB-029	8/8	100	C26	C26	nc	na	ng/kg ww
PCB-030	8/8	100	C18	C18	nc	na	ng/kg ww
PCB-031	8/8	100	438	10,700	2,040	na	ng/kg ww
PCB-032	8/8	100	116	3,530	649	na	ng/kg ww
PCB-033	8/8	100	C21	C21	nc	na	ng/kg ww
PCB-034	8/8	100	2.82	166	28.4	na	ng/kg ww
PCB-035	8/8	100	8.07	49.6	15.7	na	ng/kg ww
PCB-036	8/8	100	0.646 J	63.7	10.1	na	ng/kg ww
PCB-037	8/8	100	147	640	246	na	ng/kg ww
PCB-038	8/8	100	0.839 J	61.2	11.9	na	ng/kg ww
PCB-039	8/8	100	4.15	64.1	15.2	na	ng/kg ww
PCB-040	8/8	100	455 C	14,700 C	2,710	na	ng/kg ww
PCB-041	8/8	100	C40	C40	nc	na	ng/kg ww
PCB-042	8/8	100	245	6,420	1,250	na	ng/kg ww
PCB-043	8/8	100	34.0	266	79.1	na	ng/kg ww
PCB-044	8/8	100	994 C	38,800 C	7,290	na	ng/kg ww
PCB-045	8/8	100	124 C	5,410 C	951	na	ng/kg ww
PCB-046	8/8	100	42.3	1,970	332	na	ng/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-047	8/8	100	C44	C44	nc	na	ng/kg ww
PCB-048	8/8	100	142	793	277	na	ng/kg ww
PCB-049	8/8	100	796 C	60,200 C	10,400	na	ng/kg ww
PCB-050	8/8	100	138 C	13,000 C	2,110	na	ng/kg ww
PCB-051	8/8	100	C45	C45	nc	na	ng/kg ww
PCB-052	8/8	100	1,680	110,000	19,400	na	ng/kg ww
PCB-053	8/8	100	C50	C50	nc	na	ng/kg ww
PCB-054	8/8	100	2.88	255	41.5	na	ng/kg ww
PCB-055	8/8	100	18.1	191	49.6	na	ng/kg ww
PCB-056	8/8	100	383	2,140	756	na	ng/kg ww
PCB-057	8/8	100	13.8	1,040	174	na	ng/kg ww
PCB-058	8/8	100	7.35	353	64.0	na	ng/kg ww
PCB-059	8/8	100	126 C	6,630 C	1,180	na	ng/kg ww
PCB-060	8/8	100	197	607	294	na	ng/kg ww
PCB-061	8/8	100	1,480 C	17,300 C	4,370	na	ng/kg ww
PCB-062	8/8	100	C59	C59	nc	na	ng/kg ww
PCB-063	8/8	100	36.5	716	149	na	ng/kg ww
PCB-064	8/8	100	346	5,180	1,150	na	ng/kg ww
PCB-065	8/8	100	C44	C44	nc	na	ng/kg ww
PCB-066	8/8	100	1,040	13,300	3,240	na	ng/kg ww
PCB-067	8/8	100	37.5	1,740	303	na	ng/kg ww
PCB-068	8/8	100	16.0	1,680	284	na	ng/kg ww
PCB-069	8/8	100	C49	C49	nc	na	ng/kg ww
PCB-070	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-071	8/8	100	C40	C40	nc	na	ng/kg ww
PCB-072	8/8	100	33.2	3,060	527	na	ng/kg ww
PCB-073	1/8	12	462	462	57.8	0.0251 – 0.0768	ng/kg ww
PCB-074	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-075	8/8	100	C59	C59	nc	na	ng/kg ww
PCB-076	8/8	100	C61	C61	nc	na	ng/kg ww
PCB-077	8/8	100	71.5	454	146	na	ng/kg ww
PCB-078	0/8	0	nd	nd	0.267	0.436 – 0.592	ng/kg ww
PCB-079	8/8	100	17.9 J	504	109	na	ng/kg ww
PCB-080	0/8	0	nd	nd	0.224	0.362 – 0.492	ng/kg ww
PCB-081	8/8	100	3.04	26.7 J	7.90	na	ng/kg ww
PCB-082	8/8	100	176	2,020	549	na	ng/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-083	8/8	100	1,390 C	37,200 C	7,840	na	ng/kg ww
PCB-084	8/8	100	361	14,000	2,720	na	ng/kg ww
PCB-085	8/8	100	313 C	5,100 C	1,230	na	ng/kg ww
PCB-086	8/8	100	1,050 C	22,500 C	5,120	na	ng/kg ww
PCB-087	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-088	8/8	100	286 C	13,100 C	2,450	na	ng/kg ww
PCB-089	8/8	100	15.5	182	47.0	na	ng/kg ww
PCB-090	8/8	100	2,240 C	46,300 C	11,000	na	ng/kg ww
PCB-091	8/8	100	C88	C88	nc	na	ng/kg ww
PCB-092	8/8	100	631	16,200	3,610	na	ng/kg ww
PCB-093	8/8	100	1,820 C	58,500 C	12,500	na	ng/kg ww
PCB-094	8/8	100	10.8	338	64.7	na	ng/kg ww
PCB-095	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-096	8/8	100	9.93	424	77.0	na	ng/kg ww
PCB-097	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-098	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-099	8/8	100	C83	C83	nc	na	ng/kg ww
PCB-100	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-101	8/8	100	C90	C90	nc	na	ng/kg ww
PCB-102	8/8	100	C93	C93	nc	na	ng/kg ww
PCB-103	8/8	100	36.8	1,350	258	na	ng/kg ww
PCB-104	8/8	100	0.516 J	35.9	6.20	na	ng/kg ww
PCB-105	8/8	100	478	6,680	1,700	na	ng/kg ww
PCB-106	0/8	0	nd	nd	0.186	0.246 – 0.446	ng/kg ww
PCB-107	8/8	100	64.3 C	925 C	241	na	ng/kg ww
PCB-108	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-109	8/8	100	116	2,810	603	na	ng/kg ww
PCB-110	8/8	100	1,980 C	59,800 C	12,500	na	ng/kg ww
PCB-111	8/8	100	3.36	81.3	17.6	na	ng/kg ww
PCB-112	0/8	0	nd	nd	0.127	0.0879 – 0.512	ng/kg ww
PCB-113	8/8	100	C90	C90	nc	na	ng/kg ww
PCB-114	8/8	100	29.8	359	95.2	na	ng/kg ww
PCB-115	8/8	100	C110	C110	nc	na	ng/kg ww
PCB-116	8/8	100	C85	C85	nc	na	ng/kg ww
PCB-117	8/8	100	C85	C85	nc	na	ng/kg ww
PCB-118	8/8	100	1,290	33,100	7,150	na	ng/kg ww
PCB-119	8/8	100	C86	C86	nc	na	ng/kg ww

Table E.6.3-20, cont.   Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-120	8/8	100	15.2	417	85.7	na	ng/kg ww
PCB-121	8/8	100	1.20 J	40.2	8.06	na	ng/kg ww
PCB-122	8/8	100	23.9	290	79.3	na	ng/kg ww
PCB-123	8/8	100	32.6	453	116	na	ng/kg ww
PCB-124	8/8	100	C107	C107	nc	na	ng/kg ww
PCB-125	8/8	100	C86	C86	nc	na	ng/kg ww
PCB-126	8/8	100	3.31	41.0	10.6	na	ng/kg ww
PCB-127	8/8	100	2.42	62.2	14.8	na	ng/kg ww
PCB-128	8/8	100	295 C	5,480 C	1,390	na	ng/kg ww
PCB-129	8/8	100	2,350 C	30,600 C	10,200	na	ng/kg ww
PCB-130	8/8	100	189	2,490	733	na	ng/kg ww
PCB-131	8/8	100	22.6	343	91.9	na	ng/kg ww
PCB-132	8/8	100	652	11,900	3,260	na	ng/kg ww
PCB-133	8/8	100	87.4	900	285	na	ng/kg ww
PCB-134	8/8	100	141 C	2,490 C	666	na	ng/kg ww
PCB-135	8/8	100	1,200 C	13,600 C	5,030	na	ng/kg ww
PCB-136	8/8	100	309	5,250	1,480	na	ng/kg ww
PCB-137	8/8	100	100	2,000	479	na	ng/kg ww
PCB-138	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-139	8/8	100	48.7 C	768 C	191	na	ng/kg ww
PCB-140	8/8	100	C139	C139	nc	na	ng/kg ww
PCB-141	8/8	100	257	4,210	1,320	na	ng/kg ww
PCB-142	0/8	0	nd	nd	0.243	0.383 – 0.674	ng/kg ww
PCB-143	8/8	100	C134	C134	nc	na	ng/kg ww
PCB-144	8/8	100	112	1,220	410	na	ng/kg ww
PCB-145	8/8	100	0.732 J	14.8	3.25	na	ng/kg ww
PCB-146	8/8	100	627	6,130	2,150	na	ng/kg ww
PCB-147	8/8	100	2,260 C	33,100 C	10,500	na	ng/kg ww
PCB-148	8/8	100	10.4	110	30.7	na	ng/kg ww
PCB-149	8/8	100	C147	C147	nc	na	ng/kg ww
PCB-150	8/8	100	5.78	118	25.6	na	ng/kg ww
PCB-151	8/8	100	C135	C135	nc	na	ng/kg ww
PCB-152	8/8	100	1.68 J	49.4	10.4	na	ng/kg ww
PCB-153	8/8	100	2,590 C	28,800 C	10,700	na	ng/kg ww
PCB-154	8/8	100	C135	C135	nc	na	ng/kg ww
PCB-155	8/8	100	0.475 J	3.98	1.16	na	ng/kg ww
PCB-156	8/8	100	163 C	2,980 C	777	na	ng/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Unit
PCB-157	8/8	100	C156	C156	nc	na	ng/kg ww
PCB-158	8/8	100	207	3,140	972	na	ng/kg ww
PCB-159	0/8	0	nd	nd	0.197	0.299 – 0.548	ng/kg ww
PCB-160	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/8	0	nd	nd	0.177	0.282 – 0.491	ng/kg ww
PCB-162	8/8	100	7.25	108	29.6	na	ng/kg ww
PCB-163	8/8	100	C129	C129	nc	na	ng/kg ww
PCB-164	8/8	100	214	2,700	895	na	ng/kg ww
PCB-165	8/8	100	2.31	41.2	10.0	na	ng/kg ww
PCB-166	8/8	100	C128	C128	nc	na	ng/kg ww
PCB-167	8/8	100	85.8	1,310	375	na	ng/kg ww
PCB-168	8/8	100	C153	C153	nc	na	ng/kg ww
PCB-169	0/8	0	nd	nd	3.10	1.21 – 20.0	ng/kg ww
PCB-170	8/8	100	232	5,390	1,310	na	ng/kg ww
PCB-171	8/8	100	184 C	2,890 C	761	na	ng/kg ww
PCB-172	8/8	100	43.1	996	235	na	ng/kg ww
PCB-173	8/8	100	C171	C171	nc	na	ng/kg ww
PCB-174	8/8	100	296	7,440	1,670	na	ng/kg ww
PCB-175	8/8	100	37.8	537	136	na	ng/kg ww
PCB-176	8/8	100	86.7	1,250	325	na	ng/kg ww
PCB-177	8/8	100	547	8,130	2,050	na	ng/kg ww
PCB-178	8/8	100	276	3,700	930	na	ng/kg ww
PCB-179	8/8	100	318	5,160	1,220	na	ng/kg ww
PCB-180	8/8	100	1,040 C	20,200 C	4,640	na	ng/kg ww
PCB-181	8/8	100	3.45	71.4	18.6	na	ng/kg ww
PCB-182	8/8	100	7.47	58.4	20.8	na	ng/kg ww
PCB-183	8/8	100	476 C	7,830 C	1,890	na	ng/kg ww
PCB-184	8/8	100	0.638 J	5.70	1.69	na	ng/kg ww
PCB-185	8/8	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/8	0	nd	nd	0.0516	0.0681 – 0.175	ng/kg ww
PCB-187	8/8	100	1,110	16,500	3,960	na	ng/kg ww
PCB-188	8/8	100	1.98	14.9	4.83	na	ng/kg ww
PCB-189	8/8	100	7.52	159	41.3	na	ng/kg ww
PCB-190	8/8	100	82.5	1,670	395	na	ng/kg ww
PCB-191	8/8	100	25.8	444	110	na	ng/kg ww
PCB-192	0/8	0	nd	nd	0.0652	0.0864 – 0.222	ng/kg ww
PCB-193	8/8	100	C180	C180	nc	na	ng/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-194	8/8	100	43.8	1,710	350	na	ng/kg ww
PCB-195	8/8	100	21.9	897	178	na	ng/kg ww
PCB-196	8/8	100	94.9	1,890	430	na	ng/kg ww
PCB-197	8/8	100	17.5 C	365 C	82.7	na	ng/kg ww
PCB-198	8/8	100	221 C	4,430 C	974	na	ng/kg ww
PCB-199	8/8	100	C198	C198	nc	na	ng/kg ww
PCB-200	8/8	100	C197	C197	nc	na	ng/kg ww
PCB-201	8/8	100	52.6	648	162	na	ng/kg ww
PCB-202	8/8	100	116	1,360	342	na	ng/kg ww
PCB-203	8/8	100	68.5	1,520	344	na	ng/kg ww
PCB-204	6/8	75	0.0540 J	0.302 J	0.112	0.0210 – 0.0490	ng/kg ww
PCB-205	8/8	100	3.88	107	23.4	na	ng/kg ww
PCB-206	8/8	100	10.3	252	69.1	na	ng/kg ww
PCB-207	8/8	100	1.15 J	36.0	9.08	na	ng/kg ww
PCB-208	8/8	100	2.88	48.5	15.2	na	ng/kg ww
PCB-209	8/8	100	2.23	18.3	5.60	na	ng/kg ww
Total PCB congeners	8/8	100	41,050 J	930,000 J	222,000	nc	ng/kg ww
Aroclor-1016	0/14	0	nd	nd	5.0	10	µg/kg ww
Aroclor-1221	0/14	0	nd	nd	10	20	µg/kg ww
Aroclor-1232	0/14	0	nd	nd	5.0	10	µg/kg ww
Aroclor-1242	0/14	0	nd	nd	5.0	10	µg/kg ww
Aroclor-1248	3/14	21	64 J	190 J	27	10	µg/kg ww
Aroclor-1254	14/14	100	24	390	84	na	µg/kg ww
Aroclor-1260	2/14	14	240	250	39	10	µg/kg ww
Total PCBs	14/14	100	24	580 J	140	nc	µg/kg ww
PCB TEQ – Bird	8/8	100	4.310	30.80 J	9.48	na	ng/kg ww
PCB TEQ – Fish	8/8	100	0.03670	0.4890 J	0.123	na	ng/kg ww
PCB TEQ – Mammal	8/8	100	0.440	5.65 J	1.48	na	ng/kg ww
Pesticides							
2,4'-DDD	9/14	64	2.0 JN	4.8 JN	2.3	1.0 – 4.4	µg/kg ww
2,4'-DDE	0/14	0	nd	nd	0.56	1.0 – 1.5	µg/kg ww
2,4'-DDT	12/14	86	2.1 JN	21 JN	4.5	3.2 – 3.5	µg/kg ww
4,4'-DDD	13/14	93	0.23 JN	1.4 JN	0.67	1.0	µg/kg ww
4,4'-DDE	9/14	64	0.70 JN	3.5 JN	1.1	1.0	µg/kg ww
4,4'-DDT	14/14	100	0.84 JN	12 JN	3.8	na	µg/kg ww
Total DDTs	14/14	100	3.8 JN	33 JN	12	nc	µg/kg ww

Table E.6.3-20, cont. Summary statistics for softshell clam, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Aldrin	3/14	21	0.77 JN	1.0 JN	0.59	1.0	µg/kg ww
Dieldrin	4/14	29	3.8 JN	5.0 JN	2.4	1.0 – 24	µg/kg ww
Total aldrin/dieldrin	6/14	43	0.95 JN	5.4 JN	2.5	nc	µg/kg ww
alpha-BHC	1/14	7	0.35 JN	0.35 JN	0.49	1.0	µg/kg ww
beta-BHC	10/14	71	0.41 JN	1.9 JN	0.90	1.0 – 1.1	µg/kg ww
gamma-BHC	3/14	21	0.51 JN	2.5 JN	0.68	1.0	µg/kg ww
delta-BHC	3/14	21	0.51 JN	2.2 JN	0.66	1.0	µg/kg ww
alpha-Chlordane	0/14	0	nd	nd	0.50	1.0	µg/kg ww
gamma-Chlordane	14/14	100	0.86 JN	9.3 JN	2.1	na	µg/kg ww
alpha-Endosulfan	2/14	14	0.53 JN	2.8 JN	0.81	1.0 – 4.3	µg/kg ww
beta-Endosulfan	4/14	29	3.8 JN	4.8 JN	1.7	1.0 – 1.2	µg/kg ww
Endosulfan sulfate	0/14	0	nd	nd	0.50	1.0	µg/kg ww
Endrin	11/14	79	0.10 JN	1.6 JN	0.41	1.0	µg/kg ww
Endrin aldehyde	2/14	14	0.42 JN	0.49 JN	0.59	1.0 – 3.6	µg/kg ww
Endrin ketone	0/14	0	nd	nd	0.61	1.0 – 2.6	µg/kg ww
Heptachlor	0/14	0	nd	nd	0.50	1.0	µg/kg ww
Heptachlor epoxide	5/14	36	1.1 JN	1.5 JN	0.81	1.0	µg/kg ww
Methoxychlor	1/14	7	0.63 JN	0.63 JN	0.51	1.0	µg/kg ww
Mirex	0/14	0	nd	nd	0.50	1.0	µg/kg ww
Toxaphene	0/14	0	nd	nd	41	50 – 250	µg/kg ww
Total chlordane	14/14	100	0.86 JN	9.3 JN	2.1	nc	µg/kg ww
Conventional parameters							
Total solids	14/14	100	12.8	17.3	14.9	na	% ww
Lipid	14/14	100	0.55	0.83	0.71	na	% ww

Table E.6.3-21. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	1/1	100	0.0036 J	0.0036 J	0.0036	na	mg/kg ww
Arsenic	1/1	100	0.899	0.899	0.899	na	mg/kg ww
Arsenic (inorganic)	0/1	0	nd	nd	0.002	0.003	mg/kg ww
Cadmium	0/1	0	nd	nd	0.0022	0.0043	mg/kg ww
Chromium	0/1	0	nd	nd	0.055	0.11	mg/kg ww
Cobalt	1/1	100	0.0086 J	0.0086 J	0.0086	na	mg/kg ww
Copper	1/1	100	0.272 J	0.272 J	0.272	na	mg/kg ww
Lead	1/1	100	0.006	0.006	0.006	na	mg/kg ww
Mercury	1/1	100	0.046	0.046	0.046	na	mg/kg ww
Molybdenum	1/1	100	0.0036 J	0.0036 J	0.0036	na	mg/kg ww
Nickel	1/1	100	0.034 J	0.034 J	0.034	na	mg/kg ww
Selenium	1/1	100	0.13	0.13	0.13	na	mg/kg ww
Silver	0/1	0	nd	nd	0.0022	0.0043	mg/kg ww
Thallium	0/1	0	nd	nd	0.0022	0.0043	mg/kg ww
Vanadium	0/1	0	nd	nd	0.1	0.2	mg/kg ww
Zinc	1/1	100	7.93	7.93	7.93	na	mg/kg ww
Organometals							
Monobutyltin as ion	0/1	0	nd	nd	0.75	1.5	µg/kg ww
Dibutyltin as ion	1/1	100	1.2 J	1.2 J	1.2	na	µg/kg ww
Tributyltin as ion	1/1	100	4.4	4.4	4.4	na	µg/kg ww
Tetrabutyltin as ion	0/1	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/1	0	nd	nd	290	570	µg/kg ww
2-Methylnaphthalene	1/1	100	2.0	2.0	2.0	na	µg/kg ww
Acenaphthene	1/1	100	5.0	5.0	5.0	na	µg/kg ww
Acenaphthylene	1/1	100	0.44 J	0.44 J	0.44	na	µg/kg ww
Anthracene	1/1	100	0.51 J	0.51 J	0.51	na	µg/kg ww
Benzo(a)anthracene	1/1	100	0.34 J	0.34 J	0.34	na	µg/kg ww
Benzo(a)pyrene	1/1	100	0.37 J	0.37 J	0.37	na	µg/kg ww
Benzo(b)fluoranthene	1/1	100	0.27 J	0.27 J	0.27	na	µg/kg ww
Benzo(g,h,i)perylene	1/1	100	0.36 J	0.36 J	0.36	na	µg/kg ww
Benzo(k)fluoranthene	1/1	100	0.31 J	0.31 J	0.31	na	µg/kg ww
Total benzofluoranthenes	1/1	100	0.58 J	0.58 J	0.58	na	µg/kg ww
Chrysene	1/1	100	0.53 J	0.53 J	0.53	na	µg/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	0/1	0	nd	nd	0.36	0.71	µg/kg ww
Dibenzofuran	1/1	100	2.3	2.3	2.3	na	µg/kg ww
Fluoranthene	1/1	100	1.8	1.8	1.8	na	µg/kg ww
Fluorene	1/1	100	1.6	1.6	1.6	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	1/1	100	0.32 J	0.32 J	0.32	na	µg/kg ww
Naphthalene	0/1	0	nd	nd	1.9	3.7	µg/kg ww
Phenanthrene	1/1	100	1.7	1.7	1.7	na	µg/kg ww
Pyrene	1/1	100	1.0	1.0	1.0	na	µg/kg ww
Total HPAH	1/1	100	5.3 J	5.3 J	5.3	nc	µg/kg ww
Total LPAH	1/1	100	9.3 J	9.3 J	9.3	nc	µg/kg ww
Carcinogenic PAHs – Mammal	1/1	100	0.64 J	0.64 J	0.64	na	µg/kg ww
Total PAH	1/1	100	14.6 J	14.6 J	15	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/1	0	nd	nd	34	67	µg/kg ww
Butyl benzyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Diethyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Dimethyl phthalate	0/1	0	nd	nd	290	570	µg/kg ww
Di-n-butyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Di-n-octyl phthalate	0/1	0	nd	nd	1,500	2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/1	0	nd	nd	290	570	µg/kg ww
1,2-Dichlorobenzene	0/1	0	nd	nd	290	570	µg/kg ww
1,3-Dichlorobenzene	0/1	0	nd	nd	290	570	µg/kg ww
1,4-Dichlorobenzene	0/1	0	nd	nd	290	570	µg/kg ww
2,4,5-Trichlorophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2,4,6-Trichlorophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2,4-Dichlorophenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2,4-Dimethylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2,4-Dinitrophenol	0/1	0	nd	nd	6,000	12,000	µg/kg ww
2,4-Dinitrotoluene	0/1	0	nd	nd	600	1,200	µg/kg ww
2,6-Dinitrotoluene	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Chlorophenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Methylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Nitroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2-Nitrophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/1	0	nd	nd	15,000	29,000	µg/kg ww
3-Nitroaniline	0/1	0	nd	nd	2,900	5,700	µg/kg ww

Table E.6.3-21, cont.   Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/1	0	nd	nd	2,900	5,700	µg/kg ww
4-Bromophenyl phenyl ether	0/1	0	nd	nd	290	570	µg/kg ww
4-Chloro-3-methylphenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Chloroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/1	0	nd	nd	290	570	µg/kg ww
4-Methylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
4-Nitroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Nitrophenol	0/1	0	nd	nd	2,900	5,700	µg/kg ww
Aniline	0/1	0	nd	nd	6,000	12,000	µg/kg ww
Benzoic acid	1/1	100	4,700 J	4,700 J	4,700	na	µg/kg ww
Benzyl alcohol	0/1	0	nd	nd	290	570	µg/kg ww
bis(2-chloroethoxy)methane	0/1	0	nd	nd	290	570	µg/kg ww
bis(2-chloroethyl)ether	0/1	0	nd	nd	290	570	µg/kg ww
bis(2-chloroisopropyl)ether	0/1	0	nd	nd	290	570	µg/kg ww
Carbazole	0/1	0	nd	nd	1,500	2,900	µg/kg ww
Hexachlorobenzene	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Hexachlorobutadiene	0/1	0	nd	nd	290	570	µg/kg ww
Hexachlorocyclopentadiene	0/1	0	nd	nd	36,000	72,000	µg/kg ww
Hexachloroethane	0/1	0	nd	nd	290	570	µg/kg ww
Isophorone	0/1	0	nd	nd	290	570	µg/kg ww
Nitrobenzene	0/1	0	nd	nd	290	570	µg/kg ww
N-Nitrosodimethylamine	0/1	0	nd	nd	1,500	2,900	µg/kg ww
N-Nitroso-di-n-propylamine	0/1	0	nd	nd	290	570	µg/kg ww
N-Nitrosodiphenylamine	0/1	0	nd	nd	290	570	µg/kg ww
Pentachlorophenol	0/1	0	nd	nd	1.7	3.3	µg/kg ww
Phenol	0/1	0	nd	nd	750	1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	1/1	100	4.34 J	4.34 J	4.34	na	ng/kg ww
PCB-002	1/1	100	0.424 J	0.424 J	0.424	na	ng/kg ww
PCB-003	1/1	100	0.738 J	0.738 J	0.738	na	ng/kg ww
PCB-004	1/1	100	154	154	154	na	ng/kg ww
PCB-005	1/1	100	2.93 J	2.93 J	2.93	na	ng/kg ww
PCB-006	1/1	100	99.9	99.9	99.9	na	ng/kg ww
PCB-007	1/1	100	7.63	7.63	7.63	na	ng/kg ww
PCB-008	1/1	100	151	151	151	na	ng/kg ww
PCB-009	1/1	100	17.5	17.5	17.5	na	ng/kg ww
PCB-010	1/1	100	8.21	8.21	8.21	na	ng/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-011	1/1	100	4.69 J	4.69 J	4.69	na	ng/kg ww
PCB-012	1/1	100	5.02 CJ	5.02 CJ	5.02	na	ng/kg ww
PCB-013	1/1	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/1	0	nd	nd	0.345	0.689	ng/kg ww
PCB-015	1/1	100	29.8	29.8	29.8	na	ng/kg ww
PCB-016	1/1	100	167	167	167	na	ng/kg ww
PCB-017	1/1	100	410	410	410	na	ng/kg ww
PCB-018	1/1	100	1,240 C	1,240 C	1,240	na	ng/kg ww
PCB-019	1/1	100	153	153	153	na	ng/kg ww
PCB-020	1/1	100	5,030 C	5,030 C	5,030	na	ng/kg ww
PCB-021	1/1	100	426 C	426 C	426	na	ng/kg ww
PCB-022	1/1	100	666	666	666	na	ng/kg ww
PCB-023	0/1	0	nd	nd	1.06	2.12	ng/kg ww
PCB-024	1/1	100	22.6	22.6	22.6	na	ng/kg ww
PCB-025	1/1	100	525	525	525	na	ng/kg ww
PCB-026	1/1	100	1,610 C	1,610 C	1,610	na	ng/kg ww
PCB-027	1/1	100	264	264	264	na	ng/kg ww
PCB-028	1/1	100	C20	C20	nc	na	ng/kg ww
PCB-029	1/1	100	C26	C26	nc	na	ng/kg ww
PCB-030	1/1	100	C18	C18	nc	na	ng/kg ww
PCB-031	1/1	100	3,190	3,190	3,190	na	ng/kg ww
PCB-032	1/1	100	700	700	700	na	ng/kg ww
PCB-033	1/1	100	C21	C21	nc	na	ng/kg ww
PCB-034	1/1	100	11.9	11.9	11.9	na	ng/kg ww
PCB-035	0/1	0	nd	nd	1.17	2.34	ng/kg ww
PCB-036	0/1	0	nd	nd	1.09	2.18	ng/kg ww
PCB-037	1/1	100	126	126	126	na	ng/kg ww
PCB-038	1/1	100	3.77 J	3.77 J	3.77	na	ng/kg ww
PCB-039	1/1	100	3.17 J	3.17 J	3.17	na	ng/kg ww
PCB-040	1/1	100	1,170 C	1,170 C	1,170	na	ng/kg ww
PCB-041	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-042	1/1	100	456	456	456	na	ng/kg ww
PCB-043	0/1	0	nd	nd	0.194	0.388	ng/kg ww
PCB-044	1/1	100	5,640 C	5,640 C	5,640	na	ng/kg ww
PCB-045	1/1	100	544 C	544 C	544	na	ng/kg ww
PCB-046	1/1	100	76.0	76.0	76.0	na	ng/kg ww
PCB-047	1/1	100	C44	C44	nc	na	ng/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-048	1/1	100	300	300	300	na	ng/kg ww
PCB-049	1/1	100	5,960 C	5,960 C	5,960	na	ng/kg ww
PCB-050	1/1	100	547 C	547 C	547	na	ng/kg ww
PCB-051	1/1	100	C45	C45	nc	na	ng/kg ww
PCB-052	1/1	100	13,000	13,000	13,000	na	ng/kg ww
PCB-053	1/1	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/1	100	15.6	15.6	15.6	na	ng/kg ww
PCB-055	0/1	0	nd	nd	1.35	2.70	ng/kg ww
PCB-056	1/1	100	945	945	945	na	ng/kg ww
PCB-057	1/1	100	49.8	49.8	49.8	na	ng/kg ww
PCB-058	1/1	100	28.8	28.8	28.8	na	ng/kg ww
PCB-059	1/1	100	772 C	772 C	772	na	ng/kg ww
PCB-060	1/1	100	1,520	1,520	1,520	na	ng/kg ww
PCB-061	1/1	100	10,900 C	10,900 C	10,900	na	ng/kg ww
PCB-062	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-063	1/1	100	208	208	208	na	ng/kg ww
PCB-064	1/1	100	2,640	2,640	2,640	na	ng/kg ww
PCB-065	1/1	100	C44	C44	nc	na	ng/kg ww
PCB-066	1/1	100	7,250	7,250	7,250	na	ng/kg ww
PCB-067	1/1	100	108	108	108	na	ng/kg ww
PCB-068	1/1	100	99.4	99.4	99.4	na	ng/kg ww
PCB-069	1/1	100	C49	C49	nc	na	ng/kg ww
PCB-070	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-071	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-072	1/1	100	203	203	203	na	ng/kg ww
PCB-073	0/1	0	nd	nd	0.132	0.264	ng/kg ww
PCB-074	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-075	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-076	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-077	1/1	100	221	221	221	na	ng/kg ww
PCB-078	0/1	0	nd	nd	1.39	2.78	ng/kg ww
PCB-079	1/1	100	59.7	59.7	59.7	na	ng/kg ww
PCB-080	0/1	0	nd	nd	1.30	2.60	ng/kg ww
PCB-081	1/1	100	16.2 J	16.2 J	16.2	na	ng/kg ww
PCB-082	1/1	100	274	274	274	na	ng/kg ww
PCB-083	1/1	100	12,900 C	12,900 C	12,900	na	ng/kg ww
PCB-084	1/1	100	1,100	1,100	1,100	na	ng/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-085	1/1	100	2,860 C	2,860 C	2,860	na	ng/kg ww
PCB-086	1/1	100	5,470 C	5,470 C	5,470	na	ng/kg ww
PCB-087	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-088	1/1	100	1,360 C	1,360 C	1,360	na	ng/kg ww
PCB-089	1/1	100	22.7	22.7	22.7	na	ng/kg ww
PCB-090	1/1	100	13,800 C	13,800 C	13,800	na	ng/kg ww
PCB-091	1/1	100	C88	C88	nc	na	ng/kg ww
PCB-092	1/1	100	3,810	3,810	3,810	na	ng/kg ww
PCB-093	1/1	100	7,940 C	7,940 C	7,940	na	ng/kg ww
PCB-094	1/1	100	20.1	20.1	20.1	na	ng/kg ww
PCB-095	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-096	1/1	100	55.0	55.0	55.0	na	ng/kg ww
PCB-097	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-098	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-099	1/1	100	C83	C83	nc	na	ng/kg ww
PCB-100	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-101	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-102	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-103	1/1	100	272	272	272	na	ng/kg ww
PCB-104	1/1	100	2.90 J	2.90 J	2.90	na	ng/kg ww
PCB-105	1/1	100	4,650	4,650	4,650	na	ng/kg ww
PCB-106	0/1	0	nd	nd	1.82	3.63	ng/kg ww
PCB-107	1/1	100	380 C	380 C	380	na	ng/kg ww
PCB-108	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-109	1/1	100	987	987	987	na	ng/kg ww
PCB-110	1/1	100	13,000 C	13,000 C	13,000	na	ng/kg ww
PCB-111	1/1	100	19.3	19.3	19.3	na	ng/kg ww
PCB-112	0/1	0	nd	nd	1.67	3.34	ng/kg ww
PCB-113	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-114	1/1	100	370	370	370	na	ng/kg ww
PCB-115	1/1	100	C110	C110	nc	na	ng/kg ww
PCB-116	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-117	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-118	1/1	100	15,300	15,300	15,300	na	ng/kg ww
PCB-119	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-120	1/1	100	104	104	104	na	ng/kg ww
PCB-121	1/1	100	9.08	9.08	9.08	na	ng/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-122	0/1	0	nd	nd	1.99	3.98	ng/kg ww
PCB-123	1/1	100	240	240	240	na	ng/kg ww
PCB-124	1/1	100	C107	C107	nc	na	ng/kg ww
PCB-125	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-126	1/1	100	21.4	21.4	21.4	na	ng/kg ww
PCB-127	1/1	100	39.8	39.8	39.8	na	ng/kg ww
PCB-128	1/1	100	2,740 C	2,740 C	2,740	na	ng/kg ww
PCB-129	1/1	100	25,500 C	25,500 C	25,500	na	ng/kg ww
PCB-130	1/1	100	732	732	732	na	ng/kg ww
PCB-131	1/1	100	84.4	84.4	84.4	na	ng/kg ww
PCB-132	1/1	100	2,250	2,250	2,250	na	ng/kg ww
PCB-133	1/1	100	523	523	523	na	ng/kg ww
PCB-134	1/1	100	519 C	519 C	519	na	ng/kg ww
PCB-135	1/1	100	7,300 C	7,300 C	7,300	na	ng/kg ww
PCB-136	1/1	100	1,490	1,490	1,490	na	ng/kg ww
PCB-137	1/1	100	1,150	1,150	1,150	na	ng/kg ww
PCB-138	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-139	1/1	100	497 C	497 C	497	na	ng/kg ww
PCB-140	1/1	100	C139	C139	nc	na	ng/kg ww
PCB-141	1/1	100	2,780	2,780	2,780	na	ng/kg ww
PCB-142	0/1	0	nd	nd	2.75	5.49	ng/kg ww
PCB-143	1/1	100	C134	C134	nc	na	ng/kg ww
PCB-144	1/1	100	943	943	943	na	ng/kg ww
PCB-145	1/1	100	5.24	5.24	5.24	na	ng/kg ww
PCB-146	1/1	100	4,430	4,430	4,430	na	ng/kg ww
PCB-147	1/1	100	10,000 C	10,000 C	10,000	na	ng/kg ww
PCB-148	1/1	100	56.1	56.1	56.1	na	ng/kg ww
PCB-149	1/1	100	C147	C147	nc	na	ng/kg ww
PCB-150	1/1	100	36.2	36.2	36.2	na	ng/kg ww
PCB-151	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-152	1/1	100	6.56	6.56	6.56	na	ng/kg ww
PCB-153	1/1	100	31,200 C	31,200 C	31,200	na	ng/kg ww
PCB-154	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-155	1/1	100	3.03 J	3.03 J	3.03	na	ng/kg ww
PCB-156	1/1	100	2,000 C	2,000 C	2,000	na	ng/kg ww
PCB-157	1/1	100	C156	C156	nc	na	ng/kg ww
PCB-158	1/1	100	2,430	2,430	2,430	na	ng/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-159	1/1	100	67.0	67.0	67.0	na	ng/kg ww
PCB-160	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/1	0	nd	nd	2.00	3.99	ng/kg ww
PCB-162	1/1	100	64.6	64.6	64.6	na	ng/kg ww
PCB-163	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-164	1/1	100	744	744	744	na	ng/kg ww
PCB-165	1/1	100	16.7	16.7	16.7	na	ng/kg ww
PCB-166	1/1	100	C128	C128	nc	na	ng/kg ww
PCB-167	1/1	100	859	859	859	na	ng/kg ww
PCB-168	1/1	100	C153	C153	nc	na	ng/kg ww
PCB-169	1/1	100	0.916	0.916	0.916	na	ng/kg ww
PCB-170	1/1	100	3,900	3,900	3,900	na	ng/kg ww
PCB-171	1/1	100	1,550 C	1,550 C	1,550	na	ng/kg ww
PCB-172	1/1	100	667	667	667	na	ng/kg ww
PCB-173	1/1	100	C171	C171	nc	na	ng/kg ww
PCB-174	1/1	100	1,420	1,420	1,420	na	ng/kg ww
PCB-175	1/1	100	209	209	209	na	ng/kg ww
PCB-176	1/1	100	327	327	327	na	ng/kg ww
PCB-177	1/1	100	1,630	1,630	1,630	na	ng/kg ww
PCB-178	1/1	100	1,320	1,320	1,320	na	ng/kg ww
PCB-179	1/1	100	1,550	1,550	1,550	na	ng/kg ww
PCB-180	1/1	100	11,500 C	11,500 C	11,500	na	ng/kg ww
PCB-181	1/1	100	37.2	37.2	37.2	na	ng/kg ww
PCB-182	1/1	100	62.0	62.0	62.0	na	ng/kg ww
PCB-183	1/1	100	4,720 C	4,720 C	4,720	na	ng/kg ww
PCB-184	1/1	100	5.11	5.11	5.11	na	ng/kg ww
PCB-185	1/1	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/1	0	nd	nd	0.143	0.285	ng/kg ww
PCB-187	1/1	100	7,190	7,190	7,190	na	ng/kg ww
PCB-188	1/1	100	13.2	13.2	13.2	na	ng/kg ww
PCB-189	1/1	100	115	115	115	na	ng/kg ww
PCB-190	1/1	100	935	935	935	na	ng/kg ww
PCB-191	1/1	100	224	224	224	na	ng/kg ww
PCB-192	0/1	0	nd	nd	0.160	0.320	ng/kg ww
PCB-193	1/1	100	C180	C180	nc	na	ng/kg ww
PCB-194	1/1	100	1,100	1,100	1,100	na	ng/kg ww
PCB-195	1/1	100	512	512	512	na	ng/kg ww

Table E.6.3-21, cont. Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-196	1/1	100	860	860	860	na	ng/kg ww
PCB-197	1/1	100	171 C	171 C	171	na	ng/kg ww
PCB-198	1/1	100	1,430 C	1,430 C	1,430	na	ng/kg ww
PCB-199	1/1	100	C198	C198	nc	na	ng/kg ww
PCB-200	1/1	100	C197	C197	nc	na	ng/kg ww
PCB-201	1/1	100	243	243	243	na	ng/kg ww
PCB-202	1/1	100	450	450	450	na	ng/kg ww
PCB-203	1/1	100	1,250	1,250	1,250	na	ng/kg ww
PCB-204	1/1	100	0.613 J	0.613 J	0.613	na	ng/kg ww
PCB-205	1/1	100	65.7	65.7	65.7	na	ng/kg ww
PCB-206	1/1	100	339	339	339	na	ng/kg ww
PCB-207	1/1	100	49.3	49.3	49.3	na	ng/kg ww
PCB-208	1/1	100	86.4	86.4	86.4	na	ng/kg ww
PCB-209	1/1	100	53.3	53.3	53.3	na	ng/kg ww
Total PCB congeners	1/1	100	295,200 J	295,200 J	295,000	nc	ng/kg ww
Aroclor-1016	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1221	0/1	0	nd	nd	15	29	µg/kg ww
Aroclor-1232	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1242	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1248	1/1	100	98	98	98	na	µg/kg ww
Aroclor-1254	1/1	100	170	170	170	na	µg/kg ww
Aroclor-1260	1/1	100	180	180	180	na	µg/kg ww
Total PCBs	1/1	100	450	450	450	nc	µg/kg ww
PCB TEQ – Bird	1/1	100	15.70 J	15.70 J	15.7	na	ng/kg ww
PCB TEQ – Fish	1/1	100	0.2550 J	0.2550 J	0.255	na	ng/kg ww
PCB TEQ – Mammal	1/1	100	2.90 J	2.90 J	2.90	na	ng/kg ww
Pesticides							
2,4'-DDD	0/1	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDE	0/1	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDT	1/1	100	31 JN	31 JN	31	na	µg/kg ww
4,4'-DDD	1/1	100	3.0 JN	3.0 JN	3.0	na	µg/kg ww
4,4'-DDE	1/1	100	5.9 JN	5.9 JN	5.9	na	µg/kg ww
4,4'-DDT	1/1	100	18 JN	18 JN	18	na	µg/kg ww
Total DDTs	1/1	100	58 JN	58 JN	58	nc	µg/kg ww
Aldrin	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Dieldrin	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Total aldrin/dieldrin	0/1	0	nd	nd	3.6	nc	µg/kg ww

Table E.6.3-21, cont.   Summary statistics for starry flounder, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
alpha-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
beta-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
gamma-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
delta-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
alpha-Chlordane	0/1	0	nd	nd	3.6	7.2	µg/kg ww
gamma-Chlordane	1/1	100	6.2 JN	6.2 JN	6.2	na	µg/kg ww
alpha-Endosulfan	0/1	0	nd	nd	3.6	7.2	µg/kg ww
beta-Endosulfan	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endosulfan sulfate	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endrin	1/1	100	1.0 JN	1.0 JN	1.0	na	µg/kg ww
Endrin aldehyde	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endrin ketone	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor epoxide	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Methoxychlor	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Mirex	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Toxaphene	0/1	0	nd	nd	180	360	µg/kg ww
Total chlordane	1/1	100	6.2 JN	6.2 JN	6.2	nc	µg/kg ww
Conventional parameters							
Total solids	1/1	100	21.8	21.8	21.8	na	% ww
Lipid	1/1	100	2.6	2.6	2.6	na	% ww

Table E.6.3-22. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Metals and trace elements							
Antimony	3/3	100	0.0028 J	0.0070 J	0.0044	na	mg/kg ww
Arsenic	3/3	100	0.793	0.973	0.887	na	mg/kg ww
Arsenic (inorganic)	1/1	100	0.090	0.090	0.090	na	mg/kg ww
Cadmium	3/3	100	0.0044 J	0.0079	0.0062	na	mg/kg ww
Chromium	3/3	100	0.14	3.74	1.5	na	mg/kg ww
Cobalt	3/3	100	0.0496	0.2290 J	0.141	na	mg/kg ww
Copper	3/3	100	0.550 J	2.770	1.35	na	mg/kg ww
Lead	3/3	100	0.035	0.403	0.17	na	mg/kg ww
Mercury	3/3	100	0.021	0.025	0.023	na	mg/kg ww
Molybdenum	3/3	100	0.0143	0.4100	0.157	na	mg/kg ww
Nickel	3/3	100	0.202	2.060	0.864	na	mg/kg ww
Selenium	3/3	100	0.13	0.16	0.14	na	mg/kg ww
Silver	3/3	100	0.0013 J	0.0076 J	0.0040	na	mg/kg ww
Thallium	1/3	33	0.0006 J	0.0006 J	0.002	0.0044 – 0.0045	mg/kg ww
Vanadium	3/3	100	0.2 J	0.5	0.3	na	mg/kg ww
Zinc	3/3	100	15.1	16.1	15.6	na	mg/kg ww
Organometals							
Monobutyltin as ion	3/3	100	0.64 J	1.9 J	1.2	na	µg/kg ww
Dibutyltin as ion	3/3	100	2.6	5.8	3.8	na	µg/kg ww
Tributyltin as ion	3/3	100	11	15	12	na	µg/kg ww
Tetrabutyltin as ion	0/3	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
2-Methylnaphthalene	3/3	100	1.7	2.8	2.2	na	µg/kg ww
Acenaphthene	3/3	100	4.6	9.0	6.4	na	µg/kg ww
Acenaphthylene	3/3	100	0.38 J	0.56 J	0.47	na	µg/kg ww
Anthracene	2/3	67	0.59 J	0.77	0.56	0.66	µg/kg ww
Benzo(a)anthracene	3/3	100	0.26 J	0.32 J	0.29	na	µg/kg ww
Benzo(a)pyrene	3/3	100	0.30 J	0.36 J	0.34	na	µg/kg ww
Benzo(b)fluoranthene	3/3	100	0.30 J	0.57	0.44	na	µg/kg ww
Benzo(g,h,i)perylene	3/3	100	0.25 J	0.36 J	0.32	na	µg/kg ww
Benzo(k)fluoranthene	3/3	100	0.30 J	0.57	0.41	na	µg/kg ww
Total benzofluoranthenes	3/3	100	0.60 J	1.14	0.85	nc	µg/kg ww
Chrysene	3/3	100	0.50 J	0.88	0.70	na	µg/kg ww

Table E.6.3-22, cont.   Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Dibenzo(a,h)anthracene	1/3	33	0.14 J	0.14 J	0.25	0.50 – 0.72	µg/kg ww
Dibenzofuran	3/3	100	2.2	4.6	3.2	na	µg/kg ww
Fluoranthene	3/3	100	2.3	2.4	2.4	na	µg/kg ww
Fluorene	3/3	100	1.6	3.8	2.5	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	2/3	67	0.20 J	0.35 J	0.30	0.72	µg/kg ww
Naphthalene	2/3	67	2.4	4.1	2.7	3.1	µg/kg ww
Phenanthrene	3/3	100	1.9	3.8	2.7	na	µg/kg ww
Pyrene	3/3	100	1.1	1.5	1.3	na	µg/kg ww
Total HPAH	3/3	100	5.8 J	7.3 J	6.4	nc	µg/kg ww
Total LPAH	3/3	100	11.0 J	22.0 J	15	nc	µg/kg ww
Carcinogenic PAHs – Mammal	3/3	100	0.47 J	0.66 J	0.59	na	µg/kg ww
Total PAH	3/3	100	17.3 J	27.8 J	21	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/3	0	nd	nd	33	66 – 67	µg/kg ww
Butyl benzyl phthalate	0/3	0	nd	nd	600	1,200	µg/kg ww
Diethyl phthalate	0/3	0	nd	nd	600	1,200	µg/kg ww
Dimethyl phthalate	0/3	0	nd	nd	290	570 – 580	µg/kg ww
Di-n-butyl phthalate	0/3	0	nd	nd	600	1,200	µg/kg ww
Di-n-octyl phthalate	0/3	0	nd	nd	1,500	2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
1,2-Dichlorobenzene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
1,3-Dichlorobenzene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
1,4-Dichlorobenzene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
2,4,5-Trichlorophenol	0/3	0	nd	nd	1,500	2,900	µg/kg ww
2,4,6-Trichlorophenol	0/3	0	nd	nd	1,500	2,900	µg/kg ww
2,4-Dichlorophenol	0/3	0	nd	nd	600	1,200	µg/kg ww
2,4-Dimethylphenol	0/3	0	nd	nd	600	1,200	µg/kg ww
2,4-Dinitrophenol	0/3	0	nd	nd	6,000	12,000	µg/kg ww
2,4-Dinitrotoluene	0/3	0	nd	nd	600	1,200	µg/kg ww
2,6-Dinitrotoluene	0/3	0	nd	nd	600	1,200	µg/kg ww
2-Chlorophenol	0/3	0	nd	nd	600	1,200	µg/kg ww
2-Methylphenol	0/3	0	nd	nd	600	1,200	µg/kg ww
2-Nitroaniline	0/3	0	nd	nd	1,500	2,900	µg/kg ww
2-Nitrophenol	0/3	0	nd	nd	1,500	2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/3	0	nd	nd	15,000	29,000	µg/kg ww
3-Nitroaniline	0/3	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww

Table E.6.3-22, cont. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
4,6-Dinitro-o-cresol	0/3	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/3	0	nd	nd	290	570 – 580	µg/kg ww
4-Chloro-3-methylphenol	0/3	0	nd	nd	1,500	2,900	µg/kg ww
4-Chloroaniline	0/3	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/3	0	nd	nd	290	570 – 580	µg/kg ww
4-Methylphenol	0/3	0	nd	nd	600	1,200	µg/kg ww
4-Nitroaniline	0/3	0	nd	nd	1,500	2,900	µg/kg ww
4-Nitrophenol	0/3	0	nd	nd	2,900	5,700 – 5,800	µg/kg ww
Aniline	0/3	0	nd	nd	6,000	12,000	µg/kg ww
Benzoic acid	3/3	100	5,000 J	5,800 J	5,500	na	µg/kg ww
Benzyl alcohol	0/3	0	nd	nd	290	570 – 580	µg/kg ww
bis(2-chloroethoxy)methane	0/3	0	nd	nd	290	570 – 580	µg/kg ww
bis(2-chloroethyl)ether	0/3	0	nd	nd	290	570 – 580	µg/kg ww
bis(2-chloroisopropyl)ether	0/3	0	nd	nd	290	570 – 580	µg/kg ww
Carbazole	0/3	0	nd	nd	1,500	2,900	µg/kg ww
Hexachlorobenzene	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Hexachlorobutadiene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
Hexachlorocyclopentadiene	0/3	0	nd	nd	36,000	72,000	µg/kg ww
Hexachloroethane	0/3	0	nd	nd	290	570 – 580	µg/kg ww
Isophorone	0/3	0	nd	nd	290	570 – 580	µg/kg ww
Nitrobenzene	0/3	0	nd	nd	290	570 – 580	µg/kg ww
N-Nitrosodimethylamine	0/3	0	nd	nd	1,500	2,900	µg/kg ww
N-Nitroso-di-n-propylamine	0/3	0	nd	nd	290	570 – 580	µg/kg ww
N-Nitrosodiphenylamine	0/3	0	nd	nd	290	570 – 580	µg/kg ww
Pentachlorophenol	1/3	33	1.3 J	1.3 J	2.1	3.3 – 6.7	µg/kg ww
Phenol	0/3	0	nd	nd	750	1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	1/1	100	5.92	5.92	5.92	na	ng/kg ww
PCB-002	1/1	100	0.736 J	0.736 J	0.736	na	ng/kg ww
PCB-003	1/1	100	1.19 J	1.19 J	1.19	na	ng/kg ww
PCB-004	1/1	100	176	176	176	na	ng/kg ww
PCB-005	1/1	100	5.42	5.42	5.42	na	ng/kg ww
PCB-006	1/1	100	165	165	165	na	ng/kg ww
PCB-007	1/1	100	10.5	10.5	10.5	na	ng/kg ww
PCB-008	1/1	100	229	229	229	na	ng/kg ww
PCB-009	1/1	100	22.0	22.0	22.0	na	ng/kg ww
PCB-010	1/1	100	9.38	9.38	9.38	na	ng/kg ww

Table E.6.3-22, cont.   Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-011	1/1	100	5.48	5.48	5.48	na	ng/kg ww
PCB-012	1/1	100	8.57 CJ	8.57 CJ	8.57	na	ng/kg ww
PCB-013	1/1	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/1	0	nd	nd	0.369	0.737	ng/kg ww
PCB-015	1/1	100	30.8	30.8	30.8	na	ng/kg ww
PCB-016	1/1	100	206	206	206	na	ng/kg ww
PCB-017	1/1	100	667	667	667	na	ng/kg ww
PCB-018	1/1	100	1,710 C	1,710 C	1,710	na	ng/kg ww
PCB-019	1/1	100	199	199	199	na	ng/kg ww
PCB-020	1/1	100	5,470 C	5,470 C	5,470	na	ng/kg ww
PCB-021	1/1	100	586 C	586 C	586	na	ng/kg ww
PCB-022	1/1	100	889	889	889	na	ng/kg ww
PCB-023	0/1	0	nd	nd	1.62	3.24	ng/kg ww
PCB-024	1/1	100	28.1	28.1	28.1	na	ng/kg ww
PCB-025	1/1	100	648	648	648	na	ng/kg ww
PCB-026	1/1	100	1,920 C	1,920 C	1,920	na	ng/kg ww
PCB-027	1/1	100	304	304	304	na	ng/kg ww
PCB-028	1/1	100	C20	C20	nc	na	ng/kg ww
PCB-029	1/1	100	C26	C26	nc	na	ng/kg ww
PCB-030	1/1	100	C18	C18	nc	na	ng/kg ww
PCB-031	1/1	100	3,470	3,470	3,470	na	ng/kg ww
PCB-032	1/1	100	941	941	941	na	ng/kg ww
PCB-033	1/1	100	C21	C21	nc	na	ng/kg ww
PCB-034	1/1	100	18.4	18.4	18.4	na	ng/kg ww
PCB-035	0/1	0	nd	nd	1.79	3.58	ng/kg ww
PCB-036	0/1	0	nd	nd	1.66	3.32	ng/kg ww
PCB-037	1/1	100	129	129	129	na	ng/kg ww
PCB-038	1/1	100	4.04 J	4.04 J	4.04	na	ng/kg ww
PCB-039	1/1	100	7.88	7.88	7.88	na	ng/kg ww
PCB-040	1/1	100	1,620 C	1,620 C	1,620	na	ng/kg ww
PCB-041	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-042	1/1	100	677	677	677	na	ng/kg ww
PCB-043	1/1	100	261	261	261	na	ng/kg ww
PCB-044	1/1	100	6,550 C	6,550 C	6,550	na	ng/kg ww
PCB-045	1/1	100	718 C	718 C	718	na	ng/kg ww
PCB-046	1/1	100	91.5	91.5	91.5	na	ng/kg ww
PCB-047	1/1	100	C44	C44	nc	na	ng/kg ww

Table E.6.3-22, cont. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-048	1/1	100	478	478	478	na	ng/kg ww
PCB-049	1/1	100	7,850 C	7,850 C	7,850	na	ng/kg ww
PCB-050	1/1	100	643 C	643 C	643	na	ng/kg ww
PCB-051	1/1	100	C45	C45	nc	na	ng/kg ww
PCB-052	1/1	100	17,000	17,000	17,000	na	ng/kg ww
PCB-053	1/1	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/1	100	17.3	17.3	17.3	na	ng/kg ww
PCB-055	0/1	0	nd	nd	2.89	5.78	ng/kg ww
PCB-056	1/1	100	1,170	1,170	1,170	na	ng/kg ww
PCB-057	1/1	100	70.7	70.7	70.7	na	ng/kg ww
PCB-058	1/1	100	37.3	37.3	37.3	na	ng/kg ww
PCB-059	1/1	100	944 C	944 C	944	na	ng/kg ww
PCB-060	1/1	100	1,690	1,690	1,690	na	ng/kg ww
PCB-061	1/1	100	12,800 C	12,800 C	12,800	na	ng/kg ww
PCB-062	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-063	1/1	100	302	302	302	na	ng/kg ww
PCB-064	1/1	100	3,140	3,140	3,140	na	ng/kg ww
PCB-065	1/1	100	C44	C44	nc	na	ng/kg ww
PCB-066	1/1	100	8,290	8,290	8,290	na	ng/kg ww
PCB-067	1/1	100	160	160	160	na	ng/kg ww
PCB-068	1/1	100	116	116	116	na	ng/kg ww
PCB-069	1/1	100	C49	C49	nc	na	ng/kg ww
PCB-070	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-071	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-072	1/1	100	285	285	285	na	ng/kg ww
PCB-073	0/1	0	nd	nd	0.137	0.273	ng/kg ww
PCB-074	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-075	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-076	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-077	1/1	100	242	242	242	na	ng/kg ww
PCB-078	0/1	0	nd	nd	2.98	5.96	ng/kg ww
PCB-079	1/1	100	86.6	86.6	86.6	na	ng/kg ww
PCB-080	0/1	0	nd	nd	2.78	5.56	ng/kg ww
PCB-081	1/1	100	21.8 J	21.8 J	21.8	na	ng/kg ww
PCB-082	1/1	100	356	356	356	na	ng/kg ww
PCB-083	1/1	100	19,100 C	19,100 C	19,100	na	ng/kg ww
PCB-084	1/1	100	1,500	1,500	1,500	na	ng/kg ww

Table E.6.3-22, cont.   Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-085	1/1	100	3,730 C	3,730 C	3,730	na	ng/kg ww
PCB-086	1/1	100	8,230 C	8,230 C	8,230	na	ng/kg ww
PCB-087	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-088	1/1	100	1,980 C	1,980 C	1,980	na	ng/kg ww
PCB-089	1/1	100	34.2	34.2	34.2	na	ng/kg ww
PCB-090	1/1	100	23,600 C	23,600 C	23,600	na	ng/kg ww
PCB-091	1/1	100	C88	C88	nc	na	ng/kg ww
PCB-092	1/1	100	5,830	5,830	5,830	na	ng/kg ww
PCB-093	1/1	100	11,300 C	11,300 C	11,300	na	ng/kg ww
PCB-094	1/1	100	26.7	26.7	26.7	na	ng/kg ww
PCB-095	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-096	1/1	100	60.9	60.9	60.9	na	ng/kg ww
PCB-097	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-098	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-099	1/1	100	C83	C83	nc	na	ng/kg ww
PCB-100	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-101	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-102	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-103	1/1	100	436	436	436	na	ng/kg ww
PCB-104	1/1	100	3.12 J	3.12 J	3.12	na	ng/kg ww
PCB-105	1/1	100	6,450	6,450	6,450	na	ng/kg ww
PCB-106	0/1	0	nd	nd	2.48	4.95	ng/kg ww
PCB-107	1/1	100	528 C	528 C	528	na	ng/kg ww
PCB-108	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-109	1/1	100	1,400	1,400	1,400	na	ng/kg ww
PCB-110	1/1	100	20,600 C	20,600 C	20,600	na	ng/kg ww
PCB-111	1/1	100	35.3	35.3	35.3	na	ng/kg ww
PCB-112	0/1	0	nd	nd	1.66	3.31	ng/kg ww
PCB-113	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-114	1/1	100	509	509	509	na	ng/kg ww
PCB-115	1/1	100	C110	C110	nc	na	ng/kg ww
PCB-116	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-117	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-118	1/1	100	22,700	22,700	22,700	na	ng/kg ww
PCB-119	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-120	1/1	100	194	194	194	na	ng/kg ww
PCB-121	1/1	100	14.6	14.6	14.6	na	ng/kg ww

Table E.6.3-22, cont. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-122	0/1	0	nd	nd	2.72	5.43	ng/kg ww
PCB-123	1/1	100	310	310	310	na	ng/kg ww
PCB-124	1/1	100	C107	C107	nc	na	ng/kg ww
PCB-125	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-126	1/1	100	30.2	30.2	30.2	na	ng/kg ww
PCB-127	1/1	100	54.6	54.6	54.6	na	ng/kg ww
PCB-128	1/1	100	4,230 C	4,230 C	4,230	na	ng/kg ww
PCB-129	1/1	100	40,700 C	40,700 C	40,700	na	ng/kg ww
PCB-130	1/1	100	1,110	1,110	1,110	na	ng/kg ww
PCB-131	1/1	100	115	115	115	na	ng/kg ww
PCB-132	1/1	100	3,920	3,920	3,920	na	ng/kg ww
PCB-133	1/1	100	857	857	857	na	ng/kg ww
PCB-134	1/1	100	736 C	736 C	736	na	ng/kg ww
PCB-135	1/1	100	12,000 C	12,000 C	12,000	na	ng/kg ww
PCB-136	1/1	100	2,150	2,150	2,150	na	ng/kg ww
PCB-137	1/1	100	1,520	1,520	1,520	na	ng/kg ww
PCB-138	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-139	1/1	100	791 C	791 C	791	na	ng/kg ww
PCB-140	1/1	100	C139	C139	nc	na	ng/kg ww
PCB-141	1/1	100	5,660	5,660	5,660	na	ng/kg ww
PCB-142	0/1	0	nd	nd	5.45	10.9	ng/kg ww
PCB-143	1/1	100	C134	C134	nc	na	ng/kg ww
PCB-144	1/1	100	1,330	1,330	1,330	na	ng/kg ww
PCB-145	1/1	100	5.76	5.76	5.76	na	ng/kg ww
PCB-146	1/1	100	6,820	6,820	6,820	na	ng/kg ww
PCB-147	1/1	100	16,700 C	16,700 C	16,700	na	ng/kg ww
PCB-148	1/1	100	85.7	85.7	85.7	na	ng/kg ww
PCB-149	1/1	100	C147	C147	nc	na	ng/kg ww
PCB-150	1/1	100	53.7	53.7	53.7	na	ng/kg ww
PCB-151	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-152	1/1	100	8.96	8.96	8.96	na	ng/kg ww
PCB-153	1/1	100	54,000 C	54,000 C	54,000	na	ng/kg ww
PCB-154	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-155	1/1	100	5.87	5.87	5.87	na	ng/kg ww
PCB-156	1/1	100	3,280 C	3,280 C	3,280	na	ng/kg ww
PCB-157	1/1	100	C156	C156	nc	na	ng/kg ww
PCB-158	1/1	100	3,850	3,850	3,850	na	ng/kg ww

Table E.6.3-22, cont. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-159	1/1	100	147	147	147	na	ng/kg ww
PCB-160	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/1	0	nd	nd	3.95	7.89	ng/kg ww
PCB-162	1/1	100	101	101	101	na	ng/kg ww
PCB-163	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-164	1/1	100	1,610	1,610	1,610	na	ng/kg ww
PCB-165	1/1	100	29.8	29.8	29.8	na	ng/kg ww
PCB-166	1/1	100	C128	C128	nc	na	ng/kg ww
PCB-167	1/1	100	1,460	1,460	1,460	na	ng/kg ww
PCB-168	1/1	100	C153	C153	nc	na	ng/kg ww
PCB-169	1/1	100	1.24	1.24	1.24	na	ng/kg ww
PCB-170	1/1	100	8,100	8,100	8,100	na	ng/kg ww
PCB-171	1/1	100	2,750 C	2,750 C	2,750	na	ng/kg ww
PCB-172	1/1	100	1,300	1,300	1,300	na	ng/kg ww
PCB-173	1/1	100	C171	C171	nc	na	ng/kg ww
PCB-174	1/1	100	3,070	3,070	3,070	na	ng/kg ww
PCB-175	1/1	100	322	322	322	na	ng/kg ww
PCB-176	1/1	100	568	568	568	na	ng/kg ww
PCB-177	1/1	100	2,490	2,490	2,490	na	ng/kg ww
PCB-178	1/1	100	2,250	2,250	2,250	na	ng/kg ww
PCB-179	1/1	100	2,730	2,730	2,730	na	ng/kg ww
PCB-180	1/1	100	22,300 C	22,300 C	22,300	na	ng/kg ww
PCB-181	1/1	100	65.3	65.3	65.3	na	ng/kg ww
PCB-182	1/1	100	112	112	112	na	ng/kg ww
PCB-183	1/1	100	8,200 C	8,200 C	8,200	na	ng/kg ww
PCB-184	1/1	100	6.51	6.51	6.51	na	ng/kg ww
PCB-185	1/1	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/1	0	nd	nd	0.315	0.629	ng/kg ww
PCB-187	1/1	100	11,700	11,700	11,700	na	ng/kg ww
PCB-188	1/1	100	22.0	22.0	22.0	na	ng/kg ww
PCB-189	1/1	100	252	252	252	na	ng/kg ww
PCB-190	1/1	100	2,010	2,010	2,010	na	ng/kg ww
PCB-191	1/1	100	444	444	444	na	ng/kg ww
PCB-192	0/1	0	nd	nd	0.353	0.705	ng/kg ww
PCB-193	1/1	100	C180	C180	nc	na	ng/kg ww
PCB-194	1/1	100	2,680	2,680	2,680	na	ng/kg ww
PCB-195	1/1	100	1,210	1,210	1,210	na	ng/kg ww

Table E.6.3-22, cont. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
PCB-196	1/1	100	1,760	1,760	1,760	na	ng/kg ww
PCB-197	1/1	100	365 C	365 C	365	na	ng/kg ww
PCB-198	1/1	100	2,910 C	2,910 C	2,910	na	ng/kg ww
PCB-199	1/1	100	C198	C198	nc	na	ng/kg ww
PCB-200	1/1	100	C197	C197	nc	na	ng/kg ww
PCB-201	1/1	100	432	432	432	na	ng/kg ww
PCB-202	1/1	100	845	845	845	na	ng/kg ww
PCB-203	1/1	100	2,570	2,570	2,570	na	ng/kg ww
PCB-204	1/1	100	1.27 J	1.27 J	1.27	na	ng/kg ww
PCB-205	1/1	100	159	159	159	na	ng/kg ww
PCB-206	1/1	100	632	632	632	na	ng/kg ww
PCB-207	1/1	100	89.9	89.9	89.9	na	ng/kg ww
PCB-208	1/1	100	163	163	163	na	ng/kg ww
PCB-209	1/1	100	109	109	109	na	ng/kg ww
Total PCB congeners	1/1	100	458,000 J	458,000 J	458,000	nc	ng/kg ww
Aroclor-1016	0/3	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1221	0/3	0	nd	nd	15	29	µg/kg ww
Aroclor-1232	0/3	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1242	0/3	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1248	3/3	100	96	120	110	na	µg/kg ww
Aroclor-1254	3/3	100	170	250	220	na	µg/kg ww
Aroclor-1260	3/3	100	180	290	240	na	µg/kg ww
Total PCBs	3/3	100	450	660	570	nc	µg/kg ww
PCB TEQ – Bird	1/1	100	18.60 J	18.60 J	18.6	na	ng/kg ww
PCB TEQ – Fish	1/1	100	0.3610 J	0.3610 J	0.361	na	ng/kg ww
PCB TEQ – Mammal	1/1	100	4.14 J	4.14 J	4.14	na	ng/kg ww
Pesticides							
2,4'-DDD	0/3	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDE	1/3	33	5.1 JN	5.1 JN	4.1	7.2	µg/kg ww
2,4'-DDT	3/3	100	23 JN	40 JN	31	na	µg/kg ww
4,4'-DDD	3/3	100	3.4 JN	4.4 JN	4.0	na	µg/kg ww
4,4'-DDE	3/3	100	6.7 JN	8.6 JN	7.9	na	µg/kg ww
4,4'-DDT	3/3	100	18 JN	27 JN	23	na	µg/kg ww
Total DDTs	3/3	100	51 JN	80 JN	68	nc	µg/kg ww
Aldrin	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Dieldrin	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Total aldrin/dieldrin	0/3	0	nd	nd	3.6	nc	µg/kg ww

Table E.6.3-22, cont. Summary statistics for starry flounder, whole body

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
alpha-BHC	0/3	0	nd	nd	3.6	7.2	µg/kg ww
beta-BHC	1/3	33	4.0 JN	4.0 JN	3.7	7.2	µg/kg ww
gamma-BHC	0/3	0	nd	nd	3.6	7.2	µg/kg ww
delta-BHC	0/3	0	nd	nd	3.6	7.2	µg/kg ww
alpha-Chlordane	0/3	0	nd	nd	3.6	7.2	µg/kg ww
gamma-Chlordane	3/3	100	6.3 JN	11 JN	8.3	na	µg/kg ww
alpha-Endosulfan	0/3	0	nd	nd	3.6	7.2	µg/kg ww
beta-Endosulfan	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Endosulfan sulfate	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Endrin	2/3	67	0.86 JN	2.8 JN	2.4	7.2	µg/kg ww
Endrin aldehyde	1/3	33	7.1 JN	7.1 JN	4.8	7.2	µg/kg ww
Endrin ketone	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor epoxide	1/3	33	7.9 JN	7.9 JN	5.0	7.2	µg/kg ww
Methoxychlor	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Mirex	0/3	0	nd	nd	3.6	7.2	µg/kg ww
Toxaphene	0/3	0	nd	nd	180	360	µg/kg ww
Total chlordane	3/3	100	6.3 JN	11 JN	8.3	nc	µg/kg ww
Conventional parameters							
Total solids	3/3	100	22.2	22.9	22.6	na	% ww
Lipid	3/3	100	2.1	2.5	2.2	na	% ww

Table E.6.3-23. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit
Metals and trace elements							
Antimony	0/1	0	nd	nd	0.00570	0.0114	mg/kg ww
Arsenic	1/1	100	0.274	0.274	0.274	na	mg/kg ww
Arsenic (inorganic)	0/1	0	nd	nd	0.0050	0.010	mg/kg ww
Cadmium	0/1	0	nd	nd	0.0023	0.0046	mg/kg ww
Chromium	0/1	0	nd	nd	0.055	0.11	mg/kg ww
Cobalt	1/1	100	0.0071	0.0071	0.0071	na	mg/kg ww
Copper	1/1	100	1.250	1.250	1.250	na	mg/kg ww
Lead	1/1	100	0.023	0.023	0.023	na	mg/kg ww
Mercury	3/3	100	0.020 J	0.053	0.034	na	mg/kg ww
Molybdenum	1/1	100	0.0025 J	0.0025 J	0.0025	na	mg/kg ww
Nickel	1/1	100	0.064	0.064	0.064	na	mg/kg ww
Selenium	1/1	100	0.10	0.10	0.10	na	mg/kg ww
Silver	0/1	0	nd	nd	0.0023	0.0046	mg/kg ww
Thallium	0/1	0	nd	nd	0.0023	0.0046	mg/kg ww
Vanadium	0/1	0	nd	nd	0.1	0.2	mg/kg ww
Zinc	1/1	100	9.33	9.33	9.33	na	mg/kg ww
Organometals							
Monobutyltin as ion	0/1	0	nd	nd	0.75	1.5	µg/kg ww
Dibutyltin as ion	1/1	100	1.3 J	1.3 J	1.3	na	µg/kg ww
Tributyltin as ion	3/3	100	7.0	16 J	11	na	µg/kg ww
Tetrabutyltin as ion	0/1	0	nd	nd	0.75	1.5	µg/kg ww
PAHs							
2-Chloronaphthalene	0/1	0	nd	nd	290	580	µg/kg ww
2-Methylnaphthalene	1/1	100	0.94 J	0.94 J	0.94	na	µg/kg ww
Acenaphthene	1/1	100	2.8	2.8	2.8	na	µg/kg ww
Acenaphthylene	0/1	0	nd	nd	0.13	0.26	µg/kg ww
Anthracene	0/1	0	nd	nd	0.21	0.41	µg/kg ww
Benzo(a)anthracene	1/1	100	0.069 J	0.069 J	0.069	na	µg/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Benzo(a)pyrene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Benzo(b)fluoranthene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Benzo(g,h,i)perylene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Benzo(k)fluoranthene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Total benzofluoranthenes	0/1	0	nd	nd	0.25	nc	µg/kg ww
Chrysene	1/1	100	0.14 J	0.14 J	0.14	na	µg/kg ww
Dibenzo(a,h)anthracene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Dibenzofuran	1/1	100	1.6	1.6	1.6	na	µg/kg ww
Fluoranthene	0/1	0	nd	nd	0.70	1.4	µg/kg ww
Fluorene	1/1	100	1.4	1.4	1.4	na	µg/kg ww
Indeno(1,2,3-cd)pyrene	0/1	0	nd	nd	0.25	0.50	µg/kg ww
Naphthalene	0/1	0	nd	nd	0.65	1.3	µg/kg ww
Phenanthrene	1/1	100	1.9	1.9	1.9	na	µg/kg ww
Pyrene	0/1	0	nd	nd	0.24	0.48	µg/kg ww
Total HPAH	1/1	100	0.21 J	0.21 J	0.21	nc	µg/kg ww
Total LPAH	1/1	100	6.1	6.1	6.1	nc	µg/kg ww
Carcinogenic PAHs – Mammal	1/1	100	0.43 J	0.43 J	0.43	na	µg/kg ww
Total PAH	1/1	100	6.3 J	6.3 J	6.3	nc	µg/kg ww
Phthalates							
Bis(2-ethylhexyl)phthalate	0/1	0	nd	nd	34	67	µg/kg ww
Butyl benzyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Diethyl phthalate	0/1	0	nd	nd	600	1,200	µg/kg ww
Dimethyl phthalate	0/1	0	nd	nd	290	580	µg/kg ww
Di-n-butyl phthalate	0/1	0	nd	nd	210	410	µg/kg ww
Di-n-octyl phthalate	0/1	0	nd	nd	1,500	2,900	µg/kg ww
Other SVOCs							
1,2,4-Trichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
1,2-Dichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
1,3-Dichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
1,4-Dichlorobenzene	0/1	0	nd	nd	290	580	µg/kg ww
2,4,5-Trichlorophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
2,4,6-Trichlorophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2,4-Dichlorophenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2,4-Dimethylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2,4-Dinitrophenol	0/1	0	nd	nd	6,000	12,000	µg/kg ww
2,4-Dinitrotoluene	0/1	0	nd	nd	600	1,200	µg/kg ww
2,6-Dinitrotoluene	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Chlorophenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Methylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
2-Nitroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
2-Nitrophenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
3,3'-Dichlorobenzidine	0/1	0	nd	nd	15,000	29,000	µg/kg ww
3-Nitroaniline	0/1	0	nd	nd	2,900	5,800	µg/kg ww
4,6-Dinitro-o-cresol	0/1	0	nd	nd	2,900	5,800	µg/kg ww
4-Bromophenyl phenyl ether	0/1	0	nd	nd	290	580	µg/kg ww
4-Chloro-3-methylphenol	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Chloroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Chlorophenyl phenyl ether	0/1	0	nd	nd	290	580	µg/kg ww
4-Methylphenol	0/1	0	nd	nd	600	1,200	µg/kg ww
4-Nitroaniline	0/1	0	nd	nd	1,500	2,900	µg/kg ww
4-Nitrophenol	0/1	0	nd	nd	2,900	5,800	µg/kg ww
Aniline	0/1	0	nd	nd	6,000	12,000	µg/kg ww
Benzoic acid	0/1	0	nd	nd	6,000	12,000	µg/kg ww
Benzyl alcohol	0/1	0	nd	nd	290	580	µg/kg ww
bis(2-chloroethoxy)methane	0/1	0	nd	nd	290	580	µg/kg ww
bis(2-chloroethyl)ether	0/1	0	nd	nd	290	580	µg/kg ww
bis(2-chloroisopropyl)ether	0/1	0	nd	nd	290	580	µg/kg ww
Carbazole	0/1	0	nd	nd	1,500	2,900	µg/kg ww
Hexachlorobenzene	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Hexachlorobutadiene	0/1	0	nd	nd	290	580	µg/kg ww
Hexachlorocyclopentadiene	0/1	0	nd	nd	36,000	72,000	µg/kg ww
Hexachloroethane	0/1	0	nd	nd	290	580	µg/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Isophorone	0/1	0	nd	nd	290	580	µg/kg ww
Nitrobenzene	0/1	0	nd	nd	290	580	µg/kg ww
N-Nitrosodimethylamine	0/1	0	nd	nd	1,500	2,900	µg/kg ww
N-Nitroso-di-n-propylamine	0/1	0	nd	nd	290	580	µg/kg ww
N-Nitrosodiphenylamine	0/1	0	nd	nd	290	580	µg/kg ww
Pentachlorophenol	0/1	0	nd	nd	3.4	6.7	µg/kg ww
Phenol	0/1	0	nd	nd	750	1,500	µg/kg ww
Polychlorinated biphenyls							
PCB-001	1/1	100	1.94 J	1.94 J	1.94	na	ng/kg ww
PCB-002	1/1	100	0.525 J	0.525 J	0.525	na	ng/kg ww
PCB-003	1/1	100	0.787 J	0.787 J	0.787	na	ng/kg ww
PCB-004	1/1	100	17.9	17.9	17.9	na	ng/kg ww
PCB-005	1/1	100	0.691 J	0.691 J	0.691	na	ng/kg ww
PCB-006	1/1	100	19.1	19.1	19.1	na	ng/kg ww
PCB-007	1/1	100	2.01 J	2.01 J	2.01	na	ng/kg ww
PCB-008	1/1	100	22.7	22.7	22.7	na	ng/kg ww
PCB-009	1/1	100	7.78	7.78	7.78	na	ng/kg ww
PCB-010	1/1	100	2.51 J	2.51 J	2.51	na	ng/kg ww
PCB-011	1/1	100	4.20 J	4.20 J	4.20	na	ng/kg ww
PCB-012	1/1	100	4.50 CJ	4.50 CJ	4.50	na	ng/kg ww
PCB-013	1/1	100	C12	C12	nc	na	ng/kg ww
PCB-014	0/1	0	nd	nd	0.140	0.280	ng/kg ww
PCB-015	1/1	100	16.9	16.9	16.9	na	ng/kg ww
PCB-016	1/1	100	18.4	18.4	18.4	na	ng/kg ww
PCB-017	1/1	100	95.0	95.0	95.0	na	ng/kg ww
PCB-018	1/1	100	406 C	406 C	406	na	ng/kg ww
PCB-019	1/1	100	30.0	30.0	30.0	na	ng/kg ww
PCB-020	1/1	100	2,850 C	2,850 C	2,850	na	ng/kg ww
PCB-021	1/1	100	131 C	131 C	131	na	ng/kg ww
PCB-022	1/1	100	186	186	186	na	ng/kg ww
PCB-023	1/1	100	1.44 J	1.44 J	1.44	na	ng/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-024	1/1	100	9.26	9.26	9.26	na	ng/kg ww
PCB-025	1/1	100	405	405	405	na	ng/kg ww
PCB-026	1/1	100	1,120 C	1,120 C	1,120	na	ng/kg ww
PCB-027	1/1	100	46.7	46.7	46.7	na	ng/kg ww
PCB-028	1/1	100	C20	C20	nc	na	ng/kg ww
PCB-029	1/1	100	C26	C26	nc	na	ng/kg ww
PCB-030	1/1	100	C18	C18	nc	na	ng/kg ww
PCB-031	1/1	100	1,820	1,820	1,820	na	ng/kg ww
PCB-032	1/1	100	296	296	296	na	ng/kg ww
PCB-033	1/1	100	C21	C21	nc	na	ng/kg ww
PCB-034	1/1	100	12.1	12.1	12.1	na	ng/kg ww
PCB-035	0/1	0	nd	nd	0.422	0.844	ng/kg ww
PCB-036	0/1	0	nd	nd	0.392	0.784	ng/kg ww
PCB-037	1/1	100	129	129	129	na	ng/kg ww
PCB-038	1/1	100	1.64 J	1.64 J	1.64	na	ng/kg ww
PCB-039	1/1	100	4.49 J	4.49 J	4.49	na	ng/kg ww
PCB-040	1/1	100	517 C	517 C	517	na	ng/kg ww
PCB-041	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-042	1/1	100	293	293	293	na	ng/kg ww
PCB-043	0/1	0	nd	nd	0.105	0.209	ng/kg ww
PCB-044	1/1	100	3,390 C	3,390 C	3,390	na	ng/kg ww
PCB-045	1/1	100	203 C	203 C	203	na	ng/kg ww
PCB-046	1/1	100	32.6	32.6	32.6	na	ng/kg ww
PCB-047	1/1	100	C44	C44	nc	na	ng/kg ww
PCB-048	1/1	100	247	247	247	na	ng/kg ww
PCB-049	1/1	100	5,410 C	5,410 C	5,410	na	ng/kg ww
PCB-050	1/1	100	325 C	325 C	325	na	ng/kg ww
PCB-051	1/1	100	C45	C45	nc	na	ng/kg ww
PCB-052	1/1	100	13,600	13,600	13,600	na	ng/kg ww
PCB-053	1/1	100	C50	C50	nc	na	ng/kg ww
PCB-054	1/1	100	5.25	5.25	5.25	na	ng/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-055	0/1	0	nd	nd	2.48	4.95	ng/kg ww
PCB-056	1/1	100	332	332	332	na	ng/kg ww
PCB-057	1/1	100	111	111	111	na	ng/kg ww
PCB-058	1/1	100	50.7	50.7	50.7	na	ng/kg ww
PCB-059	1/1	100	511 C	511 C	511	na	ng/kg ww
PCB-060	1/1	100	932	932	932	na	ng/kg ww
PCB-061	1/1	100	9,710 C	9,710 C	9,710	na	ng/kg ww
PCB-062	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-063	1/1	100	400	400	400	na	ng/kg ww
PCB-064	1/1	100	1,820	1,820	1,820	na	ng/kg ww
PCB-065	1/1	100	C44	C44	nc	na	ng/kg ww
PCB-066	1/1	100	6,150	6,150	6,150	na	ng/kg ww
PCB-067	1/1	100	148	148	148	na	ng/kg ww
PCB-068	1/1	100	215	215	215	na	ng/kg ww
PCB-069	1/1	100	C49	C49	nc	na	ng/kg ww
PCB-070	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-071	1/1	100	C40	C40	nc	na	ng/kg ww
PCB-072	1/1	100	367	367	367	na	ng/kg ww
PCB-073	0/1	0	nd	nd	0.0710	0.142	ng/kg ww
PCB-074	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-075	1/1	100	C59	C59	nc	na	ng/kg ww
PCB-076	1/1	100	C61	C61	nc	na	ng/kg ww
PCB-077	1/1	100	193	193	193	na	ng/kg ww
PCB-078	0/1	0	nd	nd	2.55	5.10	ng/kg ww
PCB-079	1/1	100	139	139	139	na	ng/kg ww
PCB-080	0/1	0	nd	nd	2.38	4.76	ng/kg ww
PCB-081	1/1	100	25.3 J	25.3 J	25.3	na	ng/kg ww
PCB-082	1/1	100	193	193	193	na	ng/kg ww
PCB-083	1/1	100	21,400 C	21,400 C	21,400	na	ng/kg ww
PCB-084	1/1	100	921	921	921	na	ng/kg ww
PCB-085	1/1	100	1,850 C	1,850 C	1,850	na	ng/kg ww

Table E.6.3-23, cont.   Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-086	1/1	100	7,510 C	7,510 C	7,510	na	ng/kg ww
PCB-087	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-088	1/1	100	2,070 C	2,070 C	2,070	na	ng/kg ww
PCB-089	1/1	100	13.7	13.7	13.7	na	ng/kg ww
PCB-090	1/1	100	23,600 C	23,600 C	23,600	na	ng/kg ww
PCB-091	1/1	100	C88	C88	nc	na	ng/kg ww
PCB-092	1/1	100	5,420	5,420	5,420	na	ng/kg ww
PCB-093	1/1	100	8,300 C	8,300 C	8,300	na	ng/kg ww
PCB-094	1/1	100	11.6	11.6	11.6	na	ng/kg ww
PCB-095	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-096	1/1	100	26.7	26.7	26.7	na	ng/kg ww
PCB-097	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-098	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-099	1/1	100	C83	C83	nc	na	ng/kg ww
PCB-100	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-101	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-102	1/1	100	C93	C93	nc	na	ng/kg ww
PCB-103	1/1	100	121	121	121	na	ng/kg ww
PCB-104	1/1	100	2.00 J	2.00 J	2.00	na	ng/kg ww
PCB-105	1/1	100	8,730	8,730	8,730	na	ng/kg ww
PCB-106	0/1	0	nd	nd	3.18	6.35	ng/kg ww
PCB-107	1/1	100	605 C	605 C	605	na	ng/kg ww
PCB-108	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-109	1/1	100	2,220	2,220	2,220	na	ng/kg ww
PCB-110	1/1	100	15,700 C	15,700 C	15,700	na	ng/kg ww
PCB-111	1/1	100	37.6	37.6	37.6	na	ng/kg ww
PCB-112	0/1	0	nd	nd	1.64	3.27	ng/kg ww
PCB-113	1/1	100	C90	C90	nc	na	ng/kg ww
PCB-114	1/1	100	545	545	545	na	ng/kg ww
PCB-115	1/1	100	C110	C110	nc	na	ng/kg ww
PCB-116	1/1	100	C85	C85	nc	na	ng/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-117	1/1	100	C85	C85	nc	na	ng/kg ww
PCB-118	1/1	100	28,300	28,300	28,300	na	ng/kg ww
PCB-119	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-120	1/1	100	209	209	209	na	ng/kg ww
PCB-121	1/1	100	16.8	16.8	16.8	na	ng/kg ww
PCB-122	1/1	100	127	127	127	na	ng/kg ww
PCB-123	1/1	100	489	489	489	na	ng/kg ww
PCB-124	1/1	100	C107	C107	nc	na	ng/kg ww
PCB-125	1/1	100	C86	C86	nc	na	ng/kg ww
PCB-126	1/1	100	50.4	50.4	50.4	na	ng/kg ww
PCB-127	1/1	100	57.8	57.8	57.8	na	ng/kg ww
PCB-128	1/1	100	4,330 C	4,330 C	4,330	na	ng/kg ww
PCB-129	1/1	100	50,800 C	50,800 C	50,800	na	ng/kg ww
PCB-130	1/1	100	2,370	2,370	2,370	na	ng/kg ww
PCB-131	1/1	100	77.8	77.8	77.8	na	ng/kg ww
PCB-132	1/1	100	3,630	3,630	3,630	na	ng/kg ww
PCB-133	1/1	100	904	904	904	na	ng/kg ww
PCB-134	1/1	100	834 C	834 C	834	na	ng/kg ww
PCB-135	1/1	100	10,700 C	10,700 C	10,700	na	ng/kg ww
PCB-136	1/1	100	1,420	1,420	1,420	na	ng/kg ww
PCB-137	1/1	100	1,880	1,880	1,880	na	ng/kg ww
PCB-138	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-139	1/1	100	660 C	660 C	660	na	ng/kg ww
PCB-140	1/1	100	C139	C139	nc	na	ng/kg ww
PCB-141	1/1	100	4,830	4,830	4,830	na	ng/kg ww
PCB-142	0/1	0	nd	nd	6.55	13.1	ng/kg ww
PCB-143	1/1	100	C134	C134	nc	na	ng/kg ww
PCB-144	1/1	100	691	691	691	na	ng/kg ww
PCB-145	1/1	100	5.80	5.80	5.80	na	ng/kg ww
PCB-146	1/1	100	8,770	8,770	8,770	na	ng/kg ww
PCB-147	1/1	100	17,100 C	17,100 C	17,100	na	ng/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-148	1/1	100	136	136	136	na	ng/kg ww
PCB-149	1/1	100	C147	C147	nc	na	ng/kg ww
PCB-150	1/1	100	36.4	36.4	36.4	na	ng/kg ww
PCB-151	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-152	1/1	100	10.3	10.3	10.3	na	ng/kg ww
PCB-153	1/1	100	47,800 C	47,800 C	47,800	na	ng/kg ww
PCB-154	1/1	100	C135	C135	nc	na	ng/kg ww
PCB-155	1/1	100	5.20	5.20	5.20	na	ng/kg ww
PCB-156	1/1	100	3,990 C	3,990 C	3,990	na	ng/kg ww
PCB-157	1/1	100	C156	C156	nc	na	ng/kg ww
PCB-158	1/1	100	4,810	4,810	4,810	na	ng/kg ww
PCB-159	1/1	100	114	114	114	na	ng/kg ww
PCB-160	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-161	0/1	0	nd	nd	4.75	9.50	ng/kg ww
PCB-162	1/1	100	116	116	116	na	ng/kg ww
PCB-163	1/1	100	C129	C129	nc	na	ng/kg ww
PCB-164	1/1	100	1,950	1,950	1,950	na	ng/kg ww
PCB-165	1/1	100	31.0	31.0	31.0	na	ng/kg ww
PCB-166	1/1	100	C128	C128	nc	na	ng/kg ww
PCB-167	1/1	100	1,500	1,500	1,500	na	ng/kg ww
PCB-168	1/1	100	C153	C153	nc	na	ng/kg ww
PCB-169	0/1	0	nd	nd	14.0	28.0	ng/kg ww
PCB-170	1/1	100	9,650	9,650	9,650	na	ng/kg ww
PCB-171	1/1	100	3,000 C	3,000 C	3,000	na	ng/kg ww
PCB-172	1/1	100	1,430	1,430	1,430	na	ng/kg ww
PCB-173	1/1	100	C171	C171	nc	na	ng/kg ww
PCB-174	1/1	100	2,650	2,650	2,650	na	ng/kg ww
PCB-175	1/1	100	443	443	443	na	ng/kg ww
PCB-176	1/1	100	379	379	379	na	ng/kg ww
PCB-177	1/1	100	5,380	5,380	5,380	na	ng/kg ww
PCB-178	1/1	100	2,350	2,350	2,350	na	ng/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-179	1/1	100	2,260	2,260	2,260	na	ng/kg ww
PCB-180	1/1	100	24,400 C	24,400 C	24,400	na	ng/kg ww
PCB-181	1/1	100	61.2	61.2	61.2	na	ng/kg ww
PCB-182	1/1	100	111	111	111	na	ng/kg ww
PCB-183	1/1	100	7,930 C	7,930 C	7,930	na	ng/kg ww
PCB-184	1/1	100	6.55	6.55	6.55	na	ng/kg ww
PCB-185	1/1	100	C183	C183	nc	na	ng/kg ww
PCB-186	0/1	0	nd	nd	0.207	0.413	ng/kg ww
PCB-187	1/1	100	15,800	15,800	15,800	na	ng/kg ww
PCB-188	1/1	100	21.6	21.6	21.6	na	ng/kg ww
PCB-189	1/1	100	291	291	291	na	ng/kg ww
PCB-190	1/1	100	2,150	2,150	2,150	na	ng/kg ww
PCB-191	1/1	100	491	491	491	na	ng/kg ww
PCB-192	0/1	0	nd	nd	0.232	0.463	ng/kg ww
PCB-193	1/1	100	C180	C180	nc	na	ng/kg ww
PCB-194	1/1	100	2,670	2,670	2,670	na	ng/kg ww
PCB-195	1/1	100	1,280	1,280	1,280	na	ng/kg ww
PCB-196	1/1	100	1,780	1,780	1,780	na	ng/kg ww
PCB-197	1/1	100	270 C	270 C	270	na	ng/kg ww
PCB-198	1/1	100	2,490 C	2,490 C	2,490	na	ng/kg ww
PCB-199	1/1	100	C198	C198	nc	na	ng/kg ww
PCB-200	1/1	100	C197	C197	nc	na	ng/kg ww
PCB-201	1/1	100	493	493	493	na	ng/kg ww
PCB-202	1/1	100	681	681	681	na	ng/kg ww
PCB-203	1/1	100	2,230	2,230	2,230	na	ng/kg ww
PCB-204	1/1	100	0.842 J	0.842 J	0.842	na	ng/kg ww
PCB-205	1/1	100	131	131	131	na	ng/kg ww
PCB-206	1/1	100	462	462	462	na	ng/kg ww
PCB-207	1/1	100	79.2	79.2	79.2	na	ng/kg ww
PCB-208	1/1	100	72.5	72.5	72.5	na	ng/kg ww
PCB-209	1/1	100	38.1	38.1	38.1	na	ng/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
Total PCB congeners	1/1	100	442,300 J	442,300 J	442,000	nc	ng/kg ww
Aroclor-1016	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1016/1242	2/2	100	7.4 J	9.4 J	8.4	na	µg/kg ww
Aroclor-1221	0/1	0	nd	nd	15	29	µg/kg ww
Aroclor-1232	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1242	0/1	0	nd	nd	7.5	15	µg/kg ww
Aroclor-1248	1/3	33	98	98	33	0.34 – 0.46	µg/kg ww
Aroclor-1254	3/3	100	76 J	220	130	na	µg/kg ww
Aroclor-1260	3/3	100	80 J	310	160	na	µg/kg ww
Total PCBs	3/3	100	164 J	630	320	nc	µg/kg ww
PCB TEQ – Bird	1/1	100	18.90 J	18.90 J	18.9	na	ng/kg ww
PCB TEQ – Fish	1/1	100	0.5040 J	0.5040 J	0.504	na	ng/kg ww
PCB TEQ – Mammal	1/1	100	6.80 J	6.80 J	6.80	na	ng/kg ww
Pesticides							
2,4'-DDD	0/1	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDE	0/1	0	nd	nd	3.6	7.2	µg/kg ww
2,4'-DDT	1/1	100	13 JN	13 JN	13	na	µg/kg ww
4,4'-DDD	0/1	0	nd	nd	3.6	7.2	µg/kg ww
4,4'-DDE	1/1	100	1.5 JN	1.5 JN	1.5	na	µg/kg ww
4,4'-DDT	1/1	100	11 JN	11 JN	11	na	µg/kg ww
Total DDTs	1/1	100	26 JN	26 JN	26	nc	µg/kg ww
Aldrin	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Dieldrin	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Total aldrin/dieldrin	0/1	0	nd	nd	3.6	nc	µg/kg ww
alpha-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
beta-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
gamma-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
delta-BHC	0/1	0	nd	nd	3.6	7.2	µg/kg ww
alpha-Chlordane	0/1	0	nd	nd	3.6	7.2	µg/kg ww
gamma-Chlordane	1/1	100	5.9 JN	5.9 JN	5.9	na	µg/kg ww
alpha-Endosulfan	0/1	0	nd	nd	3.6	7.2	µg/kg ww

Table E.6.3-23, cont. Summary statistics for striped perch, fillet with skin

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
beta-Endosulfan	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endosulfan sulfate	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endrin	1/1	100	2.4 JN	2.4 JN	2.4	na	µg/kg ww
Endrin aldehyde	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Endrin ketone	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Heptachlor epoxide	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Methoxychlor	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Mirex	0/1	0	nd	nd	3.6	7.2	µg/kg ww
Toxaphene	0/1	0	nd	nd	180	360	µg/kg ww
Total chlordane	1/1	100	5.9 JN	5.9 JN	5.9	nc	µg/kg ww
Conventional parameters							
Total solids	1/1	100	22.9	22.9	22.9	na	% ww
Lipid	1/1	100	1.4	1.4	1.4	na	% ww

E.6.4 SURFACE WATER

Table E.6.4-1. Summary statistics for surface water

Location ID and Chemical	Detection Frequency		Concentration					Criteria		Comparison to WQS			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Chronic WQS	Acute WQS	Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Brandon													
Metals and trace elements													
Antimony (dissolved)	71/71	100	0.013	0.116	0.051	na	µg/L	na	na	na	na	na	na
Antimony (total)	150/166	90	0.011	0.131	0.039	0.0097 – 0.011	µg/L	na	na	na	na	na	na
Arsenic (dissolved)	72/72	100	0.237	1.46	0.855	na	µg/L	36	69	0	0	0	0
Arsenic (total)	167/167	100	0.292	1.53	0.931	na	µg/L	na	na	na	na	na	na
Beryllium (dissolved)	0/66	0	nd	nd	0.0074	0.013 – 0.016	µg/L	na	na	na	na	na	na
Beryllium (total)	14/161	9	0.016	0.027	0.0087	0.013 – 0.016	µg/L	na	na	na	na	na	na
Cadmium (dissolved)	72/72	100	0.011	0.0755	0.047	na	µg/L	9.3	42	0	0	0	0
Cadmium (total)	173/173	100	0.0088	0.0780	0.047	na	µg/L	na	na	na	na	na	na
Chromium (dissolved)	68/68	100	0.11 J	0.576 J	0.28	na	µg/L	50	1,100	0	0	0	0
Chromium (total)	165/165	100	0.240 J	1.74 J	0.571	na	µg/L	na	na	na	na	na	na
Cobalt (dissolved)	72/72	100	0.021	0.141	0.052	na	µg/L	na	na	na	na	na	na
Cobalt (total)	155/155	100	0.0334	0.575	0.178	na	µg/L	na	na	na	na	na	na
Copper (dissolved)	65/65	100	0.384 J	1.54 J	0.661	na	µg/L	3.1	4.8	0	0	0	0
Copper (total)	166/166	100	0.536 J	5.83 J	1.42	na	µg/L	na	na	na	na	na	na
Lead (dissolved)	70/70	100	0.010 J	0.553 J	0.042	na	µg/L	8.1	210	0	0	0	0
Lead (total)	171/171	100	0.0459 J	1.45 J	0.345	na	µg/L	na	na	na	na	na	na
Mercury (dissolved)	8/9	89	0.00013	0.00051	0.0003	0.0001	µg/L	0.025	1.8	0	0	0	0
Mercury (total)	9/15	60	0.00056	0.00336	0.041	0.20	µg/L	na	na	na	na	na	na
Nickel (dissolved)	61/65	94	0.274 J	0.910 J	0.386	0.154 – 0.387	µg/L	8.2	74	0	0	0	0
Nickel (total)	145/147	99	0.394 J	2.11 J	0.672	0.348 – 0.386	µg/L	na	na	na	na	na	na
Selenium (dissolved)	1/66	2	0.16	0.16	0.075	0.13 – 0.16	µg/L	na	na	na	na	na	na
Selenium (total)	3/151	2	0.15	0.27	0.077	0.13 – 0.16	µg/L	na	na	na	na	na	na
Silver (dissolved)	0/72	0	nd	nd	0.060	0.11 – 0.13	µg/L	nv	1.9	na	0	na	0
Silver (total)	0/173	0	nd	nd	0.060	0.10 – 0.13	µg/L	nv	1.9	na	0	na	0
Thallium (dissolved)	40/72	56	0.0050	0.011	0.0064	0.0046 – 0.0053	µg/L	na	na	na	na	na	na
Thallium (total)	121/173	70	0.0049	0.013	0.0069	0.0044 – 0.0053	µg/L	na	na	na	na	na	na
Vanadium (dissolved)	50/50	100	0.193	1.57	0.978	na	µg/L	na	na	na	na	na	na
Vanadium (Total)	133/133	100	0.267	2.96	1.36	na	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency: Ratio	%	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Criteria: Chronic WQS	Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Zinc (dissolved)	72/72	100	0.750 J	5.39 J	2.16	na	µg/L	81	90	0	0	0	0
Zinc (total)	173/173	100	0.70 J	8.34 J	2.8	na	µg/L	na	na	na	na	na	na
PAHs													
2-Chloronaphthalene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
2-Methylnaphthalene	0/39	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Acenaphthene	0/39	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
Acenaphthylene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Anthracene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Benzo(a)anthracene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Benzo(a)pyrene	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Benzo(b)fluoranthene	0/39	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Benzo(g,h,i)perylene	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Benzo(k)fluoranthene	0/39	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Benzofluoranthenes (total-calc'd)	0/39	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Chrysene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Dibenzo(a,h)anthracene	0/39	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Dibenzofuran	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Fluoranthene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Fluorene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Naphthalene	0/39	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Phenanthrene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Pyrene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Total HPAH	0/39	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Total LPAH	0/39	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Carcinogenic PAHs - Mammal	0/39	0	nd	nd	0.13	0.25 – 0.26	µg/L	na	na	na	na	na	na
Total PAH	0/39	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Phthalates													
Bis(2-ethylhexyl)phthalate	7/39	18	0.21	3.51	0.43	0.14 – 1.31	µg/L	na	na	na	na	na	na
Butyl benzyl phthalate	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Diethyl phthalate	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Dimethyl phthalate	0/39	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
Di-n-butyl phthalate	2/39	5	0.25	0.26	0.13	0.24	µg/L	na	na	na	na	na	na
Di-n-octyl phthalate	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Criteria: Chronic WQS	Criteria: Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Comparison to WQS: Detect > Acute	Comparison to WQS: Nondetect > Chronic and ≤ Acute	Comparison to WQS: Nondetect > Acute
Other SVOCs													
1,2,4-Trichlorobenzene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
1,2-Dichlorobenzene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
1,2-Diphenylhydrazine	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
1,3-Dichlorobenzene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
1,4-Dichlorobenzene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
2,4,5-Trichlorophenol	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
2,4,6-Trichlorophenol	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
2,4-Dichlorophenol	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
2,4-Dimethylphenol	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
2,4-Dinitrophenol	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
2,4-Dinitrotoluene	0/39	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
2,6-Dinitrotoluene	0/39	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
2-Chlorophenol	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
2-Methylphenol	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
2-Nitroaniline	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
2-Nitrophenol	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
3,3'-Dichlorobenzidine	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
3-Nitroaniline	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
4,6-Dinitro-o-cresol	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
4-Bromophenyl phenyl ether	0/39	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
4-Chloro-3-methylphenol	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
4-Chloroaniline	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
4-Methylphenol	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
4-Nitroaniline	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
4-Nitrophenol	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
Aniline	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
Benzidine	0/39	0	nd	nd	2.9	5.7 – 5.8	µg/L	na	na	na	na	na	na
Benzoic acid	5/39	13	0.98	1.4	0.56	0.94 – 0.97	µg/L	na	na	na	na	na	na
Benzyl alcohol	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
bis(2-chloroethoxy)methane	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
bis(2-chloroethyl)ether	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	0/39	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
Caffeine	3/39	8	0.052	0.083	0.027	0.047 – 0.049	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Criteria Chronic WQS	Acute WQS	Comparison to WQS Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Carbazole	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Coprostanol	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
Hexachlorobenzene	0/39	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Hexachlorobutadiene	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Hexachlorocyclopentadiene	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Hexachloroethane	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Isophorone	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Nitrobenzene	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
N-Nitrosodimethylamine	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
N-Nitroso-di-n-propylamine	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
N-Nitrosodiphenylamine	0/39	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Pentachlorophenol	0/39	0	nd	nd	0.12	0.24	µg/L	7.9	13	0	0	0	0
Phenol	0/39	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
Conventional parameters													
Total suspended solids	192/192	100	2.1	69.0	13	na	mg/L	na	na	na	na	na	na
Volatile suspended solids	131/132	99	0.62	5.5	2.1	0.50	mg/L	na	na	na	na	na	na
Total dissolved solids	192/192	100	1.2	69.5	19	na	mg/L	na	na	na	na	na	na
Ammonia (total as nitrogen)	148/192	77	0.02	0.553	0.05	0.02	mg/L	na	na	na	na	na	na
Chemical oxygen demand	6/6	100	50	690	240	na	mg/L	na	na	na	na	na	na
Dissolved oxygen-field	120/120	100	7.5	11.9	9.0	na	mg/L	na	na	na	na	na	na
Hardness	6/6	100	656	5,770	3,210	na	mg/L CaCO3	na	na	na	na	na	na
Nitrite + nitrate (total as nitrogen)	132/132	100	0.118	0.616	0.334	na	mg/L	na	na	na	na	na	na
pH	192/192	100	6.92	8.20	7.6	na	pH	na	na	na	na	na	na
Specific Conductance	191/191	100	9.90	57,700	25,800	na	umhos/cm	na	na	na	na	na	na
Temperature	196/196	100	5.5	16	9.2	na	°C	na	na	na	na	na	na
LTKE03													
Conventional parameters													
Total Organic Carbon (TOC)	24/24	100	1.49	3.49	2	na	mg/L	na	na	na	na	na	na
Total suspended solids	24/24	100	1.3 J	7.2	3	na	mg/L	na	na	na	na	na	na
Total Suspended Solids (0.45um)	22/22	100	1.8 J	12.6	4	na	mg/L	na	na	na	na	na	na
Total dissolved solids	22/22	100	12,800	32,100	26,000	na	mg/L	na	na	na	na	na	na
Dissolved Organic Carbon	24/24	100	1.33	3.78	2.1	na	mg/L	na	na	na	na	na	na
Dissolved oxygen-field	22/22	100	4.4 J	9.7 J	7	na	mg/L	na	na	na	na	na	na
Dissolved oxygen	34/34	100	5.8	9.6	8	na	mg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Criteria: Chronic WQS	Criteria: Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Comparison to WQS: Detect > Acute	Comparison to WQS: Nondetect > Chronic and ≤ Acute	Comparison to WQS: Nondetect > Acute
Salinity-field	22/22	100	12.855 J	30.574 J	25.780	na	PSS	na	na	na	na	na	na
Salinity	17/17	100	13.388	30.437	26.9	na	PSS	na	na	na	na	na	na
Temperature	24/24	100	8.2	15.8	10	na	°C	na	na	na	na	na	na
LTUM03													
Conventional parameters													
Total Organic Carbon (TOC)	24/24	100	1.79	6.2	2.8	na	mg/L	na	na	na	na	na	na
Total suspended solids	24/24	100	1.6 J	13.7	6	na	mg/L	na	na	na	na	na	na
Total Suspended Solids (0.45um)	22/22	100	2.4	16.7	7	na	mg/L	na	na	na	na	na	na
Total dissolved solids	22/22	100	1,100	31,300	10,000	na	mg/L	na	na	na	na	na	na
Dissolved Organic Carbon	24/24	100	1.67	7.72	3	na	mg/L	na	na	na	na	na	na
Dissolved oxygen-field	22/22	100	4.5 J	10.1 J	6	na	mg/L	na	na	na	na	na	na
Dissolved oxygen	34/34	100	5.4	10.4	8	na	mg/L	na	na	na	na	na	na
Salinity-field	22/22	100	1.8042 J	29.915 J	17.6	na	PSS	na	na	na	na	na	na
Salinity	13/13	100	5.8878	29.749	19.14	na	PSS	na	na	na	na	na	na
Temperature	24/24	100	4.9	15.5	11	na	°C	na	na	na	na	na	na
Norfolk													
Metals and trace elements													
Antimony (dissolved)	21/22	95	0.0095	0.025	0.017	0.010	µg/L	na	na	na	na	na	na
Antimony (total)	35/56	62	0.010	0.030	0.011	0.0096 – 0.011	µg/L	na	na	na	na	na	na
Arsenic (dissolved)	24/24	100	0.175	0.456	0.319	na	µg/L	36	69	0	0	0	0
Arsenic (total)	56/56	100	0.183	0.868	0.493	na	µg/L	na	na	na	na	na	na
Beryllium (dissolved)	0/24	0	nd	nd	0.0074	0.013 – 0.016	µg/L	na	na	na	na	na	na
Beryllium (total)	30/58	52	0.015	0.053	0.017	0.014 – 0.016	µg/L	na	na	na	na	na	na
Cadmium (dissolved)	12/22	55	0.0072	0.021	0.0086	0.0067 – 0.0073	µg/L	9.3	42	0	0	0	0
Cadmium (total)	49/56	88	0.0071	0.032	0.015	0.0068 – 0.0073	µg/L	na	na	na	na	na	na
Chromium (dissolved)	24/24	100	0.14 J	0.423 J	0.27	na	µg/L	50	1,100	0	0	0	0
Chromium (total)	58/58	100	0.256 J	2.37 J	0.978	na	µg/L	na	na	na	na	na	na
Cobalt (dissolved)	21/21	100	0.0330	0.130	0.0594	na	µg/L	na	na	na	na	na	na
Cobalt (total)	49/49	100	0.123	1.33	0.399	na	µg/L	na	na	na	na	na	na
Copper (dissolved)	23/24	96	0.496 J	1.34 J	0.805	0.628	µg/L	3.1	4.8	0	0	0	0
Copper (total)	58/58	100	0.728 J	4.24 J	2.09	na	µg/L	na	na	na	na	na	na
Lead (dissolved)	24/24	100	0.0611 J	0.343 J	0.149	na	µg/L	8.1	210	0	0	0	0
Lead (total)	58/58	100	0.143 J	2.81 J	0.778	na	µg/L	na	na	na	na	na	na
Mercury (dissolved)	6/6	100	0.00046	0.00071	0.00061	na	µg/L	0.025	1.8	0	0	0	0
Mercury (total)	6/8	75	0.00104	0.00689	0.027	0.20	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Criteria: Chronic WQS	Criteria: Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Comparison to WQS: Detect > Acute	Comparison to WQS: Nondetect > Chronic and ≤ Acute	Comparison to WQS: Nondetect > Acute
Nickel (dissolved)	21/21	100	0.190 J	0.472 J	0.308	na	µg/L	8.2	74	0	0	0	0
Nickel (total)	55/55	100	0.434 J	2.91 J	1.12	na	µg/L	na	na	na	na	na	na
Selenium (dissolved)	0/22	0	nd	nd	0.074	0.13 – 0.16	µg/L	na	na	na	na	na	na
Selenium (total)	0/54	0	nd	nd	0.075	0.14 – 0.16	µg/L	na	na	na	na	na	na
Silver (dissolved)	0/24	0	nd	nd	0.059	0.10 – 0.13	µg/L	nv	1.9	na	0	na	0
Silver (total)	0/58	0	nd	nd	0.060	0.11 – 0.13	µg/L	nv	1.9	na	0	na	0
Thallium (dissolved)	0/24	0	nd	nd	0.0025	0.0043 – 0.0052	µg/L	na	na	na	na	na	na
Thallium (total)	17/58	29	0.0049	0.012 J	0.0040	0.0046 – 0.0053	µg/L	na	na	na	na	na	na
Vanadium (dissolved)	18/18	100	0.141	0.400	0.282	na	µg/L	na	na	na	na	na	na
Vanadium (Total)	46/46	100	0.315	3.57	1.51	na	µg/L	na	na	na	na	na	na
Zinc (dissolved)	22/22	100	0.881 J	5.24 J	2.39	na	µg/L	81	90	0	0	0	0
Zinc (total)	56/56	100	0.979 J	9.04 J	4.18	na	µg/L	na	na	na	na	na	na
PAHs													
2-Chloronaphthalene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
2-Methylnaphthalene	0/13	0	nd	nd	0.20	0.38 – 0.45	µg/L	na	na	na	na	na	na
Acenaphthene	0/13	0	nd	nd	0.049	0.094 – 0.11	µg/L	na	na	na	na	na	na
Acenaphthylene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Anthracene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Benzo(a)anthracene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Benzo(a)pyrene	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Benzo(b)fluoranthene	0/13	0	nd	nd	0.20	0.38 – 0.45	µg/L	na	na	na	na	na	na
Benzo(g,h,i)perylene	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Benzo(k)fluoranthene	0/13	0	nd	nd	0.20	0.38 – 0.45	µg/L	na	na	na	na	na	na
Benzofluoranthenes (total-calc'd)	0/13	0	nd	nd	0.20	nc	µg/L	na	na	na	na	na	na
Chrysene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Dibenzo(a,h)anthracene	0/13	0	nd	nd	0.20	0.38 – 0.45	µg/L	na	na	na	na	na	na
Dibenzofuran	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Fluoranthene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Fluorene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Naphthalene	0/13	0	nd	nd	0.20	0.38 – 0.45	µg/L	na	na	na	na	na	na
Phenanthrene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Pyrene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Total HPAH	0/13	0	nd	nd	0.20	nc	µg/L	na	na	na	na	na	na
Total LPAH	0/13	0	nd	nd	0.20	nc	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Criteria: Chronic WQS	Criteria: Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Comparison to WQS: Detect > Acute	Comparison to WQS: Nondetect > Chronic and ≤ Acute	Comparison to WQS: Nondetect > Acute
Carcinogenic PAHs - Mammal	0/13	0	nd	nd	0.13	0.25 – 0.30	µg/L	na	na	na	na	na	na
Total PAH	0/13	0	nd	nd	0.20	nc	µg/L	na	na	na	na	na	na
Phthalates													
Bis(2-ethylhexyl)phthalate	4/13	31	0.14	0.253	0.18	0.15 – 0.859	µg/L	na	na	na	na	na	na
Butyl benzyl phthalate	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Diethyl phthalate	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Dimethyl phthalate	0/13	0	nd	nd	0.049	0.094 – 0.11	µg/L	na	na	na	na	na	na
Di-n-butyl phthalate	5/13	38	0.39	1.2	0.41	0.24 – 0.46	µg/L	na	na	na	na	na	na
Di-n-octyl phthalate	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Other SVOCs													
1,2,4-Trichlorobenzene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
1,2-Dichlorobenzene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
1,2-Diphenylhydrazine	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
1,3-Dichlorobenzene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
1,4-Dichlorobenzene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
2,4,5-Trichlorophenol	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
2,4,6-Trichlorophenol	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
2,4-Dichlorophenol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
2,4-Dimethylphenol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
2,4-Dinitrophenol	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
2,4-Dinitrotoluene	0/13	0	nd	nd	0.049	0.094 – 0.11	µg/L	na	na	na	na	na	na
2,6-Dinitrotoluene	0/13	0	nd	nd	0.049	0.094 – 0.11	µg/L	na	na	na	na	na	na
2-Chlorophenol	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
2-Methylphenol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
2-Nitroaniline	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
2-Nitrophenol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
3,3'-Dichlorobenzidine	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
3-Nitroaniline	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
4,6-Dinitro-o-cresol	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
4-Bromophenyl phenyl ether	0/13	0	nd	nd	0.049	0.094 – 0.11	µg/L	na	na	na	na	na	na
4-Chloro-3-methylphenol	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
4-Chloroaniline	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
4-Methylphenol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
4-Nitroaniline	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency		Concentration					Criteria		Comparison to WQS			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Chronic WQS	Acute WQS	Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
4-Nitrophenol	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
Aniline	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
Benzidine	0/13	0	nd	nd	2.9	5.7 – 6.7	µg/L	na	na	na	na	na	na
Benzoic acid	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
Benzyl alcohol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
bis(2-chloroethoxy)methane	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
bis(2-chloroethyl)ether	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	0/13	0	nd	nd	0.25	0.47 – 0.56	µg/L	na	na	na	na	na	na
Caffeine	0/13	0	nd	nd	0.025	0.047 – 0.056	µg/L	na	na	na	na	na	na
Carbazole	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Coprostanol	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
Hexachlorobenzene	0/13	0	nd	nd	0.073	0.14 – 0.17	µg/L	na	na	na	na	na	na
Hexachlorobutadiene	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Hexachlorocyclopentadiene	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Hexachloroethane	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Isophorone	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Nitrobenzene	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
N-Nitrosodimethylamine	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
N-Nitroso-di-n-propylamine	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
N-Nitrosodiphenylamine	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	na	na	na	na	na	na
Pentachlorophenol	0/13	0	nd	nd	0.12	0.24 – 0.28	µg/L	7.9	13	0	0	0	0
Phenol	0/13	0	nd	nd	0.49	0.94 – 1.1	µg/L	na	na	na	na	na	na
Conventional parameters													
Total suspended solids	66/66	100	3.5	70.2	24	na	mg/L	na	na	na	na	na	na
Volatile suspended solids	45/46	98	0.63	6.2	2.7	0.50	mg/L	na	na	na	na	na	na
Total dissolved solids	66/66	100	3.4	70.0	25	na	mg/L	na	na	na	na	na	na
Ammonia (total as nitrogen)	62/66	94	0.024	0.160	0.06	0.02	mg/L	na	na	na	na	na	na
Chemical oxygen demand	32/66	48	3.0	48	5.8	3.0	mg/L	na	na	na	na	na	na
Dissolved oxygen	46/46	100	9.0	12.2	11	na	mg/L	na	na	na	na	na	na
Hardness	66/66	100	19.0	316	56.4	na	mg/L $CaCO_3$	na	na	na	na	na	na
Nitrite + nitrate (total as nitrogen)	46/46	100	0.129	0.634	0.344	na	mg/L	na	na	na	na	na	na
pH	66/66	100	6.36	7.70	7.1	na	pH	na	na	na	na	na	na
Specific Conductance	68/68	100	27.5	3,200	344	na	umhos/cm	na	na	na	na	na	na
Temperature	70/70	100	4.3	17	8.8	na	°C	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Criteria Chronic WQS	Acute WQS	Comparison to WQS Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Southwest Michigan													
Metals and trace elements													
Antimony (dissolved)	65/66	98	0.010	0.103	0.048	0.010	µg/L	na	na	na	na	na	na
Antimony (total)	138/161	86	0.0098	0.113	0.032	0.0095 – 0.010	µg/L	na	na	na	na	na	na
Arsenic (dissolved)	72/72	100	0.224	1.42	0.806	na	µg/L	36	69	0	0	0	0
Arsenic (total)	167/167	100	0.282	1.57	0.880	na	µg/L	na	na	na	na	na	na
Beryllium (dissolved)	0/63	0	nd	nd	0.0075	0.012 – 0.016	µg/L	na	na	na	na	na	na
Beryllium (total)	35/158	22	0.015	0.037	0.011	0.013 – 0.016	µg/L	na	na	na	na	na	na
Cadmium (dissolved)	72/72	100	0.0079	0.0795	0.043	na	µg/L	9.3	42	0	0	0	0
Cadmium (total)	171/173	99	0.0076	0.391	0.043	0.0067 – 0.0068	µg/L	na	na	na	na	na	na
Chromium (dissolved)	56/56	100	0.10 J	0.453 J	0.30	na	µg/L	50	1,100	0	0	0	0
Chromium (total)	157/157	100	0.277 J	2.32 J	0.679	na	µg/L	na	na	na	na	na	na
Cobalt (dissolved)	72/72	100	0.019	0.163	0.060	na	µg/L	na	na	na	na	na	na
Cobalt (total)	155/155	100	0.0311	0.772	0.232	na	µg/L	na	na	na	na	na	na
Copper (dissolved)	64/66	97	0.370 J	1.89 J	0.663	0.354 – 0.368	µg/L	3.1	4.8	0	0	0	0
Copper (total)	166/167	99	0.474 J	4.03 J	1.48	0.643	µg/L	na	na	na	na	na	na
Lead (dissolved)	66/66	100	0.0077 J	0.198 J	0.043	na	µg/L	8.1	210	0	0	0	0
Lead (total)	167/167	100	0.0570 J	1.57 J	0.398	na	µg/L	na	na	na	na	na	na
Mercury (total)	0/6	0	nd	nd	0.10	0.20	µg/L	na	na	na	na	na	na
Nickel (dissolved)	54/60	90	0.259 J	1.50 J	0.385	0.118 – 0.306	µg/L	8.2	74	0	0	0	0
Nickel (total)	137/143	96	0.328 J	2.88 J	0.764	0.291 – 0.575	µg/L	na	na	na	na	na	na
Selenium (dissolved)	0/66	0	nd	nd	0.074	0.12 – 0.16	µg/L	na	na	na	na	na	na
Selenium (total)	0/155	0	nd	nd	0.074	0.13 – 0.16	µg/L	na	na	na	na	na	na
Silver (dissolved)	0/72	0	nd	nd	0.059	0.097 – 0.13	µg/L	nv	1.9	na	0	na	0
Silver (total)	0/173	0	nd	nd	0.060	0.10 – 0.13	µg/L	nv	1.9	na	0	na	0
Thallium (dissolved)	38/72	53	0.0079	0.011	0.0064	0.0046 – 0.0052	µg/L	na	na	na	na	na	na
Thallium (total)	102/173	59	0.0050	0.015	0.0065	0.0043 – 0.0052	µg/L	na	na	na	na	na	na
Vanadium (dissolved)	42/42	100	0.370	1.56	0.944	na	µg/L	na	na	na	na	na	na
Vanadium (Total)	125/125	100	0.220	3.99	1.35	na	µg/L	na	na	na	na	na	na
Zinc (dissolved)	72/72	100	0.825 J	4.09 J	1.88	na	µg/L	81	90	0	0	0	0
Zinc (total)	173/173	100	1.08 J	6.62 J	2.84	na	µg/L	na	na	na	na	na	na
PAHs													
2-Chloronaphthalene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
2-Methylnaphthalene	0/42	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Acenaphthene	0/42	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency		Concentration					Criteria		Comparison to WQS			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Chronic WQS	Acute WQS	Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Acenaphthylene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Anthracene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Benzo(a)anthracene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Benzo(a)pyrene	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Benzo(b)fluoranthene	0/42	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Benzo(g,h,i)perylene	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Benzo(k)fluoranthene	0/42	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Benzofluoranthenes (total-calc'd)	0/42	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Chrysene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Dibenzo(a,h)anthracene	0/42	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Dibenzofuran	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Fluoranthene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Fluorene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Naphthalene	0/42	0	nd	nd	0.19	0.38 – 0.39	µg/L	na	na	na	na	na	na
Phenanthrene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Pyrene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Total HPAH	0/42	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Total LPAH	0/42	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Carcinogenic PAHs - Mammal	0/42	0	nd	nd	0.13	0.25 – 0.26	µg/L	na	na	na	na	na	na
Total PAH	0/42	0	nd	nd	0.19	nc	µg/L	na	na	na	na	na	na
Phthalates													
Bis(2-ethylhexyl)phthalate	8/42	19	0.302	23.8	0.86	0.14 – 0.667	µg/L	na	na	na	na	na	na
Butyl benzyl phthalate	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Diethyl phthalate	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Dimethyl phthalate	0/42	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
Di-n-butyl phthalate	2/42	5	0.27	0.483	0.13	0.24	µg/L	na	na	na	na	na	na
Di-n-octyl phthalate	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Other SVOCs													
1,2,4-Trichlorobenzene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
1,2-Dichlorobenzene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
1,2-Diphenylhydrazine	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
1,3-Dichlorobenzene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
1,4-Dichlorobenzene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
2,4,5-Trichlorophenol	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency: Ratio	%	Concentration: Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Criteria: Chronic WQS	Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
2,4,6-Trichlorophenol	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
2,4-Dichlorophenol	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
2,4-Dimethylphenol	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
2,4-Dinitrophenol	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
2,4-Dinitrotoluene	0/42	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
2,6-Dinitrotoluene	0/42	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
2-Chlorophenol	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
2-Methylphenol	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
2-Nitroaniline	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
2-Nitrophenol	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
3,3'-Dichlorobenzidine	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
3-Nitroaniline	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
4,6-Dinitro-o-cresol	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
4-Bromophenyl phenyl ether	0/42	0	nd	nd	0.047	0.094 – 0.097	µg/L	na	na	na	na	na	na
4-Chloro-3-methylphenol	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
4-Chloroaniline	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
4-Methylphenol	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
4-Nitroaniline	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
4-Nitrophenol	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
Aniline	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
Benzidine	0/42	0	nd	nd	2.9	5.7 – 5.8	µg/L	na	na	na	na	na	na
Benzoic acid	3/42	7	1.1	1.5	0.53	0.94 – 0.97	µg/L	na	na	na	na	na	na
Benzyl alcohol	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
bis(2-chloroethoxy)methane	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
bis(2-chloroethyl)ether	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	0/42	0	nd	nd	0.24	0.47 – 0.49	µg/L	na	na	na	na	na	na
Caffeine	0/42	0	nd	nd	0.024	0.047 – 0.049	µg/L	na	na	na	na	na	na
Carbazole	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Coprostanol	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
Hexachlorobenzene	0/42	0	nd	nd	0.070	0.14 – 0.15	µg/L	na	na	na	na	na	na
Hexachlorobutadiene	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Hexachlorocyclopentadiene	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Hexachloroethane	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Isophorone	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na

Table E.6.4-1, cont. Summary statistics for surface water

Location ID and Chemical	Detection Frequency		Concentration					Criteria		Comparison to WQS			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Chronic WQS	Acute WQS	Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Nitrobenzene	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
N-Nitrosodimethylamine	0/42	0	nd	nd	0.47	0.94 – 0.97	µg/L	na	na	na	na	na	na
N-Nitroso-di-n-propylamine	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
N-Nitrosodiphenylamine	0/42	0	nd	nd	0.12	0.24	µg/L	na	na	na	na	na	na
Pentachlorophenol	0/42	0	nd	nd	0.12	0.24	µg/L	7.9	13	0	0	0	0
Phenol	1/42	2	2.01	2.01	0.51	0.94 – 0.97	µg/L	na	na	na	na	na	na
Conventional parameters													
Total suspended solids	192/192	100	2.2	59.8	15	na	mg/L	na	na	na	na	na	na
Volatile suspended solids	132/132	100	0.54	7.3	2.3	na	mg/L	na	na	na	na	na	na
Total dissolved solids	192/192	100	3.0	64.0	20	na	mg/L	na	na	na	na	na	na
Ammonia (total as nitrogen)	165/192	86	0.02	0.136	0.05	0.02	mg/L	na	na	na	na	na	na
Chemical oxygen demand	6/6	100	76	790	330	na	mg/L	na	na	na	na	na	na
Dissolved oxygen-field	120/120	100	7.2	12.0	9.0	na	mg/L	na	na	na	na	na	na
Hardness	6/6	100	292	5,190	3,280	na	mg/L $CaCO_3$	na	na	na	na	na	na
Nitrite + nitrate (total as nitrogen)	132/132	100	0.127	0.625	0.329	na	mg/L	na	na	na	na	na	na
pH	192/192	100	7.08	8.10	7.6	na	pH	na	na	na	na	na	na
Specific Conductance	186/186	100	5.27	56,700	20,800	na	µmhos/cm	na	na	na	na	na	na
Temperature	192/192	100	5.2	13	8.9	na	°C	na	na	na	na	na	na

Table E.6.4-2. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-001	4/16	25	1.03	2.05	1.07	1.37 – 2.86	pg/L
PCB-002	2/16	13	1.10	1.47	0.785	0.728 – 2.47	pg/L
PCB-003	1/16	6	2.66	2.66	1.25	0.930 – 3.71	pg/L
PCB-004	6/16	38	3.13	28.7	7.39	2.88 – 21.2	pg/L
PCB-005	0/16	0	nd	nd	nd	1.11 – 4.21	pg/L
PCB-006	1/16	6	1.22	1.22	1.31	1.13 – 4.70	pg/L
PCB-007	1/16	6	4.82	4.82	2.18	2.49 – 9.51	pg/L
PCB-008	1/16	6	6.51	6.51	3.33	2.35 – 16.2	pg/L
PCB-009	0/16	0	nd	nd	nd	0.983 – 3.80	pg/L
PCB-010	0/16	0	nd	nd	nd	1.01 – 3.80	pg/L
PCB-011	1/16	6	9.32	9.32	3.19	1.65 – 14.4	pg/L
PCB-012	0/16	0	nd	nd	nd	1.12 – 4.12	pg/L
PCB-013	0/16	0	C12	C12	nc	na	pg/L
PCB-014	0/16	0	nd	nd	nd	1.07 – 3.90	pg/L
PCB-015	1/16	6	9.81	9.81	3.66	1.93 – 15.9	pg/L
PCB-016	7/16	44	2.82	16.2	6.26	1.18 – 11.9	pg/L
PCB-017	8/16	50	3.03	24.6	8.85	1.22 – 13.7	pg/L
PCB-018	8/16	50	27.3 C	48.6 C	19.6	3.32 – 16.8	pg/L
PCB-019	14/16	88	1.04	16.7	7.20	0.666 – 2.72	pg/L
PCB-020	8/16	50	31.5 C	74.0 C	26.8	3.94 – 21.2	pg/L
PCB-021	2/16	13	17.2 C	22.0 C	5.09	2.01 – 13.9	pg/L
PCB-022	5/16	31	11.3	18.5	6.21	1.43 – 10.4	pg/L
PCB-023	0/16	0	nd	nd	nd	0.464 – 1.05	pg/L
PCB-024	3/16	19	0.493	0.844	0.328	0.466 – 0.729	pg/L
PCB-025	13/16	81	1.17	17.4	5.18	0.495 – 1.34	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-026	12/16	75	0.747 C	39.4 C	11.0	1.75 – 6.0	pg/L
PCB-027	11/16	69	1.23	10.3	4.53	0.495 – 5.22	pg/L
PCB-028	8/16	50	C20	C20	nc	na	pg/L
PCB-029	12/16	75	C26	C26	nc	na	pg/L
PCB-030	8/16	50	C18	C18	nc	na	pg/L
PCB-031	8/16	50	25.2	55.3	19.9	3.37 – 12.8	pg/L
PCB-032	8/16	50	10.2	20.0	7.71	0.624 – 5.90	pg/L
PCB-033	2/16	13	C21	C21	nc	na	pg/L
PCB-034	2/16	13	0.548	0.841	0.349	0.464 – 1.04	pg/L
PCB-035	1/16	6	1.29	1.29	0.392	0.464 – 1.15	pg/L
PCB-036	0/16	0	nd	nd	nd	0.464 – 1.03	pg/L
PCB-037	4/16	25	8.38	14.4	4.71	1.69 – 8.17	pg/L
PCB-038	0/16	0	nd	nd	nd	0.464 – 1.04	pg/L
PCB-039	1/16	6	0.554	0.554	0.305	0.464 – 0.999	pg/L
PCB-040	11/16	69	1.76 C	44.9 C	17.3	8.08 – 14.0	pg/L
PCB-041	11/16	69	C40	C40	nc	na	pg/L
PCB-042	13/16	81	0.994	24.2	8.80	3.10 – 8.15	pg/L
PCB-043	3/16	19	0.726	2.53	0.741	0.469 – 3.07	pg/L
PCB-044	8/16	50	40.0 C	93.4 C	33.6	4.23 – 22.1	pg/L
PCB-045	9/16	56	3.43 C	18.1 C	7.61	0.807 – 8.21	pg/L
PCB-046	9/16	56	2.80	6.48	2.65	0.489 – 4.03	pg/L
PCB-047	8/16	50	C44	C44	nc	na	pg/L
PCB-048	10/16	63	1.34	11.7	4.71	0.737 – 6.49	pg/L
PCB-049	9/16	56	17.3 C	82.4 C	26.7	2.81 – 16.5	pg/L
PCB-050	8/16	50	9.29 C	19.9 C	8.18	0.807 – 10.5	pg/L
PCB-051	9/16	56	C45	C45	nc	na	pg/L
PCB-052	8/16	50	55.9	166	51.7	7.96 – 39.2	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-053	8/16	50	C50	C50	nc	na	pg/L
PCB-054	2/16	13	0.596	0.989	0.333	0.441 – 1.25	pg/L
PCB-055	4/16	25	1.04	3.05	0.724	0.469 – 1.72	pg/L
PCB-056	9/16	56	7.16	32.9	11.8	2.13 – 9.51	pg/L
PCB-057	2/16	13	0.533	0.811	0.397	0.464 – 1.49	pg/L
PCB-058	0/16	0	nd	nd	nd	0.464 – 1.56	pg/L
PCB-059	8/16	50	1.85 C	9.76 C	3.03	0.495 – 5.99	pg/L
PCB-060	13/16	81	0.864	12.5	4.77	1.72 – 4.53	pg/L
PCB-061	8/16	50	39.3 C	109 C	38.2	9.19 – 22.7	pg/L
PCB-062	8/16	50	C59	C59	nc	na	pg/L
PCB-063	6/16	38	0.743	2.53	0.888	0.469 – 1.82	pg/L
PCB-064	8/16	50	12.7	29.2	10.9	1.66 – 9.72	pg/L
PCB-065	8/16	50	C44	C44	nc	na	pg/L
PCB-066	11/16	69	13.2	71.8	25.2	3.60 – 13.4	pg/L
PCB-067	5/16	31	1.14	1.88	0.774	0.489 – 2.46	pg/L
PCB-068	7/16	44	0.750	2.68	1.07	0.491 – 1.39	pg/L
PCB-069	9/16	56	C49	C49	nc	na	pg/L
PCB-070	8/16	50	C61	C61	nc	na	pg/L
PCB-071	11/16	69	C40	C40	nc	na	pg/L
PCB-072	5/16	31	0.583	2.89	0.713	0.469 – 1.44	pg/L
PCB-073	2/16	13	0.683	0.823	0.317	0.464 – 0.896	pg/L
PCB-074	8/16	50	C61	C61	nc	na	pg/L
PCB-075	8/16	50	C59	C59	nc	na	pg/L
PCB-076	8/16	50	C61	C61	nc	na	pg/L
PCB-077	9/16	56	2.19	5.30	2.40	0.912 – 3.09	pg/L
PCB-078	0/16	0	nd	nd	nd	0.464 – 1.67	pg/L
PCB-079	5/16	31	0.510	1.80	0.575	0.489 – 1.38	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-080	0/16	0	nd	nd	nd	0.464 – 1.45	pg/L
PCB-081	1/16	6	0.884	0.884	0.393	0.464 – 1.67	pg/L
PCB-082	11/15	73	2.09	14.9	5.70	0.495 – 6.79	pg/L
PCB-083	15/15	100	5.96 C	84.2 C	35.0	na	pg/L
PCB-084	14/15	93	3.51	43.3	17.6	2.40	pg/L
PCB-085	8/15	53	6.78 C	20.9 C	7.27	1.84 – 9.49	pg/L
PCB-086	11/15	73	20.4 C	85.1 C	34.1	9.15 – 17.0	pg/L
PCB-087	11/15	73	C86	C86	nc	na	pg/L
PCB-088	12/15	80	2.10 C	25.5 C	9.48	1.34 – 13.7	pg/L
PCB-089	5/15	33	0.529	1.27	0.570	0.466 – 3.13	pg/L
PCB-090	14/15	93	13.9 C	147 C	55.3	11.8	pg/L
PCB-091	12/15	80	C88	C88	nc	na	pg/L
PCB-092	12/15	80	2.16	33.0	11.6	4.91 – 10.7	pg/L
PCB-093	14/15	93	13.6 C	149 C	62.3	8.25	pg/L
PCB-094	0/15	0	nd	nd	nd	0.467 – 3.09	pg/L
PCB-095	14/15	93	C93	C93	nc	na	pg/L
PCB-096	4/15	27	0.515	0.788	0.386	0.466 – 1.36	pg/L
PCB-097	11/15	73	C86	C86	nc	na	pg/L
PCB-098	14/15	93	C93	C93	nc	na	pg/L
PCB-099	15/15	100	C83	C83	nc	na	pg/L
PCB-100	14/15	93	C93	C93	nc	na	pg/L
PCB-101	14/15	93	C90	C90	nc	na	pg/L
PCB-102	14/15	93	C93	C93	nc	na	pg/L
PCB-103	5/15	33	1.16	2.75	0.850	0.466 – 1.47	pg/L
PCB-104	0/15	0	nd	nd	nd	0.450 – 2.36	pg/L
PCB-105	8/15	53	13.3	33.4	12.9	3.74 – 14.0	pg/L
PCB-106	0/15	0	nd	nd	nd	0.466 – 3.77	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-107	9/15	60	0.682 C	4.71 C	1.40	0.489 – 2.50	pg/L
PCB-108	11/15	73	C86	C86	nc	na	pg/L
PCB-109	7/15	47	1.14	10.3	2.75	0.489 – 5.11	pg/L
PCB-110	13/15	87	26.4 C	166 C	64.4	13.3 – 14.9	pg/L
PCB-111	0/15	0	nd	nd	nd	0.464 – 2.08	pg/L
PCB-112	1/15	7	0.856	0.856	0.353	0.464 – 2.11	pg/L
PCB-113	14/15	93	C90	C90	nc	na	pg/L
PCB-114	5/15	33	0.614	4.10	0.832	0.466 – 1.22	pg/L
PCB-115	13/15	87	C110	C110	nc	na	pg/L
PCB-116	8/15	53	C85	C85	nc	na	pg/L
PCB-117	8/15	53	C85	C85	nc	na	pg/L
PCB-118	13/15	87	17.6	96.4	40.6	9.92 – 10.2	pg/L
PCB-119	11/15	73	C86	C86	nc	na	pg/L
PCB-120	0/15	0	nd	nd	nd	0.464 – 2.04	pg/L
PCB-121	0/15	0	nd	nd	nd	0.464 – 2.09	pg/L
PCB-122	2/15	13	0.658	0.972	0.513	0.466 – 4.15	pg/L
PCB-123	2/15	13	0.978	1.51	0.611	0.473 – 3.94	pg/L
PCB-124	9/15	60	C107	C107	nc	na	pg/L
PCB-125	11/15	73	C86	C86	nc	na	pg/L
PCB-126	0/15	0	nd	nd	nd	0.466 – 3.94	pg/L
PCB-127	0/15	0	nd	nd	nd	0.466 – 3.71	pg/L
PCB-128	14/15	93	1.95 C	20.9 C	8.76	9.56	pg/L
PCB-129	15/15	100	13.8 C	156 C	67.0	na	pg/L
PCB-130	10/15	67	1.27	10.1	3.58	1.06 – 4.98	pg/L
PCB-131	3/15	20	0.888	1.80	0.507	0.466 – 1.26	pg/L
PCB-132	15/15	100	4.38	49.3	22.3	na	pg/L
PCB-133	4/15	27	1.05	3.37	0.859	0.467 – 1.72	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-134	11/15	73	1.18 C	8.97 C	3.38	0.773 – 3.95	pg/L
PCB-135	14/15	93	7.16 C	58.2 C	25.2	4.28	pg/L
PCB-136	14/15	93	2.37	20.2	9.09	1.52	pg/L
PCB-137	9/15	60	1.30	5.67	2.29	0.549 – 3.13	pg/L
PCB-138	15/15	100	C129	C129	nc	na	pg/L
PCB-139	6/15	40	0.769 C	2.15 C	0.874	0.489 – 1.71	pg/L
PCB-140	6/15	40	C139	C139	nc	na	pg/L
PCB-141	13/15	87	2.74	26.5	10.8	2.65 – 5.88	pg/L
PCB-142	0/15	0	nd	nd	nd	0.464 – 0.700	pg/L
PCB-143	11/15	73	C134	C134	nc	na	pg/L
PCB-144	8/15	53	0.723	6.60	2.42	0.751 – 5.03	pg/L
PCB-145	0/15	0	nd	nd	nd	0.164 – 0.499	pg/L
PCB-146	13/15	87	1.80	27.3	9.58	7.75 – 14.7	pg/L
PCB-147	15/15	100	9.43 C	126 C	58.0	na	pg/L
PCB-148	0/15	0	nd	nd	nd	0.212 – 0.499	pg/L
PCB-149	15/15	100	C147	C147	nc	na	pg/L
PCB-150	1/15	7	0.556	0.556	0.251	0.168 – 0.499	pg/L
PCB-151	14/15	93	C135	C135	nc	na	pg/L
PCB-152	0/15	0	nd	nd	nd	0.116 – 0.499	pg/L
PCB-153	15/15	100	10.6 C	135 C	57.8	na	pg/L
PCB-154	14/15	93	C135	C135	nc	na	pg/L
PCB-155	0/15	0	nd	nd	nd	0.343 – 0.499	pg/L
PCB-156	4/15	27	7.68 C	14.5 C	4.32	1.79 – 7.19	pg/L
PCB-157	4/15	27	C156	C156	nc	na	pg/L
PCB-158	12/15	80	2.03	15.0	5.48	1.19 – 6.71	pg/L
PCB-159	3/15	20	1.89	2.43	0.703	0.466 – 1.19	pg/L
PCB-160	15/15	100	C129	C129	nc	na	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-161	0/15	0	nd	nd	nd	0.463 – 0.533	pg/L
PCB-162	0/15	0	nd	nd	nd	0.464 – 0.516	pg/L
PCB-163	15/15	100	C129	C129	nc	na	pg/L
PCB-164	11/15	73	1.47	11.5	4.35	1.07 – 6.08	pg/L
PCB-165	0/15	0	nd	nd	nd	0.464 – 0.519	pg/L
PCB-166	14/15	93	C128	C128	nc	na	pg/L
PCB-167	8/15	53	2.33	5.11	1.96	0.639 – 2.18	pg/L
PCB-168	15/15	100	C153	C153	nc	na	pg/L
PCB-169	0/15	0	nd	nd	nd	0.460 – 0.516	pg/L
PCB-170	11/15	73	11.1	33.7	14.2	3.28 – 7.35	pg/L
PCB-171	10/15	67	2.10 C	11.8 C	4.44	1.13 – 5.42	pg/L
PCB-172	10/15	67	1.22	7.21	2.42	0.495 – 3.84	pg/L
PCB-173	10/15	67	C171	C171	nc	na	pg/L
PCB-174	14/15	93	4.59	37.8	16.9	2.84	pg/L
PCB-175	2/15	13	0.508	0.758	0.422	0.489 – 1.80	pg/L
PCB-176	9/15	60	0.694	4.55	1.77	0.495 – 3.14	pg/L
PCB-177	12/15	80	3.22	27.9	9.90	1.71 – 9.30	pg/L
PCB-178	13/15	87	0.944	8.71	3.46	0.824 – 1.42	pg/L
PCB-179	13/15	87	2.35	16.6	7.16	1.23 – 2.68	pg/L
PCB-180	12/15	80	6.15 C	75.3 C	29.5	0.467 – 12.8	pg/L
PCB-181	0/15	0	nd	nd	nd	0.165 – 0.516	pg/L
PCB-182	1/15	7	0.517	0.517	0.259	0.445 – 0.516	pg/L
PCB-183	15/15	100	1.51 C	26.3 C	11.6	na	pg/L
PCB-184	0/15	0	nd	nd	nd	0.109 – 0.499	pg/L
PCB-185	15/15	100	C183	C183	nc	na	pg/L
PCB-186	0/15	0	nd	nd	nd	0.117 – 0.499	pg/L
PCB-187	14/15	93	4.19	50.2	21.3	8.19	pg/L

Table E.6.4-2, cont. Summary statistics for PCB congeners in surface water collected from RM 0.0 and 3.3

Chemical	Detection Frequency		Concentration				
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit
PCB-188	0/15	0	nd	nd	nd	0.248 – 0.499	pg/L
PCB-189	4/15	27	0.701	1.35	0.478	0.466 – 0.838	pg/L
PCB-190	12/15	80	1.10	6.79	2.86	0.592 – 3.24	pg/L
PCB-191	5/15	33	0.554	1.43	0.476	0.480 – 0.679	pg/L
PCB-192	0/15	0	nd	nd	nd	0.135 – 0.499	pg/L
PCB-193	12/15	80	C180	C180	nc	na	pg/L
PCB-194	11/16	69	2.44	14.7	6.22	1.42 – 6.99	pg/L
PCB-195	9/16	56	1.20	10.0	2.90	0.495 – 3.09	pg/L
PCB-196	11/16	69	0.994	7.54	3.03	0.785 – 4.38	pg/L
PCB-197	9/16	56	0.638 C	5.37 C	1.30	0.489 – 1.35	pg/L
PCB-198	9/16	56	5.49 C	18.2 C	7.13	1.61 – 7.73	pg/L
PCB-199	9/16	56	C198	C198	nc	na	pg/L
PCB-200	9/16	56	C197	C197	nc	na	pg/L
PCB-201	8/16	50	0.696	3.51	0.942	0.489 – 1.17	pg/L
PCB-202	5/16	31	1.59	5.51	1.43	0.590 – 4.01	pg/L
PCB-203	15/16	94	1.51	10.6	4.43	2.16	pg/L
PCB-204	0/16	0	nd	nd	nd	0.190 – 0.499	pg/L
PCB-205	4/16	25	0.612	0.971	0.382	0.429 – 0.821	pg/L
PCB-206	5/15	33	2.73	6.57	2.30	0.874 – 4.59	pg/L
PCB-207	1/15	7	0.666	0.666	0.519	0.467 – 1.76	pg/L
PCB-208	2/15	13	2.24	2.29	0.844	0.495 – 2.14	pg/L
PCB-209	0/15	0	nd	nd	nd	1.12 – 7.49	pg/L
PCB congeners (total calc'd)	15/15	100	69.6	3,144	1,170	na	pg/L
PCB TEQ - Bird	13/15	87	0.0836	0.557	0.205	0.0723 – 0.0831	pg/L
PCB TEQ - Fish	13/15	87	0.00157	0.0116	0.00275	0.00145 – 0.00148	pg/L
PCB TEQ - Mammal	13/15	87	0.0321	0.210	0.0487	0.0322 – 0.0326	pg/L

E.6.5 Seeps

Table E.6.5-1. Summary statistics for Boeing Plant 2 seep data

Analyte	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Metals and trace elements											
Aluminum (dissolved)	0/10	0	nd	nd	30	20 – 100	µg/L	na	na	na	na
Aluminum (total)	17/17	100	140	18,900	4,000	na	µg/L	SE-31003	na	na	na
Antimony (dissolved)	0/10	0	nd	nd	10	20	µg/L	na	na	na	na
Antimony (total)	1/17	6	6	6	6	2 – 20	µg/L	SE-SWY02	na	na	na
Arsenic (dissolved)	10/10	100	6	10	9	na	µg/L	SE-61006 SE-11001 SE-31003	69	0	0
Arsenic (total)	16/17	94	2	20	9	5	µg/L	SE-31003 SE-SWY01	na	na	na
Barium (dissolved)	1/10	10	71	71	20	10 – 37	µg/L	SE-31003	na	na	na
Barium (total)	17/17	100	6	132	30	na	µg/L	SE-31003	na	na	na
Beryllium (dissolved)	0/10	0	nd	nd	2	1 – 5	µg/L	na	na	na	na
Beryllium (total)	0/17	0	nd	nd	1	1 – 5	µg/L	na	na	na	na
Cadmium (dissolved)	0/10	0	nd	nd	3	2 – 10	µg/L	na	42	0	0
Cadmium (total)	0/17	0	nd	nd	3	2 – 10	µg/L	na	na	na	na
Calcium (dissolved)	10/10	100	129,000	257,000	200,000	na	µg/L	SE-21002	na	na	na
Calcium (total)	17/17	100	23,900	263,000	100,000	na	µg/L	SE-21002	na	na	na
Chromium (dissolved)	0/10	0	nd	nd	7	5 – 20	µg/L	na	1,100	0	0
Chromium (total)	6/17	35	6	49	10	5 – 20	µg/L	SE-SWY03	na	na	na
Cobalt (dissolved)	0/10	0	nd	nd	6	3 – 20	µg/L	na	na	na	na
Cobalt (total)	3/17	18	3	4	5	3 – 20	µg/L	SE-SWY03 SE-SWY01	na	na	na
Copper (dissolved)	1/10	10	8	8	4	2 – 10	µg/L	SE-94105	4.8	1	5
Copper (total)	11/17	65	2	60	20	2 – 10	µg/L	SE-SWY03	na	na	na
Iron (dissolved)	2/10	20	1,630	2,360	400	10 – 50	µg/L	SE-31003	na	na	na
Iron (total)	17/17	100	480	26,400	6	na	µg/L	SE-31003	na	na	na
Lead (dissolved)	0/10	0	nd	nd	5	1 – 20	µg/L	na	210	0	0
Lead (total)	14/17	82	1	104	20	20	µg/L	SE-SWY02	na	na	na
Magnesium (dissolved)	10/10	100	390,000	783,000	500,000	na	µg/L	SE-21002	na	na	na

Table E.6.5-1, cont. Summary statistics for Boeing Plant 2 seep data

Analyte	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS[a] Detect > Acute	Nondetect > Acute
Magnesium (total)	17/17	100	19,500	805,000	400,000	na	µg/L	SE-21002	na	na	na
Manganese (dissolved)	10/10	100	12	262	160	na	µg/L	SE-31003	na	na	na
Manganese (total)	17/17	100	14	639	230	na	µg/L	SE-SWY07	na	na	na
Mercury (dissolved)	0/10	0	nd	nd	0.050	0.100	µg/L	na	1.8	0	0
Mercury (total)	3/17	18	0.20	0.20	0.076	0.1	µg/L	SE-31003 SE-SWY03 SE-SWY01	na	na	na
Nickel (dissolved)	0/10	0	nd	nd	20	10 – 50	µg/L	na	74	0	0
Nickel (total)	4/17	24	10	50	20	10 – 50	µg/L	SE-SWY04	na	na	na
Potassium (dissolved)	10/10	100	140,000	238,000	180,000	na	µg/L	SE-21002	na	na	na
Potassium (total)	17/17	100	8,200	246,000	130,000	na	µg/L	SE-21002	na	na	na
Selenium (dissolved)	4/10	40	50	120	90	50 – 200	µg/L	SE-11001	na	na	na
Selenium (total)	8/17	47	60	300	90	50 – 200	µg/L	SE-31003 SE-11001	na	na	na
Silver (dissolved)	0/10	0	nd	nd	6	3 – 20	µg/L	na	1.9	0	10
Silver (total)	0/17	0	nd	nd	5	3 – 20	µg/L	na	1.9	0	17
Sodium (dissolved)	10/10	100	3,260,000	6,280,000	4,500,000	na	µg/L	SE-21002	na	na	na
Sodium (total)	17/17	100	152,000	6,440,000	3,400,000	na	µg/L	SE-21002	na	na	na
Thallium (dissolved)	2/10	20	50	70	70	50 – 20	µg/L	SE-94105	na	na	na
Thallium (total)	5/17	29	50	300	70	50 – 20	µg/L	SE-11001	na	na	na
Vanadium (dissolved)	2/10	20	2	4	3	2 – 10	µg/L	SE-11001	na	na	na
Vanadium (total)	15/17	88	2	50	20	2 – 10	µg/L	SE-31003	na	na	na
Zinc (dissolved)	3/10	30	30	90	20	4 – 20	µg/L	SE-SWY04	90	0	0
Zinc (total)	14/17	82	6	200	50	20	µg/L	SE-SWY04	na	na	na
PAHs											
2-Chloronaphthalene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
2-Methylnaphthalene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Acenaphthene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Acenaphthylene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Anthracene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Benzo(a)anthracene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Benzo(a)pyrene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Benzo(b)fluoranthene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Benzo(g,h,i)perylene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Benzo(k)fluoranthene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na

Table E.6.5-1, cont. Summary statistics for Boeing Plant 2 seep data

Analyte	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Total benzofluoranthenes	0/17	0	nd	nd	0.50	nc	µg/L	na	na	na	na
Chrysene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Dibenzo(a,h)anthracene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Dibenzofuran	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Fluoranthene	1/17	6	1.3	1.3	0.55	1	µg/L	SE-84102	na	na	na
Fluorene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Indeno(1,2,3-cd)pyrene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Naphthalene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Phenanthrene	1/17	6	1.0	1.0	0.53	1	µg/L	SE-84102	na	na	na
Pyrene	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Total HPAH	1/17	6	1.3	1.3	0.55	nc	µg/L	SE-84102	na	na	na
Total LPAH	1/17	6	1.0	1.0	0.53	nc	µg/L	SE-84102	na	na	na
Carcinogenic PAHs - Mammal	0/17	0	nd	nd	0.46	0.91	µg/L	na	na	na	na
Total PAH	1/17	6	2.3	2.3	0.61	nc	µg/L	SE-84102	na	na	na
Phthalates											
Bis(2-ethylhexyl)phthalate	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Butyl benzyl phthalate	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Diethyl phthalate	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Dimethyl phthalate	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Di-n-butyl phthalate	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Di-n-octyl phthalate	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Other SVOCs											
1,2,4-Trichlorobenzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,2-Dichlorobenzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,3-Dichlorobenzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,4-Dichlorobenzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
2,4,5-Trichlorophenol	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
2,4,6-Trichlorophenol	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
2,4-Dichlorophenol	0/9	0	nd	nd	1.5	3	µg/L	na	na	na	na
2,4-Dimethylphenol	0/9	0	nd	nd	1.5	3	µg/L	na	na	na	na
2,4-Dinitrophenol	0/9	0	nd	nd	5.0	10	µg/L	na	na	na	na
2,4-Dinitrotoluene	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
2,6-Dinitrotoluene	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
2-Chlorophenol	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
2-Methylphenol	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na

Table E.6.5-1, cont. Summary statistics for Boeing Plant 2 seep data

Analyte	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
2-Nitroaniline	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
2-Nitrophenol	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
3,3'-Dichlorobenzidine	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
3-Nitroaniline	0/9	0	nd	nd	3.0	6	µg/L	na	na	na	na
4,6-Dinitro-o-cresol	0/9	0	nd	nd	5.0	10	µg/L	na	na	na	na
4-Bromophenyl phenyl ether	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
4-Chloro-3-methylphenol	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na
4-Chloroaniline	0/9	0	nd	nd	1.5	3	µg/L	na	na	na	na
4-Chlorophenyl phenyl ether	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
4-Methylphenol	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
4-Nitroaniline	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
4-Nitrophenol	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
Benzoic acid	0/9	0	nd	nd	5.0	10	µg/L	na	na	na	na
Benzyl alcohol	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
bis(2-chloroethoxy)methane	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
bis(2-chloroethyl)ether	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na
bis(2-chloroisopropyl)ether	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Carbazole	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Hexachlorobenzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Hexachlorobutadiene	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na
Hexachlorocyclopentadiene	0/9	0	nd	nd	2.5	5	µg/L	na	na	na	na
Hexachloroethane	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na
Isophorone	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Methyl isobutyl ketone	0/18	0	nd	nd	2.5	5	µg/L	na	na	na	na
Nitrobenzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
N-Nitroso-di-n-propylamine	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na
N-Nitrosodiphenylamine	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na
Pentachlorophenol	0/9	0	nd	nd	2.5	5	µg/L	na	13	0	0
Phenol	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na
Polychlorinated biphenyls											
Aroclor-1016	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Aroclor-1242	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Aroclor-1248	0/17	0	nd	nd	0.50	1	µg/L	na	na	na	na
Aroclor-1254	1/17	6	0.93 J	0.93 J	0.54	1 – 1.5	µg/L	SW-SWY01	na	na	na
Aroclor-1260	3/17	18	1.7 J	4.6	0.89	1	µg/L	SE-SWY03	na	na	na

Table E.6.5-1, cont. Summary statistics for Boeing Plant 2 seep data

Analyte	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS[a]: Detect > Acute	Comparison to Acute WQS[a]: Nondetect > Acute
Aroclor-1262	0/1	0	nd	nd	0.60	1.2	µg/L	na	na	na	na
PCBs (total calc'd)	4/17	24	0.93 J	4.6	0.91	nc	µg/L	SE-SWY03	10	0	0
Conventional parameters											
Total suspended solids	17/17	100	15	190	80	na	mg/L	SE-31003	na	na	na
Total dissolved solids	17/17	100	590	20,000	10,000	na	mg/L	SE-21002	na	na	na
Alkalinity	17/17	100	67	180	120	na	mg/L $CaCO_3$	SE-SWY07	na	na	na
Bicarbonate	8/8	100	62	200	110	na	mg/L $CaCO_3$	SE-SWY01	na	na	na
Carbonate	0/8	0	nd	nd	0.5	1	mg/L $CaCO_3$	na	na	na	na
Hardness	17/17	100	140	4,000	2,000	na	mg/L $CaCO_3$	SE-21002	na	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,1,2,2-Tetrachloroethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,1,2-Trichloroethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,1,2-Trichlorotrifluoroethane	0/18	0	nd	nd	1.0	2	µg/L	na	na	na	na
1,1-Dichloroethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,1-Dichloroethene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,2-Dichloroethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
1,2-Dichloropropane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
2-Chloroethyl vinyl ether	0/18	0	nd	nd	2.5	5	µg/L	na	na	na	na
2-Hexanone	0/18	0	nd	nd	2.5	5	µg/L	na	na	na	na
Acetone	0/18	0	nd	nd	2.5	5	µg/L	na	na	na	na
Benzene	1/18	6	2.2	2.2	0.59	1	µg/L	SE-SWY07	na	na	na
Bromodichloromethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Bromoform	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Bromomethane	0/18	0	nd	nd	1.0	2	µg/L	na	na	na	na
Carbon disulfide	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Carbon tetrachloride	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Chlorobenzene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Chloroethane	0/18	0	nd	nd	1.0	2	µg/L	na	na	na	na
Chloroform	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Chloromethane	0/18	0	nd	nd	1.0	2	µg/L	na	na	na	na
cis-1,2-Dichloroethene	6/18	33	1.2	40	5.6	1	µg/L	SE-11001	na	na	na
cis-1,3-Dichloropropene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na

Table E.6.5-1, cont. Summary statistics for Boeing Plant 2 seep data

Analyte	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Dibromochloromethane	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Dichloromethane	0/18	0	nd	nd	1.0	2	µg/L	na	na	na	na
Ethylbenzene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Methyl ethyl ketone	0/18	0	nd	nd	2.5	5	µg/L	na	na	na	na
Styrene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Tetrachloroethene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Toluene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
trans-1,2-Dichloroethene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
trans-1,3-Dichloropropene	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Trichloroethene	3/18	17	1.9	13	1.4	1	µg/L	SE-SWY02	na	na	na
Trichlorofluoromethane	0/18	0	nd	nd	1.0	2	µg/L	na	na	na	na
Vinyl acetate	0/18	0	nd	nd	2.5	5	µg/L	na	na	na	na
Vinyl chloride	4/18	22	3.1	36	5	0.01 – 2	µg/L	SE-11001	na	na	na
Xylene (ortho)	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Xylene (meta & para)	0/18	0	nd	nd	0.50	1	µg/L	na	na	na	na
Total xylenes	0/18	0	nd	nd	0.50	nc	µg/L	na	na	na	na
Petroleum groups											
TPH	0/2	0	nd	nd	0.5	1	mg/L	na	na	na	na

[a] Comparisons were not made to chronic water quality standards because chronic standards are based on 4-day average concentrations not to be exceeded more than once every three years. Because of the tidal cycle, comparison of intertidal seep samples to acute standards is more appropriate. Acute standards represent 1-hour average concentrations not to be exceeded more than once every three years on average.

Table E.6.5-2. Summary of Rhône-Poulenc RFI-3 seep data for detected chemicals

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Metals and trace elements											
Aluminum (total)	7/7	100	361	59,600	nc	na	µg/L	02-SP	na	na	na
Arsenic (total)	1/7	14	31.0	31.0	nc	nr	µg/L	02-SP	na	na	na
Barium (total)	7/7	100	4.5448	174	nc	na	µg/L	01-SP	na	na	na
Beryllium (total)	1/7	14	0.89	0.89	nc	nr	µg/L	02-SP	na	na	na
Cadmium (total)	2/7	29	2.1	11.6	nc	nr	µg/L	02-SP	na	na	na
Calcium (total)[a]	5/5	100	15,012	168,000	nc	na	µg/L	04-SP	na	na	na
Chromium (total)	1/7	14	202	202	nc	nr	µg/L	02-SP	na	na	na
Cobalt (total)	2/7	29	2.9	55.5	nc	nr	µg/L	02-SP	na	na	na
Copper (total)	1/7	14	203	203	nc	nr	µg/L	02-SP	na	na	na
Lead (total)	1/7	14	44.1	44.1	nc	nr	µg/L	02-SP	na	na	na
Magnesium (total) [a]	5/5	100	45,585	541,000	nc	na	µg/L	04-SP	na	na	na
Mercury (total)	1/7	14	0.65	0.65	nc	nr	µg/L	05-SP	na	na	na
Nickel (total)	1/7	14	70.0	70.0	nc	nr	µg/L	02-SP	na	na	na
Phosphorus	5/7	71	210	1,600	nc	nr	µg/L	02-SP	na	na	na
Potassium (total) [a]	5/5	100	30,611.5	211,000	nc	na	µg/L	04-SP	na	na	na
Sodium (total) [a]	5/5	100	69,3176	5,190,000	nc	na	µg/L	04-SP	na	na	na
Vanadium (Total)	7/7	100	2.8	400	nc	na	µg/L	02-SP	na	na	na
Zinc (total)	1/7	14	223	223	nc	nr	µg/L	02-SP	na	na	na
Phthalates											
Bis(2-ethylhexyl)phthalate	2/7	29	13.8	27.0	nc	nr	µg/L	02-SP	na	na	na
Conventional parameters											
Total Organic Carbon (TOC)	7/7	100	1.6	160	nc	na	mg/L	02-SP	na	na	na
Total dissolved solids	7/7	100	1,900	17,000	nc	na	mg/L	04-SP	na	na	na
Sulfate	7/7	100	130	1,200	nc	na	mg/L	04-SP	na	na	na
Alkalinity	7/7	100	68	1,000	nc	na	mg/L $CaCO_3$	02-SP	na	na	na
Bicarbonate	7/7	100	68	1,000	nc	na	mg/L $CaCO_3$	02-SP	na	na	na
Chloride	7/7	100	2,900	9,100	nc	na	mg/L	07-SP	na	na	na
Dissolved oxygen	7/7	100	2.6	9.9	nc	na	mg/L	05-SP	na	na	na
Nitrate	7/7	100	0.10	0.47	nc	nr	mg/L	06-SP 04-SP 03-SP	na	na	na

Table E.6.5-2, cont. Summary of Rhône-Poulenc RFI-3 seep data for detected chemicals

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Nitrite	1/7	14	0.080	0.080	nc	nr	mg/L	02-SP	na	na	na
pH	7/7	100	6.37	7.79	nc	na	pH	04-SP	na	na	na
Salinity	5/7	71	2.5	12.3	nc	nr	ppt	04-SP	na	na	na
Specific Conductance	7/7	100	2,450	14,200	nc	na	µmhos/cm	01-SP	na	na	na
Temperature	7/7	100	10.8	13.8	nc	na	°C	07-SP	na	na	na
Total Kjeldahl Nitrogen (TKN)	6/7	86	0.14	2.2	nc	nr	mg/L	01-SP	na	na	na
Volatile organic compounds											
Formaldehyde	1/7	14	24 J	24 J	nc	nr	µg/L	06-SP	na	na	na

Note: Only detected chemicals were reported in the data report; RLs for nondetected results are not available.

Seven seep locations were analyzed for conventional parameters, hexavalent chromium, metals, SVOCs, VOCs, formaldehyde, and guaiacol/resin acids. Additionally, locations 1, 2, and 3 were analyzed for PCBs, pesticides and herbicides.

[a] Comparisons were not made to chronic water quality standards because chronic standards are based on 4-day average concentrations not to be exceeded more than once every three years. Because of the tidal cycle, comparison of intertidal seep samples to acute standards is more appropriate. Acute standards represent 1-hour average concentrations not to be exceeded more than once every three years on average.

[b] Seep locations 1 and 3 were not anaylyzed for calcium, magnesium, potassium, and sodium.

Table E.6.5-3. Summary statistics for T117 seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Metals and trace elements											
Arsenic (dissolved)	0/3	0	nd	nd	25	50	µg/L	na	69	0	0
Arsenic (total)	0/1	0	nd	nd	25	50	µg/L	na	na	na	na
Cadmium (dissolved)	0/3	0	nd	nd	1.0	2.00	µg/L	na	42	0	0
Cadmium (total)	0/3	0	nd	nd	1.0	2.0	µg/L	na	na	na	na
Chromium (dissolved)	2/3	67	8.00 J	9.00 J	6.50	5.00	µg/L	SEEP_2	1,100	0	0
Chromium (total)	2/3	67	6.00	7.00	5.17	5.00	µg/L	SEEP_3	na	na	na
Copper (dissolved)	3/3	100	4 J	5.00 J	4.67	na	µg/L	SEEP_2 SEEP_1	4.8	2	0
Copper (total)	3/3	100	2.50	4.00	3.17	na	µg/L	SEEP_3	na	na	na
Lead (dissolved)	0/3	0	nd	nd	10	20	µg/L	na	210	0	0
Lead (total)	0/3	0	nd	nd	10	20	µg/L	na	na	na	na
Mercury (total)	0/3	0	nd	nd	0.050	0.10	µg/L	na	na	na	na
Silver (dissolved)	0/3	0	nd	nd	1.50	3.00	µg/L	na	1.9	0	3
Silver (total)	0/3	0	nd	nd	1.50	3.00	µg/L	na	1.9	0	3
Zinc (dissolved)	0/3	0	nd	nd	3.00	6.00	µg/L	na	90	0	0
Zinc (total)	1/3	33	7.00 J	7.00 J	4.33	6.00	µg/L	SEEP_1	na	na	na
PAHs											
2-Methylnaphthalene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Acenaphthene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Acenaphthylene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Anthracene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzo(a)anthracene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzo(a)pyrene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzo(b)fluoranthene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzo(g,h,i)perylene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzo(k)fluoranthene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzofluoranthenes (total-calc'd)	0/3	0	nd	nd	0.50	nc	µg/L	na	nv	0	0
Chrysene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Dibenzo(a,h)anthracene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Dibenzofuran	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0

Table E.6.5-3, cont. Summary statistics for T117 seep data

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]: Detect > Acute	Comparison to Acute WQS [a]: Nondetect > Acute
Fluoranthene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Fluorene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Indeno(1,2,3-cd)pyrene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Naphthalene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Phenanthrene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Pyrene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Total HPAH	0/3	0	nd	nd	0.50	nc	µg/L	na	nv	0	0
Total LPAH	0/3	0	nd	nd	0.50	nc	µg/L	na	nv	0	0
Carcinogenic PAHs - Mammal	0/3	0	nd	nd	0.46	0.91	µg/L	na	nv	0	0
Total PAH	0/3	0	nd	nd	0.50	nc	µg/L	na	nv	0	0
Phthalates											
Bis(2-ethylhexyl)phthalate	1/3	33	8.9 J	8.9 J	3.3	1.0	µg/L	SEEP_2	nv	0	0
Butyl benzyl phthalate	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Diethyl phthalate	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Dimethyl phthalate	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Di-n-butyl phthalate	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Di-n-octyl phthalate	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Other SVOCs											
1,2,4-Trichlorobenzene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
1,2-Dichlorobenzene	0/1	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
1,3-Dichlorobenzene	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
1,4-Dichlorobenzene	0/1	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
2,4-Dimethylphenol	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
2-Methylphenol	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
4-Methylphenol	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Benzoic acid	0/3	0	nd	nd	5.0	10	µg/L	na	nv	0	0
Benzyl alcohol	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Hexachlorobenzene	0/3	0	nd	nd	0.025	0.050	µg/L	na	nv	0	0
Hexachlorobutadiene	0/3	0	nd	nd	0.025	0.050	µg/L	na	nv	0	0
N-Nitrosodiphenylamine	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Pentachlorophenol	0/3	0	nd	nd	2.5	5.0	µg/L	na	13	0	0
Phenol	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Polychlorinated biphenyls											
Aroclor-1016	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Aroclor-1221	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0

Table E.6.5-3, cont. Summary statistics for T117 seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Aroclor-1232	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Aroclor-1242	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Aroclor-1248	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Aroclor-1254	0/3	0	nd	nd	0.50	1.0	µg/L	na	nv	0	0
Aroclor-1260	1/3	33	0.94 J	0.94 J	0.65	1.0	µg/L	SEEP_3	nv	0	0
PCBs (total calc'd)[a]	1/3	33	0.94 J	0.94 J	0.65	nc	µg/L	SEEP_3	10	0	0
Conventional parameters											
Total Organic Carbon (TOC)	2/3	67	2.1	2.5	1.8	1.5	mg/L	SEEP_1	nv	0	0
Total suspended solids	3/3	100	2.2	27	11	na	mg/L	SEEP_3	nv	0	0

a Comparisons were not made to chronic water quality standards because chronic standards are based on 4-day average concentrations not to be exceeded more than once every three years. Because of the tidal cycle, comparison of intertidal seep samples to acute standards is more appropriate. Acute standards represent 1-hour average concentrations not to be exceeded more than once every three years on average.

b The seep water sample at Location SEEP 3 was re-sampled because it was suspected that the detected PCB concentration of 0.94 J may have been an artifact of suspended solids in the water sample. The sample was centrifuged and then analyzed, and PCBs were not detected at a reporting limit of 0.033 µg/L.

Table E.6.5-4. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Unfiltered											
Metals and trace elements											
Arsenic	13/13	100	0.058	287	28	na	µg/L	SP-76	na	na	na
Cadmium	13/13	100	0.022	0.710	0.20	na	µg/L	SP-54	na	na	na
Chromium	1/13	8	74.9	74.9	8.1	0.07 – 11.4	µg/L	SP-54	na	na	na
Copper	10/13	77	8.06 J	50.9	13.2	4.75 – 6.47	µg/L	SP-76	na	na	na
Lead	13/13	100	0.080	296	29	na	µg/L	SP-54	na	na	na
Mercury	13/13	100	0.00061	0.582	0.056	na	µg/L	SP-54	na	na	na
Nickel	12/13	92	2.80	8.83	4.6	0.040 – 0.04	µg/L	SP-20	na	na	na
Silver	11/13	85	0.025	0.11	0.050	0.015	µg/L	SP-82	na	na	na
Zinc	13/13	100	3.49	322	75.8	na	µg/L	SP-54	na	na	na
PAHs											
2-Chloronaphthalene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Methylnaphthalene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Acenaphthene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Acenaphthylene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Anthracene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(a)anthracene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(a)pyrene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(b)fluoranthene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(g,h,i)perylene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(k)fluoranthene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzofluoranthenes (total-calc'd)	0/14	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Chrysene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dibenzo(a,h)anthracene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dibenzofuran	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Fluoranthene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Fluorene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Indeno(1,2,3-cd)pyrene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Naphthalene	0/16	0	nd	nd	0.75	1.0 – 5.0	µg/L	nd	nv	na	na
Phenanthrene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Pyrene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a] Detect > Acute	Nondetect > Acute
Total HPAH	0/14	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Total LPAH	0/14	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Carcinogenic PAHs - Mammal	0/14	0	nd	nd	0.46	0.91	µg/L	nd	nv	na	na
Total PAH	0/14	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Phthalates											
Bis(2-ethylhexyl)phthalate	0/14	0	nd	nd	0.81	1.0 – 3.9	µg/L	nd	nv	na	na
Butyl benzyl phthalate	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Diethyl phthalate	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dimethyl phthalate	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Di-n-butyl phthalate	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Di-n-octyl phthalate	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Other SVOCs											
1,2,4-Trichlorobenzene	0/16	0	nd	nd	0.75	1.0 – 5.0	µg/L	nd	nv	na	na
1,2-Dichlorobenzene	1/16	6	2.9	2.9	0.65	1.0	µg/L	SP-54	nv	na	na
1,3-Dichlorobenzene	1/16	6	58.3	58.3	4.1	1.0	µg/L	SP-54	nv	na	na
1,4-Dichlorobenzene	1/16	6	40.2	40.2	3.0	1.0	µg/L	SP-54	nv	na	na
1,4-Dioxane	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2,4,5-Trichlorophenol	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2,4,6-Trichlorophenol	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2,4-Dichlorophenol	0/14	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
2,4-Dimethylphenol	0/14	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
2,4-Dinitrophenol	0/14	0	nd	nd	13	25	µg/L	nd	nv	na	na
2,4-Dinitrotoluene	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2,6-Dinitrotoluene	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2-Chlorophenol	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Methylphenol	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Nitroaniline	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2-Nitrophenol	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
3,3'-Dichlorobenzidine	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
3-Nitroaniline	0/14	0	nd	nd	3.0	6.0	µg/L	nd	nv	na	na
4,6-Dinitro-o-cresol	0/14	0	nd	nd	7.5	15	µg/L	nd	nv	na	na
4-Bromophenyl phenyl ether	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
4-Chloro-3-methylphenol	0/14	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
4-Chloroaniline	0/14	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
4-Chlorophenyl phenyl ether	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
4-Methylphenol	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
4-Nitroaniline	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
4-Nitrophenol	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Benzoic acid	0/14	0	nd	nd	5.0	10	µg/L	nd	nv	na	na
Benzyl alcohol	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
bis(2-chloroethoxy)methane	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
bis(2-chloroethyl)ether	0/14	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
bis(2-chloroisopropyl)ether	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Carbazole	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Hexachlorobenzene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Hexachlorobutadiene	0/16	0	nd	nd	1.2	2.0 – 5.0	µg/L	nd	nv	na	na
Hexachlorocyclopentadiene	0/14	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Hexachloroethane	0/14	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Isophorone	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Methyl isobutyl ketone	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Nitrobenzene	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
N-Nitroso-di-n-propylamine	0/14	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
N-Nitrosodiphenylamine	0/14	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Pentachlorophenol	0/14	0	nd	nd	2.5	5.0	µg/L	nd	na	na	na
Phenol	0/14	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Polychlorinated biphenyls											
Aroclor-1016	0/14	0	nd	nd	0.015	0.017 – 0.17	µg/L	nd	nv	na	na
Aroclor-1221	0/14	0	nd	nd	0.015	0.017 – 0.17	µg/L	nd	nv	na	na
Aroclor-1232	0/14	0	nd	nd	0.015	0.017 – 0.17	µg/L	nd	nv	na	na
Aroclor-1242	0/14	0	nd	nd	0.015	0.017 – 0.17	µg/L	nd	nv	na	na
Aroclor-1248	2/14	14	0.092	4.7	0.35	0.017 – 0.02	µg/L	SP-54	nv	na	na
Aroclor-1254	3/14	21	0.020 J	2.3 J	0.19	0.017 – 0.02	µg/L	SP-54	nv	na	na
Aroclor-1260	2/14	14	0.16	1.9 J	0.15	0.017 – 0.02	µg/L	SP-54	nv	na	na
PCBs (total calc'd)	3/14	21	0.020 J	8.9 J	0.68	nc	µg/L	SP-54	na	na	na
Pesticides											
4,4'-DDD	0/13	0	nd	nd	0.0077	0.0017 – 0.18	µg/L	nd	na	na	na
4,4'-DDE	0/13	0	nd	nd	0.0087	0.0017 – 0.17	µg/L	nd	na	na	na
4,4'-DDT	0/13	0	nd	nd	0.0015	0.0017 – 0.017	µg/L	nd	na	na	na
DDTs (total-calc'd)	0/13	0	nd	nd	0.0091	0.0017 – 0.18	µg/L	nd	na	na	na
Aldrin	0/13	0	nd	nd	0.00070	0.0008 – 0.0083	µg/L	nd	na	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Dieldrin	0/13	0	nd	nd	0.0060	0.0017 – 0.11	µg/L	nd	na	na	na
Total aldrin/dieldrin	0/13	0	nd	nd	0.0060	nc	µg/L	nd	na	na	na
alpha-BHC	0/13	0	nd	nd	0.00082	0.0008 – 0.0083	µg/L	nd	nv	na	na
beta-BHC	0/13	0	nd	nd	0.00081	0.0008 – 0.0083	µg/L	nd	nv	na	na
gamma-BHC	0/13	0	nd	nd	0.00070	0.0008 – 0.0083	µg/L	nd	na	na	na
delta-BHC	0/13	0	nd	nd	0.0012	0.0008 – 0.0083	µg/L	nd	nv	na	na
alpha-Chlordane	0/13	0	nd	nd	0.00070	0.0008 – 0.0083	µg/L	nd	nv	na	na
gamma-Chlordane	0/13	0	nd	nd	0.00079	0.0008 – 0.0083	µg/L	nd	nv	na	na
alpha-Endosulfan	0/13	0	nd	nd	0.00070	0.0008 – 0.0083	µg/L	nd	na	na	na
beta-Endosulfan	0/13	0	nd	nd	0.011	0.0017 – 0.26	µg/L	nd	na	na	na
Endosulfan sulfate	0/13	0	nd	nd	0.0015	0.0017 – 0.017	µg/L	nd	na	na	na
Endrin	0/13	0	nd	nd	0.0030	0.0017 – 0.057	µg/L	nd	na	na	na
Endrin aldehyde	0/13	0	nd	nd	0.0031	0.0017 – 0.061	µg/L	nd	nv	na	na
Endrin ketone	0/13	0	nd	nd	0.0015	0.0017 – 0.017	µg/L	nd	nv	na	na
Heptachlor	0/13	0	nd	nd	0.00070	0.0008 – 0.0083	µg/L	nd	na	na	na
Heptachlor epoxide	1/13	8	0.0076	0.0076	0.0013	0.0008 – 0.0083	µg/L	SP-39	nv	na	na
Methoxychlor	0/13	0	nd	nd	0.0071	0.0083 – 0.083	µg/L	nd	nv	na	na
Toxaphene	0/13	0	nd	nd	0.071	0.083 – 0.83	µg/L	nd	na	na	na
Total chlordane	0/13	0	nd	nd	0.00079	nc	µg/L	nd	nv	na	na
Conventional parameters											
Total Organic Carbon (TOC)	8/13	62	2.08	13.4	3.8	1.5	mg/L	SP-80	nv	na	na
Total suspended solids	13/13	100	4.3 J	33.3	14	na	mg/L	SP-80	nv	na	na
Volatile organic compounds											
1,1,1,2-Tetrachloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,1,1-Trichloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,1,2,2-Tetrachloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,1,2-Trichloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,1,2-Trichlorotrifluoroethane	0/16	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
1,1-Dichloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,1-Dichloroethene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,1-Dichloropropene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,2,3-Trichlorobenzene	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
1,2,3-Trichloropropane	0/16	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
1,2,4-Trimethylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,2-Dibromo-3-chloropropane	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a] Detect > Acute	Comparison to Acute WQS [a] Nondetect > Acute
1,2-Dibromoethane (EDB)	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,2-Dichloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,2-Dichloropropane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,3,5-Trimethylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,3-Dichloropropane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2,2-Dichloropropane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Chlorotoluene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Hexanone	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
4-Chlorotoluene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Acetone	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Acrolein	0/16	0	nd	nd	25	50	µg/L	nd	nv	na	na
Acrylonitrile	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Bromobenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Bromochloromethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Bromodichloromethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Bromoethane	0/16	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Bromoform	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Bromomethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Carbon disulfide	2/16	12	1.1	2.4	0.66	1.0	µg/L	SP-54	nv	na	na
Carbon tetrachloride	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Chlorobenzene	1/16	6	6.5	6.5	0.88	1.0	µg/L	SP-54	nv	na	na
Chloroethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Chloroform	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Chloromethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
cis-1,2-Dichloroethene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
cis-1,3-Dichloropropene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
p-Cymene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dibromochloromethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dibromomethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dichloromethane	0/16	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Ethylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Iodomethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Isopropylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Methyl ethyl ketone	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
n-Butylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
n-Propylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
sec-Butylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Styrene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
tert-Butylbenzene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Tetrachloroethene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Toluene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
trans-1,2-Dichloroethene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
trans-1,3-Dichloropropene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
trans-1,4-Dichloro-2-butene	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Trichloroethene	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Trichlorofluoromethane	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Vinyl acetate	0/16	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Vinyl chloride	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Xylene (ortho)	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Xylene (meta & para)	0/16	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Total xylenes	0/16	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Petroleum groups											
Gasoline	1/8	12	0.29	0.29	0.15	0.25	mg/L	SP-54	nv	na	na
TPH - Diesel Range	2/8	25	0.54	2.2	0.44	0.25	mg/L	SP-54	nv	na	na
TPH - Motor Oil Range	1/8	12	1.9	1.9	0.46	0.5	mg/L	SP-54	nv	na	na
Filtered											
Metals and trace elements											
Arsenic	16/16	100	0.054	253	22	na	µg/L	SP-76	69	2	0
Cadmium	16/16	100	0.009	0.508	0.099	na	µg/L	SP-82	42	0	0
Chromium	0/16	0	nd	nd	2.75	1.51 – 9.74	µg/L	na	1100	0	0
Copper	7/16	44	8.16 J	22.8	6.6	3.28 – 7.77	µg/L	SP-80	4.8	7	5
Lead	16/16	100	0.036	3	0.34	na	µg/L	SP-76	210	0	0
Mercury	16/16	100	0.00062	0.0153	0.0035	na	µg/L	SP-76	1.8	0	0
Nickel	12/16	75	0.84	5.25	1.9	0.04	µg/L	SP-20	74	0	0
Silver	14/16	88	0.012	0.112	0.047	0.015	µg/L	SP-20	1.9	0	0
Zinc	16/16	100	3.29	161	26.5	na	µg/L	SP-82	90	2	0
PAHs											
2-Chloronaphthalene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Methylnaphthalene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Acenaphthene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Acenaphthylene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Anthracene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(a)anthracene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(a)pyrene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(b)fluoranthene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(g,h,i)perylene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzo(k)fluoranthene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Benzofluoranthenes (total-calc'd)	0/15	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Chrysene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dibenzo(a,h)anthracene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Dibenzofuran	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Fluoranthene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Fluorene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Indeno(1,2,3-cd)pyrene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Naphthalene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Phenanthrene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Pyrene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Total HPAH	0/15	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Total LPAH	0/15	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Carcinogenic PAHs - Mammal	0/15	0	nd	nd	0.46	0.91	µg/L	nd	nv	na	na
Total PAH	0/15	0	nd	nd	0.50	nc	µg/L	nd	nv	na	na
Phthalates											
Bis(2-ethylhexyl)phthalate	0/14	0	nd	nd	0.67	1.0 – 3.8	µg/L	nd	nv	na	na
Butyl benzyl phthalate	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Diethyl phthalate	0/15	0	nd	nd	0.67	1.0 – 5.5	µg/L	nd	nv	na	na
Dimethyl phthalate	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Di-n-butyl phthalate	0/15	0	nd	nd	0.59	1.0 – 3.8	µg/L	nd	nv	na	na
Di-n-octyl phthalate	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Other SVOCs											
1,2,4-Trichlorobenzene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,2-Dichlorobenzene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
1,3-Dichlorobenzene	1/15	7	3.6	3.6	0.71	1.0	µg/L	SP-54	nv	na	na
1,4-Dichlorobenzene	1/15	7	3.9	3.9	0.73	1.0	µg/L	SP-54	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
1,4-Dioxane	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2,4,5-Trichlorophenol	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2,4,6-Trichlorophenol	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2,4-Dichlorophenol	0/15	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
2,4-Dimethylphenol	0/15	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
2,4-Dinitrophenol	0/15	0	nd	nd	13	25	µg/L	nd	nv	na	na
2,4-Dinitrotoluene	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2,6-Dinitrotoluene	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2-Chlorophenol	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Methylphenol	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
2-Nitroaniline	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
2-Nitrophenol	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
3,3'-Dichlorobenzidine	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
3-Nitroaniline	0/15	0	nd	nd	3.0	6.0	µg/L	nd	nv	na	na
4,6-Dinitro-o-cresol	0/15	0	nd	nd	7.5	15	µg/L	nd	nv	na	na
4-Bromophenyl phenyl ether	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
4-Chloro-3-methylphenol	0/15	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
4-Chloroaniline	0/15	0	nd	nd	1.5	3.0	µg/L	nd	nv	na	na
4-Chlorophenyl phenyl ether	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
4-Methylphenol	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
4-Nitroaniline	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
4-Nitrophenol	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Benzoic acid	0/15	0	nd	nd	5.0	10	µg/L	nd	nv	na	na
Benzyl alcohol	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
bis(2-chloroethoxy)methane	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
bis(2-chloroethyl)ether	0/15	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
bis(2-chloroisopropyl)ether	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Carbazole	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Hexachlorobenzene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Hexachlorobutadiene	0/15	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Hexachlorocyclopentadiene	0/15	0	nd	nd	2.5	5.0	µg/L	nd	nv	na	na
Hexachloroethane	0/15	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Isophorone	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Nitrobenzene	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
N-Nitroso-di-n-propylamine	0/15	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
N-Nitrosodiphenylamine	0/15	0	nd	nd	0.50	1.0	µg/L	nd	nv	na	na
Pentachlorophenol	0/15	0	nd	nd	2.5	5.0	µg/L	nd	13	0	0
Phenol	0/15	0	nd	nd	1.0	2.0	µg/L	nd	nv	na	na
Polychlorinated biphenyls											
Aroclor-1016	0/16	0	nd	nd	0.0085	0.017	µg/L	nd	nv	na	na
Aroclor-1221	0/16	0	nd	nd	0.0085	0.017	µg/L	nd	nv	na	na
Aroclor-1232	0/16	0	nd	nd	0.0085	0.017	µg/L	nd	nv	na	na
Aroclor-1242	0/16	0	nd	nd	0.0085	0.017	µg/L	nd	nv	na	na
Aroclor-1248	1/16	6	0.21	0.21	0.021	0.017	µg/L	SP-54	nv	na	na
Aroclor-1254	0/16	0	nd	nd	0.013	0.017 – 0.15	µg/L	nd	nv	na	na
Aroclor-1260	1/16	6	0.047	0.047	0.011	0.017	µg/L	SP-54	nv	na	na
PCBs (total calc'd)	1/16	6	0.26	0.26	0.024	nc	µg/L	SP-54	10	0	0
Pesticides											
4,4'-DDD	0/16	0	nd	nd	0.0016	0.0017 – 0.021	µg/L	nd	0.13	0	0
4,4'-DDE	0/16	0	nd	nd	0.0026	0.0017 – 0.058	µg/L	nd	0.13	0	0
4,4'-DDT	0/16	0	nd	nd	0.00085	0.0017	µg/L	nd	0.13	0	0
DDTs (total-calc'd)	0/16	0	nd	nd	0.0032	0.0017 – 0.058	µg/L	nd	0.13	0	0
Aldrin	0/16	0	nd	nd	0.00040	0.0008	µg/L	nd	0.71	0	0
Dieldrin	0/16	0	nd	nd	0.0011	0.0017 – 0.0095	µg/L	nd	0.71	0	0
Total aldrin/dieldrin	0/16	0	nd	nd	0.0011	nc	µg/L	nd	nv	na	na
alpha-BHC	0/16	0	nd	nd	0.00059	0.0008 – 0.007	µg/L	nd	nv	na	na
beta-BHC	0/16	0	nd	nd	0.00066	0.0008 – 0.009	µg/L	nd	nv	na	na
gamma-BHC	0/16	0	nd	nd	0.00040	0.0008	µg/L	nd	0.16	0	na
delta-BHC	0/16	0	nd	nd	0.0018	0.0008 – 0.013	µg/L	nd	nv	na	na
alpha-Chlordane	0/16	0	nd	nd	0.0016	0.0008 – 0.038	µg/L	nd	nv	na	na
gamma-Chlordane	0/16	0	nd	nd	0.00067	0.0008 – 0.0054	µg/L	nd	nv	na	na
alpha-Endosulfan	0/16	0	nd	nd	0.00040	0.0008	µg/L	nd	0.034	0	0
beta-Endosulfan	0/16	0	nd	nd	0.0011	0.0017 – 0.011	µg/L	nd	0.034	0	0
Endosulfan sulfate	0/16	0	nd	nd	0.00085	0.0017	µg/L	nd	0.034	0	0
Endrin	0/16	0	nd	nd	0.00085	0.0017	µg/L	nd	0.037	0	0
Endrin aldehyde	0/16	0	nd	nd	0.00085	0.0017	µg/L	nd	nv	na	na
Endrin ketone	0/16	0	nd	nd	0.00085	0.0017	µg/L	nd	nv	na	na
Heptachlor	0/16	0	nd	nd	0.00040	0.0008	µg/L	nd	0.053	0	0
Heptachlor epoxide	1/16	6	0.0090	0.0090	0.0014	0.0008 – 0.016	µg/L	SP-39	nv	na	na
Methoxychlor	0/16	0	nd	nd	0.0042	0.0083	µg/L	nd	nv	na	na

Table E.6.5-4, cont. Summary statistics for LDWG Phase 2 RI seep data

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Toxaphene	0/16	0	nd	nd	0.042	0.083	µg/L	nd	0.21	0	0
Total chlordane	0/16	0	nd	nd	0.0019	nc	µg/L	nd	nv	na	na
Conventional parameters											
Dissolved Organic Carbon	6/16	38	1.75 J	14.8 J	2.7	1.5	mg/L	SP-80	nv	na	na
Petroleum groups											
TPH - Diesel Range	2/8	25	0.50	1.4	0.33	0.25	mg/L	SP-54	nv	na	na
TPH - Motor Oil Range	0/8	0	nd	nd	0.25	0.5	mg/L	nd	nv	na	na

[a] Comparisons were not made to chronic water quality standards because chronic standards are based on 4-day average concentrations not to be exceeded more than once every three years. Because of the tidal cycle, comparison of intertidal seep samples to acute standards is more appropriate. Acute standards represent 1-hour average concentrations not to be exceeded more than once every three years on average.

Table E.6.5-5. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a] Detect > Acute	Comparison to Acute WQS [a] Nondetect > Acute
GreatWestern Apr-94											
Other SVOCs											
Methyl isobutyl ketone	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Conventional parameters											
Salinity	6/6	100	2.57	12.03	7.4	na	ppt	S-1 S-6	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	3/6	50	1.0	2.0	1.1	1.0	µg/L	S-4 S-1	nv	na	na
1,1-Dichloroethene	1/6	17	1.0	1.0	0.58	1.0	µg/L	S-4	nv	na	na
1,2-Dichloroethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethene (total)	3/6	50	7.0	110	23	1.0	µg/L	S-2	nv	na	na
1,2-Dichloropropane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Hexanone	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Acetone	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Benzene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/6	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Bromomethane	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Carbon tetrachloride	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
cis-1,3-Dichloropropene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/6	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Ethylbenzene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a] Detect > Acute	Comparison to Acute WQS [a] Nondetect > Acute
Methyl ethyl ketone	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/6	33	3.0	760	130	1.0	µg/L	S-2	nv	na	na
Toluene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,3-Dichloropropene	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	3/6	50	1.0	370	62	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/6	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	1/6	17	1.0	1.0	0.58	1.0	µg/L	S-4	nv	na	na
Xylene (total)	0/6	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
GreatWestern Jul-94											
Other SVOCs											
Methyl isobutyl ketone	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Conventional parameters											
Salinity	2/2	100	17.8	20.55	19.2	na	ppt	S-1	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	1/2	50	1.0	1.0	0.75	1.0	µg/L	S-1	nv	na	na
1,1-Dichloroethene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethene (total)	2/2	100	3.0	40	22	na	µg/L	S-2	nv	na	na
1,2-Dichloropropane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Hexanone	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Acetone	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Benzene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/2	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Bromomethane	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Carbon tetrachloride	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a] Detect > Acute	Comparison to Acute WQS [a] Nondetect > Acute
cis-1,3-Dichloropropene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/2	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Ethylbenzene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Methyl ethyl ketone	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/2	100	2.0	220	110	na	µg/L	S-2	nv	na	na
Toluene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,3-Dichloropropene	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	1/2	50	94	94	47	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/2	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	1/2	50	3.0	3.0	1.8	1.0	µg/L	S-2	nv	na	na
Xylene (total)	0/2	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
GreatWestern May-95											
Other SVOCs											
Methyl isobutyl ketone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	1/7	14	1.0	1.0	0.57	1.0	µg/L	S-1	nv	na	na
1,1,2,2-Tetrachloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	2/7	29	1.0	2.0	0.79	1.0	µg/L	S-1	nv	na	na
1,1-Dichloroethene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	1/7	14	1.0	1.0	0.57	1.0	µg/L	S-2	nv	na	na
1,2-Dichloroethene (total)	3/7	43	3.0	150	26	1.0	µg/L	S-2	nv	na	na
1,2-Dichloropropane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Hexanone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Acetone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Benzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/7	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Bromomethane	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Carbon tetrachloride	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Chloroform	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
cis-1,3-Dichloropropene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/7	0	nd	nd	3.1	5.0 – 10	µg/L	na	nv	na	na
Ethylbenzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Methyl ethyl ketone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/7	29	6.0	710	100	1.0	µg/L	S-2	nv	na	na
Toluene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,3-Dichloropropene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	2/7	29	8.0	480	70	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	2/7	29	2.0	2.0	0.93	1.0	µg/L	S-4 S-2	nv	na	na
Xylene (total)	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
GreatWestern Nov-94											
Other SVOCs											
Methyl isobutyl ketone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethene (total)	2/7	29	1.0	50	7.6	1.0	µg/L	S-2	nv	na	na
1,2-Dichloropropane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Hexanone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Acetone	0/7	0	nd	nd	16	10 – 100	µg/L	na	nv	na	na
Benzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/7	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Bromomethane	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS[a] Detect > Acute	Comparison to Acute WQS[a] Nondetect > Acute
Carbon tetrachloride	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
cis-1,3-Dichloropropene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/7	0	nd	nd	2.9	5.0 – 10	µg/L	na	nv	na	na
Ethylbenzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Methyl ethyl ketone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/7	29	1.0	440	63	1.0	µg/L	S-2	nv	na	na
Toluene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,3-Dichloropropene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	1/7	14	130	130	19	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Xylene (total)	0/7	0	nd	nd	0.50	nc	µg/L	na	nv	na	na
GreatWestern-1995annual											
Other SVOCs											
Methyl isobutyl ketone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	2/7	29	1.0	1.0	0.64	1.0	µg/L	S-1 S-2	nv	na	na
1,1-Dichloroethene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	1/7	14	1.0	1.0	0.57	1.0	µg/L	S-2	nv	na	na
1,2-Dichloroethene (total)	4/7	57	1.0	160	27	1.0	µg/L	S-2	nv	na	na
1,2-Dichloropropane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Hexanone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Acetone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Benzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Concentration Maximum Detect	Concentration Calculated Mean	Concentration RL or Range of RLs	Concentration Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS[a] Detect > Acute	Comparison to Acute WQS[a] Nondetect > Acute
Bromoform	0/7	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Bromomethane	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Carbon tetrachloride	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
cis-1,3-Dichloropropene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/7	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Ethylbenzene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Methyl ethyl ketone	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/7	29	4.0	610	88	1.0	µg/L	S-2	nv	na	na
Toluene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,3-Dichloropropene	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	2/7	29	4.0	360	52	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/7	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	2/7	29	1.0	1.0	0.64	1.0	µg/L	S-2 S-11	nv	na	na
Xylene (total)	0/7	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
GreatWestern-1996annual											
Other SVOCs											
Methyl isobutyl ketone	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	1/5	20	1.0	1.0	0.60	1.0	µg/L	S-2	nv	na	na
1,1-Dichloroethene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	1/5	20	8.0	8.0	2.0	1.0	µg/L	S-2	nv	na	na
1,2-Dichloroethene (total)	3/5	60	8.0	310	69	1.0	µg/L	S-2	nv	na	na
1,2-Dichloropropane	1/5	20	1.0	1.0	0.60	1.0	µg/L	S-2	nv	na	na
2-Hexanone	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Acetone	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Benzene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Bromomethane	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon tetrachloride	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
cis-1,3-Dichloropropene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Ethylbenzene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Methyl ethyl ketone	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/5	40	13	79	19	1.0	µg/L	S-2	nv	na	na
Toluene	1/5	20	2.0	2.0	0.80	1.0	µg/L	S-4	nv	na	na
trans-1,3-Dichloropropene	0/5	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	2/5	40	7.0	58	13	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/5	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	1/5	20	3.0 J	3.0 J	1.0	1.0	µg/L	S-2	nv	na	na
Xylene (total)	1/5	20	1.0	1.0	0.60	nc	µg/L	S-4	nv	na	na
GreatWestern-1997annual											
Other SVOCs											
Methyl isobutyl ketone	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Conventional parameters											
Chloride	1/1	100	5,600	5,600	5,600	na	mg/L	S-2	nv	na	na
Salinity	4/4	100	3.6	12	7.8	na	g/L	S-12	nv	na	na
Volatile organic compounds											
1,1,1-Trichloroethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	1/4	25	1.0	1.0	0.60	1.0	µg/L	S-1	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
1,1-Dichloroethene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethene (total)	2/4	50	37	470	100	1.0	µg/L	S-2	nv	na	na
1,2-Dichloropropane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Hexanone	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Acetone	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Benzene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/4	0	nd	nd	3.0	5.0	µg/L	na	nv	na	na
Bromomethane	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon disulfide	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Carbon tetrachloride	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chlorobenzene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
cis-1,3-Dichloropropene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/4	0	nd	nd	3.0	5.0	µg/L	na	nv	na	na
Ethylbenzene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Methyl ethyl ketone	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Styrene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	2/4	50	19	150	40	1.0	µg/L	S-2	nv	na	na
Toluene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,3-Dichloropropene	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	2/4	50	7.0	200	50	1.0	µg/L	S-2	nv	na	na
Vinyl acetate	0/4	0	nd	nd	5.0	10	µg/L	na	nv	na	na
Vinyl chloride	0/4	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Xylene (total)	0/4	0	nd	nd	0.50	nc	µg/L	na	nv	na	na
GreatWestern-1998annual											
PAHs											
Naphthalene	0/9	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Other SVOCs											
1,2,4-Trichlorobenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichlorobenzene	1/9	11	1.3	1.3	0.59	1.0	µg/L	S-13	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
1,3-Dichlorobenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,4-Dichlorobenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Hexachlorobutadiene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Conventional parameters											
Salinity	8/8	100	16	25	19	na	s/cm	S-11	nv	na	na
Volatile organic compounds											
1,1,1,2-Tetrachloroethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,1-Trichloroethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,1-Dichloroethane	2/9	22	4.1	53	6.7	1.0	µg/L	S-13	nv	na	na
1,1-Dichloroethene	1/9	11	18	18	2.4	1.0	µg/L	S-13	nv	na	na
1,1-Dichloropropene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2,3-Trichlorobenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2,3-Trichloropropane	0/9	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
1,2,4-Trimethylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dibromo-3-chloropropane	0/9	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
1,2-Dibromoethane (EDB)	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,2-Dichloroethane	1/9	11	8.5	8.5	1.4	1.0	µg/L	S-13	nv	na	na
1,2-Dichloropropane	1/9	11	2.7	2.7	0.74	1.0	µg/L	S-13	nv	na	na
1,3,5-Trimethylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
1,3-Dichloropropane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2,2-Dichloropropane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
2-Chlorotoluene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
4-Chlorotoluene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Benzene	1/9	11	28	28	3.6	1.0	µg/L	S-13	nv	na	na
Bromobenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromodichloromethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromoform	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Bromomethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Carbon tetrachloride	0/9	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Chlorobenzene	1/9	11	4.1	4.1	0.90	1.0	µg/L	S-13	nv	na	na
Chloroethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloroform	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Chloromethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
cis-1,2-Dichloroethene	3/9	33	41	3,300	380	1.0	µg/L	S-13	nv	na	na
cis-1,3-Dichloropropene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromochloromethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dibromomethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichlorodifluoromethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Dichloromethane	0/9	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Ethylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Isopropylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
iso-Propyltoluene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
n-Butylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
n-Propylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
sec-Butylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Styrene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
tert-Butylbenzene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Tetrachloroethene	4/9	44	1.3	290	34	1.0	µg/L	S-2	nv	na	na
Toluene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
trans-1,2-Dichloroethene	2/9	22	3.5	46	5.9	1.0	µg/L	S-13	nv	na	na
trans-1,3-Dichloropropene	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Trichloroethene	3/9	33	4.0	170	20	1.0	µg/L	S-2	nv	na	na
Trichlorofluoromethane	0/9	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Vinyl chloride	2/9	22	1.0	760	85	1.0	µg/L	S-13	nv	na	na
Xylene (ortho)	1/9	11	1.4	1.4	0.60	1.0	µg/L	S-13	nv	na	na
Xylene (meta & para)	0/9	0	nd	nd	1.0	2.0	µg/L	na	nv	na	na
Total xylenes	1/9	11	1.4	1.4	1.0	nc	µg/L	S-13	nv	na	na
GreatWestern-1999annual											
PAHs											
2-Chloronaphthalene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
2-Methylnaphthalene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Acenaphthene	1/5	20	1.3	1.3	0.46	0.50	µg/L	S-13	nv	na	na
Acenaphthylene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Anthracene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Benzo(a)anthracene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Benzo(a)pyrene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Benzo(b)fluoranthene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Benzo(g,h,i)perylene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Benzo(k)fluoranthene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Benzofluoranthenes (total-calc'd)	0/5	0	nd	nd	0.25	nc	µg/L	na	nv	na	na
Chrysene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Dibenzo(a,h)anthracene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Dibenzofuran	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Fluoranthene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Fluorene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Indeno(1,2,3-cd)pyrene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Naphthalene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Phenanthrene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Pyrene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Total HPAH	0/5	0	nd	nd	0.25	nc	µg/L	na	nv	na	na
Total LPAH	1/5	20	1.3	1.3	0.46	nc	µg/L	S-13	nv	na	na
Carcinogenic PAHs - Mammal	0/5	0	nd	nd	0.23	0.45	µg/L	na	nv	na	na
Total PAH	1/5	20	1.3	1.3	0.46	nc	µg/L	S-13	nv	na	na
Phthalates											
Bis(2-ethylhexyl)phthalate	0/5	0	nd	nd	0.64	0.50 – 4.4	µg/L	na	nv	na	na
Butyl benzyl phthalate	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Diethyl phthalate	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Dimethyl phthalate	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Di-n-butyl phthalate	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Di-n-octyl phthalate	0/5	0	nd	nd	2.1	0.50 – 5.0	µg/L	na	nv	na	na
Other SVOCs											
1,2,4-Trichlorobenzene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
1,2-Dichlorobenzene	1/5	20	1.0	1.0	0.40	0.50	µg/L	S-13	nv	na	na
1,3-Dichlorobenzene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
1,4-Dichlorobenzene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
2,4,5-Trichlorophenol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
2,4,6-Trichlorophenol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
2,4-Dichlorophenol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
2,4-Dimethylphenol	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
2,4-Dinitrophenol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
2,4-Dinitrotoluene	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
2,6-Dinitrotoluene	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
2-Chlorophenol	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
2-Methylphenol	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
2-Nitroaniline	0/5	0	nd	nd	2.1	0.50 – 5.0	µg/L	na	nv	na	na
2-Nitrophenol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
3,3'-Dichlorobenzidine	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
3-Nitroaniline	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
4,6-Dinitro-o-cresol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
4-Bromophenyl phenyl ether	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
4-Chloro-3-methylphenol	0/5	0	nd	nd	0.70	0.50 – 5.0	µg/L	na	nv	na	na
4-Chloroaniline	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
4-Chlorophenyl phenyl ether	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
4-Methylphenol	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
4-Nitroaniline	0/5	0	nd	nd	2.1	0.50 – 5.0	µg/L	na	nv	na	na
4-Nitrophenol	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Aniline	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Benzidine	0/5	0	nd	nd	6.5	13	µg/L	na	nv	na	na
Benzoic acid	0/5	0	nd	nd	6.5	13	µg/L	na	nv	na	na
Benzyl alcohol	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
bis(2-chloroethoxy)methane	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
bis(2-chloroethyl)ether	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
bis(2-chloroisopropyl)ether	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Carbazole	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Hexachlorobenzene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Hexachlorobutadiene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Hexachlorocyclopentadiene	0/5	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Hexachloroethane	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Isophorone	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Methyl isobutyl ketone	0/5	0	nd	nd	13	5.0 – 100	µg/L	na	nv	na	na
Nitrobenzene	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
N-Nitroso-di-n-propylamine	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
N-Nitrosodiphenylamine	0/5	0	nd	nd	0.70	0.50 – 5.0	µg/L	na	nv	na	na
Pentachlorophenol	0/5	0	nd	nd	0.25	0.50	µg/L	na	13	0	0
Phenol	0/5	0	nd	nd	0.25	0.50	µg/L	na	nv	na	na
Conventional parameters											
Salinity	1/1	100	6.8	6.8	6.8	na	s/cm	S-13	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Volatile organic compounds											
1,1,1,2-Tetrachloroethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,1,1-Trichloroethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,1-Dichloroethane	1/5	20	58	58	12	1.0 – 2.0	µg/L	S-13	nv	na	na
1,1-Dichloroethene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,1-Dichloropropene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,2,3-Trichlorobenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,2,3-Trichloropropane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,2,4-Trimethylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,2-Dibromo-3-chloropropane	0/5	0	nd	nd	13	5.0 – 100	µg/L	na	nv	na	na
1,2-Dibromoethane (EDB)	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,2-Dichloroethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,2-Dichloropropane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,3,5-Trimethylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
1,3-Dichloropropane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
2,2-Dichloropropane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
2-Chloroethyl vinyl ether	0/5	0	nd	nd	13	5.0 – 100	µg/L	na	nv	na	na
2-Chlorotoluene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
4-Chlorotoluene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Acetone	0/5	0	nd	nd	13	5.0 – 100	µg/L	na	nv	na	na
Benzene	1/5	20	28	28	6.1	1.0 – 2.0	µg/L	S-13	nv	na	na
Bromobenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Bromodichloromethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Bromoform	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Bromomethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Carbon disulfide	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Carbon tetrachloride	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Chlorobenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Chloroethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Chloroform	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Chloromethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
cis-1,2-Dichloroethene	3/5	60	5.6	3,200	660	1.0	µg/L	S-13	nv	na	na
cis-1,3-Dichloropropene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Dibromochloromethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Dibromomethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Dichlorodifluoromethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Dichloromethane	0/5	0	nd	nd	13	5.0 – 100	µg/L	na	nv	na	na
Ethylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Isopropylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
iso-Propyltoluene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Methyl ethyl ketone	0/5	0	nd	nd	50	20 – 400	µg/L	na	nv	na	na
n-Butylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
n-Propylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
sec-Butylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Styrene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
tert-Butylbenzene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Tetrachloroethene	2/5	40	3.7	190	41	1.0 – 20	µg/L	S-2	nv	na	na
Toluene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
trans-1,2-Dichloroethene	2/5	40	12	27	8.1	1.0	µg/L	S-13	nv	na	na
trans-1,3-Dichloropropene	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Trichloroethene	2/5	40	2.1	270	57	1.0 – 20	µg/L	S-2	nv	na	na
Trichlorofluoromethane	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Vinyl acetate	0/5	0	nd	nd	13	5.0 – 100	µg/L	na	nv	na	na
Vinyl chloride	1/5	20	3,500	3,500	700	1.0 – 2.0	µg/L	S-13	nv	na	na
Xylene (ortho)	0/5	0	nd	nd	2.5	1.0 – 20	µg/L	na	nv	na	na
Xylene (meta & para)	0/5	0	nd	nd	5.0	2.0 – 40	µg/L	na	nv	na	na
Total xylenes	0/5	0	nd	nd	5.0	nc	µg/L	na	nv	na	na
GreatWestern-Embayment Study											
PAHs											
Naphthalene	0/4	0	nd	nd	19	5.0 – 50	µg/L	na	nv	na	na
Other SVOCs											
1,2,4-Trichlorobenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,2-Dichlorobenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,3-Dichlorobenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,4-Dichlorobenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Hexachlorobutadiene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Methyl isobutyl ketone	0/8	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]	
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit			Detect > Acute	Nondetect > Acute
Conventional parameters											
Salinity	6/6	100	7.5	14	10	na	g/L	S-1	nv	na	na
Salinity	4/4	100	3.1	7.2	5.0	na	s/cm	S-1	nv	na	na
Volatile organic compounds											
1,1,1,2-Tetrachloroethane	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,1,1-Trichloroethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
1,1,2,2-Tetrachloroethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
1,1,2-Trichloroethane	0/10	0	nd	nd	2.8	1.0 – 10	µg/L	na	nv	na	na
1,1-Dichloroethane	5/10	50	1.5	62	13	1.0	µg/L	S-13	nv	na	na
1,1-Dichloroethene	3/10	30	1.0	27	4.7	1.0 – 10	µg/L	S-13	nv	na	na
1,1-Dichloropropene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,2,3-Trichlorobenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,2,3-Trichloropropane	0/10	0	nd	nd	5.4	1.0 – 50	µg/L	na	nv	na	na
1,2,4-Trimethylbenzene	1/4	25	4.1	4.1	4.8	10	µg/L	S-1	nv	na	na
1,2-Dibromo-3-chloropropane	0/4	0	nd	nd	19	5.0 – 50	µg/L	na	nv	na	na
1,2-Dibromoethane (EDB)	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,2-Dichloroethane	2/10	20	6.6	27	4.2	1.0 – 10	µg/L	S-14	nv	na	na
1,2-Dichloropropane	1/10	10	16	16	3.9	1.0 – 10	µg/L	S-14	nv	na	na
1,3,5-Trimethylbenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
1,3-Dichloropropane	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
2,2-Dichloropropane	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
2-Chlorotoluene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
2-Hexanone	0/8	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
4-Chlorotoluene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Acetone	3/8	38	1.0	6.4	3.6	5.0 – 11	µg/L	S-6	nv	na	na
Benzene	2/10	20	21	36	6.6	1.0 – 10	µg/L	S-13	nv	na	na
Bromobenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Bromodichloromethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Bromoform	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Bromomethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Carbon disulfide	0/8	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Carbon tetrachloride	0/10	0	nd	nd	7.0	5.0 – 50	µg/L	na	nv	na	na
Chlorobenzene	1/10	10	8.8	8.8	2.2	1.0 – 10	µg/L	S-2	nv	na	na
Chloroethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Chloroform	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na

Table E.6.5-5, cont. Summary statistics for Great Western seep data by sampling event

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect	Acute WQS	Comparison to Acute WQS [a]: Detect > Acute	Comparison to Acute WQS [a]: Nondetect > Acute
Chloromethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
cis-1,2-Dichloroethene	4/4	100	29	5,400	1,900	na	µg/L	S-13	nv	na	na
cis-1,3-Dichloropropene	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Dibromochloromethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Dibromomethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Dichlorodifluoromethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Dichloromethane	0/10	0	nd	nd	5.4	1.0 – 50	µg/L	na	nv	na	na
Ethylbenzene	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Iodomethane	0/8	0	nd	nd	0.50	1.0	µg/L	na	nv	na	na
Isopropylbenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
iso-Propyltoluene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Methyl ethyl ketone	0/8	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
n-Butylbenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
n-Propylbenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
sec-Butylbenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Styrene	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
tert-Butylbenzene	0/4	0	nd	nd	3.9	1.0 – 10	µg/L	na	nv	na	na
Tetrachloroethene	4/10	40	2.6	180	22	1.0 – 10	µg/L	S-2	nv	na	na
Toluene	1/10	10	2.7	2.7	1.6	1.0 – 10	µg/L	S-2	nv	na	na
trans-1,2-Dichloroethene	3/10	30	16	110	20	1.0	µg/L	S-14	nv	na	na
trans-1,3-Dichloropropene	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
trans-1,4-Dichloro-2-butene	0/8	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Trichloroethene	3/10	30	6.0	110	14	1.0 – 10	µg/L	S-2	nv	na	na
Trichlorofluoromethane	0/10	0	nd	nd	1.4	1.0 – 10	µg/L	na	nv	na	na
Vinyl acetate	0/8	0	nd	nd	2.5	5.0	µg/L	na	nv	na	na
Vinyl chloride	4/10	40	3.8	1,600	340	1.0	µg/L	S-13	nv	na	na
Xylene (ortho)	1/10	10	2.8	2.8	1.6	1.0 – 10	µg/L	S-2	nv	na	na
Xylene (meta & para)	0/10	0	nd	nd	2.8	2.0 – 20	µg/L	na	nv	na	na
Total xylenes	1/10	10	2.8	2.8	3.0	nc	µg/L	S-2	nv	na	na

[a] Comparisons were not made to chronic water quality standards because chronic standards are based on 4-day average concentrations not to be exceeded more than once every three years. Because of the tidal cycle, comparison of intertidal seep samples to acute standards is more appropriate. Acute standards represent 1-hour average concentrations not to be exceeded more than once every three years on average.

E.6.6 Porewater

Table E.6.6-1. Summary statistics for Boeing Plant 2/Jorgensen porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
LDWRI-Peeper								
1,1,1,2-Tetrachloroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,1,1-Trichloroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,1,2,2-Tetrachloroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,1,2-Trichloroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,1,2-Trichlorotrifluoroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,1-Dichloroethane	1/10	10	0.3	0.3	0.1	0.2	µg/L	LDW-PW-B-PE-14
1,1-Dichloroethene	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,1-Dichloropropene	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,2,3-Trichlorobenzene	0/10	0	nd	nd	0.3	0.5	µg/L	na
1,2,3-Trichloropropane	0/10	0	nd	nd	0.3	0.5	µg/L	na
1,2,4-Trichlorobenzene	0/10	0	nd	nd	0.3	0.5	µg/L	na
1,2,4-Trimethylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.3	µg/L	na
1,2-Dibromo-3-chloropropane	0/10	0	nd	nd	1.0	2.0	µg/L	na
1,2-Dibromoethane (EDB)	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dichlorobenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dichloroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dichloropropane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,3,5-Trimethylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,3-Dichlorobenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,3-Dichloropropane	0/10	0	nd	nd	0.1	0.2	µg/L	na
1,4-Dichlorobenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
2,2-Dichloropropane	0/10	0	nd	nd	0.1	0.2	µg/L	na
2-Chloroethyl vinyl ether	0/10	0	nd	nd	0.3	0.5	µg/L	na

Table E.6.6-1, cont. Summary statistics for Boeing Plant 2/Jorgensen porewater

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect
2-Chlorotoluene	0/10	0	nd	nd	0.1	0.2	µg/L	na
2-Hexanone	0/10	0	nd	nd	0.5	1.0	µg/L	na
4-Chlorotoluene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Acetone	0/10	0	nd	nd	9.3	3.7 – 60	µg/L	na
Acrolein	0/10	0	nd	nd	2.5	5.0	µg/L	na
Acrylonitrile	0/10	0	nd	nd	0.5	1.0	µg/L	na
Benzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Bromobenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Bromochloromethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Bromodichloromethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Bromoethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Bromoform	0/10	0	nd	nd	0.1	0.2	µg/L	na
Bromomethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Carbon disulfide	0/10	0	nd	nd	0.1	0.2	µg/L	na
Carbon tetrachloride	0/10	0	nd	nd	0.1	0.2	µg/L	na
Chlorobenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Chloroethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Chloroform	0/10	0	nd	nd	0.1	0.2	µg/L	na
Chloromethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
cis-1,2-Dichloroethene	7/10	70	0.2	1.7	0.5	0.2	µg/L	LDW-PW-B-PE-11
cis-1,3-Dichloropropene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Dibromochloromethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Dibromomethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Dichloromethane	0/10	0	nd	nd	0.2	0.3	µg/L	na
Ethylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Hexachlorobutadiene	0/10	0	nd	nd	0.3	0.5	µg/L	na
Iodomethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Isopropylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Methyl ethyl ketone	0/10	0	nd	nd	0.5	1.0	µg/L	na

Table E.6.6-1, cont. Summary statistics for Boeing Plant 2/Jorgensen porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
Methyl isobutyl ketone	0/10	0	nd	nd	0.5	1.0	µg/L	na
Naphthalene	0/10	0	nd	nd	0.3	0.5	µg/L	na
n-Butylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
n-Propylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
p-Cymene	0/10	0	nd	nd	0.1	0.2	µg/L	na
sec-Butylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Styrene	0/10	0	nd	nd	0.1	0.2	µg/L	na
tert-Butylbenzene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Tetrachloroethene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Toluene	0/10	0	nd	nd	0.1	0.2	µg/L	na
Total xylenes	0/10	0	nd	nd	0.2	nc	µg/L	na
trans-1,2-Dichloroethene	0/10	0	nd	nd	0.1	0.2	µg/L	na
trans-1,3-Dichloropropene	0/10	0	nd	nd	0.1	0.2	µg/L	na
trans-1,4-Dichloro-2-butene	0/10	0	nd	nd	0.5	1.0	µg/L	na
Trichloroethene	2/10	20	0.2	0.2	0.1	0.2	µg/L	LDW-PW-B-PE-10 LDW-PW-B-PE-11
Trichlorofluoromethane	0/10	0	nd	nd	0.1	0.2	µg/L	na
Vinyl acetate	0/10	0	nd	nd	0.1	0.2	µg/L	na
Vinyl chloride	2/10	20	1.1	13	1.5	0.2	µg/L	LDW-PW-B-PE-11
Xylene (meta & para)	0/10	0	nd	nd	0.2	0.4	µg/L	na
Xylene (ortho)	0/10	0	nd	nd	0.1	0.2	µg/L	na
LDWRI-Porewater								
1,1,1,2-Tetrachloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,1,1-Trichloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,1,2,2-Tetrachloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,1,2-Trichloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,1,2-Trichlorotrifluoroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,1-Dichloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,1-Dichloroethene	0/6	0	nd	nd	0.1	0.2	µg/L	na

Table E.6.6-1, cont. Summary statistics for Boeing Plant 2/Jorgensen porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
1,1-Dichloropropene	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,2,3-Trichlorobenzene	0/6	0	nd	nd	0.3	0.5	µg/L	na
1,2,3-Trichloropropane	0/6	0	nd	nd	0.3	0.5	µg/L	na
1,2,4-Trichlorobenzene	0/6	0	nd	nd	0.3	0.5	µg/L	na
1,2,4-Trimethylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dibromo-3-chloropropane	0/6	0	nd	nd	1.0	2.0	µg/L	na
1,2-Dibromoethane (EDB)	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dichlorobenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dichloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,2-Dichloropropane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,3,5-Trimethylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,3-Dichlorobenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,3-Dichloropropane	0/6	0	nd	nd	0.1	0.2	µg/L	na
1,4-Dichlorobenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
2,2-Dichloropropane	0/6	0	nd	nd	0.1	0.2	µg/L	na
2-Chloroethyl vinyl ether	0/6	0	nd	nd	0.3	0.5	µg/L	na
2-Chlorotoluene	0/6	0	nd	nd	0.1	0.2	µg/L	na
2-Hexanone	0/6	0	nd	nd	0.5	1.0	µg/L	na
4-Chlorotoluene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Acetone	0/6	0	nd	nd	0.7	1.0 – 2.2	µg/L	na
Acrolein	0/6	0	nd	nd	2.5	5.0	µg/L	na
Acrylonitrile	0/6	0	nd	nd	0.5	1.0	µg/L	na
Benzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Bromobenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Bromochloromethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Bromodichloromethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Bromoethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Bromoform	0/6	0	nd	nd	0.1	0.2	µg/L	na
Bromomethane	0/6	0	nd	nd	0.1	0.2	µg/L	na

Table E.6.6-1, cont. Summary statistics for Boeing Plant 2/Jorgensen porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
Carbon disulfide	0/6	0	nd	nd	0.1	0.2	µg/L	na
Carbon tetrachloride	0/6	0	nd	nd	0.1	0.2	µg/L	na
Chlorobenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Chloroethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Chloroform	0/6	0	nd	nd	0.1	0.2	µg/L	na
Chloromethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
cis-1,2-Dichloroethene	0/6	0	nd	nd	0.1	0.2	µg/L	na
cis-1,3-Dichloropropene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Dibromochloromethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Dibromomethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Dichloromethane	0/6	0	nd	nd	0.2	0.3	µg/L	na
Ethylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Hexachlorobutadiene	0/6	0	nd	nd	0.3	0.5	µg/L	na
Iodomethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Isopropylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Methyl ethyl ketone	0/6	0	nd	nd	0.5	1.0	µg/L	na
Methyl isobutyl ketone	0/6	0	nd	nd	0.5	1.0	µg/L	na
Naphthalene	0/6	0	nd	nd	0.3	0.5	µg/L	na
n-Butylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
n-Propylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
p-Cymene	0/6	0	nd	nd	0.1	0.2	µg/L	na
sec-Butylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Styrene	0/6	0	nd	nd	0.1	0.2	µg/L	na
tert-Butylbenzene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Tetrachloroethene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Toluene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Total xylenes	0/6	0	nd	nd	0.2	nc	µg/L	na
trans-1,2-Dichloroethene	0/6	0	nd	nd	0.1	0.2	µg/L	na
trans-1,3-Dichloropropene	0/6	0	nd	nd	0.1	0.2	µg/L	na

Table E.6.6-1, cont. Summary statistics for Boeing Plant 2/Jorgensen porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
trans-1,4-Dichloro-2-butene	0/6	0	nd	nd	0.5	1.0	µg/L	na
Trichloroethene	0/6	0	nd	nd	0.1	0.2	µg/L	na
Trichlorofluoromethane	0/6	0	nd	nd	0.1	0.2	µg/L	na
Vinyl acetate	0/6	0	nd	nd	0.1	0.2	µg/L	na
Vinyl chloride	0/6	0	nd	nd	0.1	0.2	µg/L	na
Xylene (meta & para)	0/6	0	nd	nd	0.2	0.4	µg/L	na
Xylene (ortho)	0/6	0	nd	nd	0.1	0.2	µg/L	na

Table E.6.6-2. Summary statistics for Great Western porewater

Chemical	Detection Frequency Ratio	%	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Location of Maximum Detect
LDWRI-Peeper								
1,1,1,2-Tetrachloroethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,1,1-Trichloroethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,1,2,2-Tetrachloroethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,1,2-Trichloroethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,1,2-Trichlorotrifluoroethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,1-Dichloroethane	8/10	80	0.4	16	5.0	0.2	µg/L	LDW-PW-G-PE-06
1,1-Dichloroethene	3/10	30	0.3	4.9	0.7	0.2 – 0.4	µg/L	LDW-PW-G-PE-06
1,1-Dichloropropene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,2,3-Trichlorobenzene	0/10	0	nd	nd	0.3	0.5 – 1.0	µg/L	na
1,2,3-Trichloropropane	0/10	0	nd	nd	0.3	0.5 – 1.0	µg/L	na
1,2,4-Trichlorobenzene	0/10	0	nd	nd	0.3	0.5 – 1.0	µg/L	na
1,2,4-Trimethylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,2-Dibromo-3-chloropropane	0/10	0	nd	nd	1.2	2.0 – 4.0	µg/L	na
1,2-Dibromoethane (EDB)	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,2-Dichlorobenzene	3/10	30	0.5	1.2	0.3	0.2 – 0.4	µg/L	LDW-PW-G-PE-08
1,2-Dichloroethane	2/10	20	7.4	15	2.0	0.2 – 0.4	µg/L	LDW-PW-G-PE-05
1,2-Dichloropropane	2/10	20	1.7	2.5	0.5	0.2 – 0.4	µg/L	LDW-PW-G-PE-05
1,3,5-Trimethylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,3-Dichlorobenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,3-Dichloropropane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
1,4-Dichlorobenzene	2/10	20	0.3	0.3	0.2	0.2 – 0.4	µg/L	LDW-PW-G-PE-08 LDW-PW-G-PE-06
2,2-Dichloropropane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
2-Chloroethyl vinyl ether	0/10	0	nd	nd	0.3	0.5 – 1.0	µg/L	na
2-Chlorotoluene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
2-Hexanone	0/10	0	nd	nd	0.6	1.0 – 2.0	µg/L	na

Table E.6.6-2, cont. Summary statistics for Great Western porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
4-Chlorotoluene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Acetone	0/10	0	nd	nd	13	2.6 – 71	µg/L	na
Acrolein	0/10	0	nd	nd	3.0	5.0 – 10	µg/L	na
Acrylonitrile	0/10	0	nd	nd	0.60	1.0 – 2.0	µg/L	na
Benzene	1/10	10	9.4	9.4	2.0	0.2 – 4.7	µg/L	LDW-PW-G-PE-06
Bromobenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Bromochloromethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Bromodichloromethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Bromoethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Bromoform	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Bromomethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Carbon disulfide	5/10	50	0.2	0.7	0.2	0.2 – 0.4	µg/L	LDW-PW-G-PE-06
Carbon tetrachloride	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Chlorobenzene	4/10	40	0.3	1.4	0.3	0.2 – 0.4	µg/L	LDW-PW-G-PE-06
Chloroethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Chloroform	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Chloromethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
cis-1,2-Dichloroethene	10/10	100	0.5	2,900	400	na	µg/L	LDW-PW-G-PE-06
cis-1,3-Dichloropropene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Dibromochloromethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Dibromomethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Dichloromethane	0/10	0	nd	nd	0.2	0.3 – 0.6	µg/L	na
Ethylbenzene	0/10	0	nd	nd	0.2	0.2 – 1.3	µg/L	na
Hexachlorobutadiene	0/10	0	nd	nd	0.3	0.5 – 1.0	µg/L	na
Iodomethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Isopropylbenzene	2/10	20	0.2	0.3	0.2	0.2 – 0.4	µg/L	LDW-PW-G-PE-08
Methyl ethyl ketone	0/10	0	nd	nd	0.7	1.0 – 2.4	µg/L	na
Methyl isobutyl ketone	0/10	0	nd	nd	0.6	1.0 – 2.0	µg/L	na
Naphthalene	0/10	0	nd	nd	0.3	0.5 – 1.0	µg/L	na

Table E.6.6-2, cont. Summary statistics for Great Western porewater

Chemical	Detection Frequency Ratio	Detection Frequency %	Concentration Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	Location of Maximum Detect
n-Butylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
n-Propylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
p-Cymene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
sec-Butylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Styrene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
tert-Butylbenzene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Tetrachloroethene	2/10	20	0.4	1.1	0.3	0.2 – 0.4	µg/L	LDW-PW-G-PE-05
Toluene	5/10	50	0.3	3.5	0.6	0.2 – 0.4	µg/L	LDW-PW-G-PE-06
Total xylenes	0/10	0	nd	nd	0.3	nc	µg/L	na
trans-1,2-Dichloroethene	7/10	70	0.3	21 J	4.0	0.2 – 0.4	µg/L	LDW-PW-G-PE-06
trans-1,3-Dichloropropene	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
trans-1,4-Dichloro-2-butene	0/10	0	nd	nd	0.6	1.0 – 2.0	µg/L	na
Trichloroethene	4/10	40	0.4	2.5	0.5	0.2 – 0.4	µg/L	LDW-PW-G-PE-02
Trichlorofluoromethane	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Vinyl acetate	0/10	0	nd	nd	0.1	0.2 – 0.4	µg/L	na
Vinyl chloride	10/10	100	0.4	2,500	300	na	µg/L	LDW-PW-G-PE-06
Xylene (meta & para)	0/10	0	nd	nd	0.3	0.4 – 0.8	µg/L	na
Xylene (ortho)	0/10	0	nd	nd	0.2	0.2 – 1.3	µg/L	na
LDWRI-Porewater								
1,1,1,2-Tetrachloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1,1-Trichloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1,2,2-Tetrachloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1,2-Trichloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1,2-Trichlorotrifluoroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1-Dichloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1-Dichloroethene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,1-Dichloropropene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,2,3-Trichlorobenzene	0/6	0	nd	nd	0.6	0.5 – 2.5	µg/L	na
1,2,3-Trichloropropane	0/6	0	nd	nd	0.6	0.5 – 2.5	µg/L	na

Table E.6.6-2, cont. Summary statistics for Great Western porewater

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect
1,2,4-Trichlorobenzene	0/6	0	nd	nd	0.6	0.5 – 2.5	µg/L	na
1,2,4-Trimethylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,2-Dibromo-3-chloropropane	0/6	0	nd	nd	2.0	2.0 – 10	µg/L	na
1,2-Dibromoethane (EDB)	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,2-Dichlorobenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,2-Dichloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,2-Dichloropropane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,3,5-Trimethylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,3-Dichlorobenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,3-Dichloropropane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
1,4-Dichlorobenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
2,2-Dichloropropane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
2-Chloroethyl vinyl ether	0/6	0	nd	nd	0.6	0.5 – 2.5	µg/L	na
2-Chlorotoluene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
2-Hexanone	0/6	0	nd	nd	1.2	1.0 – 5.0	µg/L	na
4-Chlorotoluene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Acetone	0/6	0	nd	nd	1.8	1.4 – 6.2	µg/L	na
Acrolein	0/6	0	nd	nd	5.8	5.0 – 25	µg/L	na
Acrylonitrile	0/6	0	nd	nd	1.2	1.0 – 5.0	µg/L	na
Benzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Bromobenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Bromochloromethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Bromodichloromethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Bromoethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Bromoform	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Bromomethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Carbon disulfide	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Carbon tetrachloride	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Chlorobenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na

Table E.6.6-2, cont. Summary statistics for Great Western porewater

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect
Chloroethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Chloroform	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Chloromethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
cis-1,2-Dichloroethene	0/6	0	nd	nd	0.4	0.2 – 2.0	µg/L	na
cis-1,3-Dichloropropene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Dibromochloromethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Dibromomethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Dichloromethane	0/6	0	nd	nd	0.4	0.3 – 1.5	µg/L	na
Ethylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Hexachlorobutadiene	0/6	0	nd	nd	0.6	0.5 – 2.5	µg/L	na
Iodomethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Isopropylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Methyl ethyl ketone	0/6	0	nd	nd	1.2	1.0 – 5.0	µg/L	na
Methyl isobutyl ketone	0/6	0	nd	nd	1.2	1.0 – 5.0	µg/L	na
Naphthalene	0/6	0	nd	nd	0.6	0.5 – 2.5	µg/L	na
n-Butylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
n-Propylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
p-Cymene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
sec-Butylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Styrene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
tert-Butylbenzene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Tetrachloroethene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Toluene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Total xylenes	0/6	0	nd	nd	0.5	nc	µg/L	na
trans-1,2-Dichloroethene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
trans-1,3-Dichloropropene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
trans-1,4-Dichloro-2-butene	0/6	0	nd	nd	1.2	1.0 – 5.0	µg/L	na
Trichloroethene	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Trichlorofluoromethane	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na

Table E.6.6-2, cont. Summary statistics for Great Western porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit	
Vinyl acetate	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na
Vinyl chloride	0/6	0	nd	nd	0.4	0.2 – 1.6	µg/L	na
Xylene (meta & para)	0/6	0	nd	nd	0.5	0.4 – 2.0	µg/L	na
Xylene (ortho)	0/6	0	nd	nd	0.2	0.2 – 1.0	µg/L	na

Table E.6.6-3. Summary statistics for Rhône-Poulenc porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Criteria		Comparison to WQS			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit		Chronic WQS	Acute WQS	Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Metals and trace elements														
Aluminum	6/15	40	790	10,500	1,000	300	µg/L	SB-18	na	na	na	na	na	na
Arsenic	0/15	0	nd	nd	230	450	µg/L	na	36	69	0	0	0	15
Barium	15/15	100	14 J	217 J	70	na	µg/L	SH-05	na	na	na	na	na	na
Beryllium	0/15	0	nd	nd	5	10	µg/L	na	na	na	na	na	na	na
Cadmium	0/15	0	nd	nd	20	30	µg/L	na	9.3	42	0	0	15	0
Calcium	15/15	100	40,900	323,000	212,000	na	µg/L	SB-18	na	na	na	na	na	na
Chromium	0/15	0	nd	nd	50	100	µg/L	na	50	1,100	0	0	15	0
Cobalt	0/15	0	nd	nd	30	50	µg/L	na	na	na	na	na	na	na
Copper	4/15	27	5.4	264	30	5	µg/L	SHB-5	3.1	4.8	0	4	0	11
Iron	12/15	80	560	41,700	8,000	200	µg/L	SB-18	na	na	na	na	na	na
Lead	0/15	0	nd	nd	130	250	µg/L	na	8.1	210	0	0	0	15
Magnesium	15/15	100	127,000	1,030,000	650,000	na	µg/L	SB-18	na	na	na	na	na	na
Manganese	12/15	80	25	1,890	600	20	µg/L	SH-01	na	na	na	na	na	na
Mercury	10/15	67	0.0016	0.408	0.069	0.2	µg/L	SB-18	0.025	1.8	4	0	5	0
Nickel	0/15	0	nd	nd	50	100	µg/L	na	8.2	74	0	0	0	15
Potassium	15/15	100	47,200	292,000	180,000	na	µg/L	SB-18	na	na	na	na	na	na
Sodium	15/15	100	1,290,000	8,310,000	5,120,000	na	µg/L	SB-18	na	na	na	na	na	na
Vanadium	0/15	0	nd	nd	50	100	µg/L	na	na	na	na	na	na	na
Zinc	3/15	20	263	1,560	200	50	µg/L	SB-18	81	90	0	3	0	0
PAHs														
Benzo(a)pyrene	1/9	11	0.0320 J	0.0320 J	0.17	0.37	µg/L	SH-02	na	na	na	na	na	na
Benzo(b)fluoranthene	1/9	11	0.0390 J	0.0390 J	0.17	0.37	µg/L	SH-02	na	na	na	na	na	na
Benzo(k)fluoranthene	1/9	11	0.0390 J	0.0390 J	0.17	0.37	µg/L	SH-02	na	na	na	na	na	na
Total benzofluoranthenes	1/9	11	0.0780 J	0.0780 J	0.17	nc	µg/L	SH-02	na	na	na	na	na	na
Fluoranthene	1/9	11	0.26 J	0.26 J	0.19	0.37	µg/L	SH-02	na	na	na	na	na	na
Pyrene	1/9	11	0.32 J	0.32 J	0.20	0.37	µg/L	SH-02	na	na	na	na	na	na
Total HPAH	1/9	11	0.69 J	0.69 J	0.24	nc	µg/L	SH-02	na	na	na	na	na	na
Carcinogenic PAHs - Mammal	1/9	11	0.0398 J	0.0398 J	0.10	0.22	µg/L	SH-02	na	na	na	na	na	na
Total PAH	1/9	11	0.69 J	0.69 J	0.24	nc	µg/L	SH-02	na	na	na	na	na	na

Table E.6.6-3, cont. Summary statistics for Rhône-Poulenc porewater

Chemical	Detection Frequency: Ratio	Detection Frequency: %	Concentration: Minimum Detect	Concentration: Maximum Detect	Concentration: Calculated Mean	Concentration: RL or Range of RLs	Concentration: Unit	Location of Maximum Detect	Criteria: Chronic WQS	Criteria: Acute WQS	Comparison to WQS: Detect > Chronic and ≤Acute	Comparison to WQS: Detect > Acute	Comparison to WQS: Nondetect > Chronic and ≤ Acute	Comparison to WQS: Nondetect > Acute
Phthalates														
Bis(2-ethylhexyl)phthalate	5/9	56	2.0	390	45	1.9	µg/L	SH-02	na	na	na	na	na	na
Diethyl phthalate	0/9	0	nd	nd	0.40	0.37 – 3.7	µg/L	na	na	na	na	na	na	na
Other SVOCs														
Biphenyl	2/9	22	0.0260 J	0.0320 J	0.34	0.37 – 3.7	µg/L	SH-04	na	na	na	na	na	na
Caprolactam	8/9	89	1.5 J	7.5 J	3.7	1.9	µg/L	SH-01	na	na	na	na	na	na
Volatile organic compounds														
Benzene	0/9	0	nd	nd	0.50	1	µg/L	na	na	na	na	na	na	na
Ethylbenzene	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na	na	na	na
Toluene	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na	na	na	na
Xylene (ortho)	0/9	0	nd	nd	1.0	2	µg/L	na	na	na	na	na	na	na
Xylene (meta & para)	0/9	0	nd	nd	2.0	4	µg/L	na	na	na	na	na	na	na
Total xylenes	0/9	0	nd	nd	2.0	nc	µg/L	na	na	na	na	na	na	na

Table E.6.6-4. Summary statistics for EPA SI porewater

Chemical	Detection Frequency		Concentration					Location of Maximum Detect	Criteria		Comparison to WQS			
	Ratio	%	Minimum Detect	Maximum Detect	Calculated Mean	RL or Range of RLs	Unit		Chronic WQS	Acute WQS	Detect > Chronic and ≤Acute	Detect > Acute	Nondetect > Chronic and ≤ Acute	Nondetect > Acute
Metals and trace elements														
Aluminum	8/15	53	77	378	100	50 – 77	µg/L	DR055	na	na	na	na	na	na
Antimony	1/15	7	30 J	30 J	20	5 – 50	µg/L	DR244	na	na	na	na	na	na
Arsenic	12/15	80	26	114	50	10 – 30	µg/L	DR244	36	69	4	4	0	0
Barium	15/15	100	4 J	214	60	na – na	µg/L	DR262	na	na	na	na	na	na
Beryllium	0/15	0	nd	nd	3	5 – 5	µg/L	na	na	na	na	na	na	na
Cadmium	4/15	27	4 J	4 J	3	5	µg/L	DR181 DR147 DR109 DR244	9.3	42	0	0	0	0
Calcium	15/15	100	15,300	347,000	300,000	na	µg/L	DR018	na	na	na	na	na	na
Chromium	0/15	0	nd	nd	5	10	µg/L	na	50	1,100	0	0	0	0
Cobalt	0/15	0	nd	nd	5	10	µg/L	na	na	na	na	na	na	na
Copper	4/15	27	1	5	2	4	µg/L	DR262 DR109	3.1	4.8	0	2	11	0
Iron	15/15	100	186	18,300	9,000	na	µg/L	DR244	na	na	na	na	na	na
Lead	13/15	87	0.6 J	4	1	1	µg/L	DR109	8.1	210	0	0	0	0
Magnesium	15/15	100	51,000	1,100,000	890,000	na	µg/L	DR018 DR055	na	na	na	na	na	na
Manganese	15/15	100	13	5,440	2,000	na	µg/L	DR244	na	na	na	na	na	na
Mercury	0/15	0	nd	nd	0.05	0.1	µg/L	na	0.025	1.8	0	0	15	0
Nickel	0/15	0	nd	nd	10	20 – 30	µg/L	na	8.2	74	0	0	15	0
Potassium	15/15	100	41,600	373,000	290,000	na	µg/L	DR055	na	na	na	na	na	na
Selenium	0/15	0	nd	nd	10	20 – 30	µg/L	na	na	na	na	na	na	na
Silver	6/15	40	0.3 J	0.5 J	0.4	1	µg/L	DR301	na	1.9	na	0	na	0
Sodium	15/15	100	1,160,000	9,730,000	7,800,000	na	µg/L	DR038	na	na	na	na	na	na
Thallium	0/15	0	nd	nd	0.5	1	µg/L	na	na	na	na	na	na	na
Tin	0/15	0	nd	nd	8	10	µg/L	na	na	na	na	na	na	na
Vanadium	15/15	100	3 J	22	10	na	µg/L	DR244	na	na	na	na	na	na
Zinc	3/15	20	4 J	6 J	5	10	µg/L	DR140	81	90	0	0	0	0
Organometals														
Monobutyltin as ion	0/15	0	nd	nd	0.025	0.05	µg/L	na	na	na	na	na	na	na
Dibutyltin as ion	4/15	27	0.0070 J	0.010 J	0.021	0.05	µg/L	DR038 DR018 DR055	na	na	na	na	na	na
Tributyltin as ion	8/15	53	0.0080 J	0.080 J	0.026	0.05	µg/L	DR055	na	na	na	na	na	na
Tetrabutyltin as ion	0/15	0	nd	nd	0.025	0.05	µg/L	na	na	na	na	na	na	na

E.7 Concentrations of Arsenic and cPAHs in Sediment Corresponding to Tissue RBTCs

This section of Appendix E presents details of the back-calculation of arsenic and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) concentrations in sediment corresponding to tissue risk-based threshold concentrations (RBTCs).

As discussed in detail in Sections 8.3.2 and 8.3.3 of the main body of the remedial investigation (RI), the clam tissue-to-sediment relationships for arsenic and cPAHs are too uncertain to develop RBTCs for sediment. This result is not surprising given the feeding behavior of Eastern soft-shell clam (*Mya arenaria*), which is the primary clam species of sufficient size and abundance within the LDW to be consumed by humans. *M. arenaria* are filter feeders and can process large quantities of water (4 to 6 L/hr) while feeding on suspended particulates in the water column (Brown et al. 1994). Thus, water and suspended material in the water are likely to be important sources of bioaccumulated chemicals (Abraham and Dillon 1986). This conclusion is supported by Foster et al. (1987), who conducted an experiment using sediment from Chesapeake Bay to evaluate the bioaccumulation of sediment-sorbed chemicals in a filter-feeding clam (*M. arenaria*) and a deposit-feeding clam (*Macoma balthica*). The *M. baltica* clams bioaccumulated the chemicals (naphthalene, diphenyl ether, di-n-octyl phthalate, 4,4′-1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane [DDT], and chrysene) at measurable rates over the 12-day exposure period, whereas *M. arenaria* did not show bioaccumulation of any of the sediment chemicals (Foster et al. 1987). Thus, in this study, contaminated sediment did not influence chemical concentrations in the tissues of filter-feeding clams.

As discussed in the human health risk assessment (HHRA) (Windward 2007), greater than 93% of the arsenic and cPAH risk associated with seafood consumption for all scenarios evaluated in the baseline HHRA is from the consumption of clams. Thus, if sediment RBTCs were to be developed for arsenic and cPAHs for the seafood consumption pathway, there would have to be significant regressions between the concentrations of these chemicals in sediment and clam tissue.

To evaluate such relationships, tissue samples of *M. arenaria* were collected from the LDW along with co-located sediment samples in 2004 (Windward 2005); the tissue samples were analyzed for a number of analytes, including inorganic arsenic and cPAHs, and the sediment samples were analyzed for a number of analytes, including total arsenic, cPAHs, grain size, and total organic carbon (TOC). Co-located clam tissue and sediment samples were also collected and analyzed for total and inorganic arsenic in clam tissue and total arsenic in sediment in 2007. Inorganic arsenic is the form of arsenic of concern in tissue samples because it is the form associated with human toxicity (both carcinogenic and non-carcinogenic).

The relationships between inorganic arsenic in clams and total arsenic in sediment and between cPAHs in clams and cPAHs in sediment were evaluated using a regression model. Because *M. arenaria* are filter feeders, the appropriate areal extent of the source of suspended particulates is uncertain and may be greater than the co-located composite sediment sample collected with each composite clam tissue sample. Thus, the regression relationships between the concentrations of arsenic and cPAHs in clam tissue and in sediment were evaluated at three spatial scales. The regression statistics for the larger intertidal areas were similar to those for the co-located samples using 2004 data (see Tables 8-15 and 8-19 in the main body of the RI), and, therefore, the regressions using sediment data for larger areas were not investigated further. Figure E.7-1 and Table E.7-1 and Figure E.7-2 and Table E.7-2 present the regressions and the untransformed data for arsenic (2004 and 2007 data) and cPAHs (2004 data), respectively. The regressions were discussed in detail in Sections 8.3.2 and 8.3.3 (in the main body of the RI) and were found to be too uncertain to calculate sediment RBTCs.

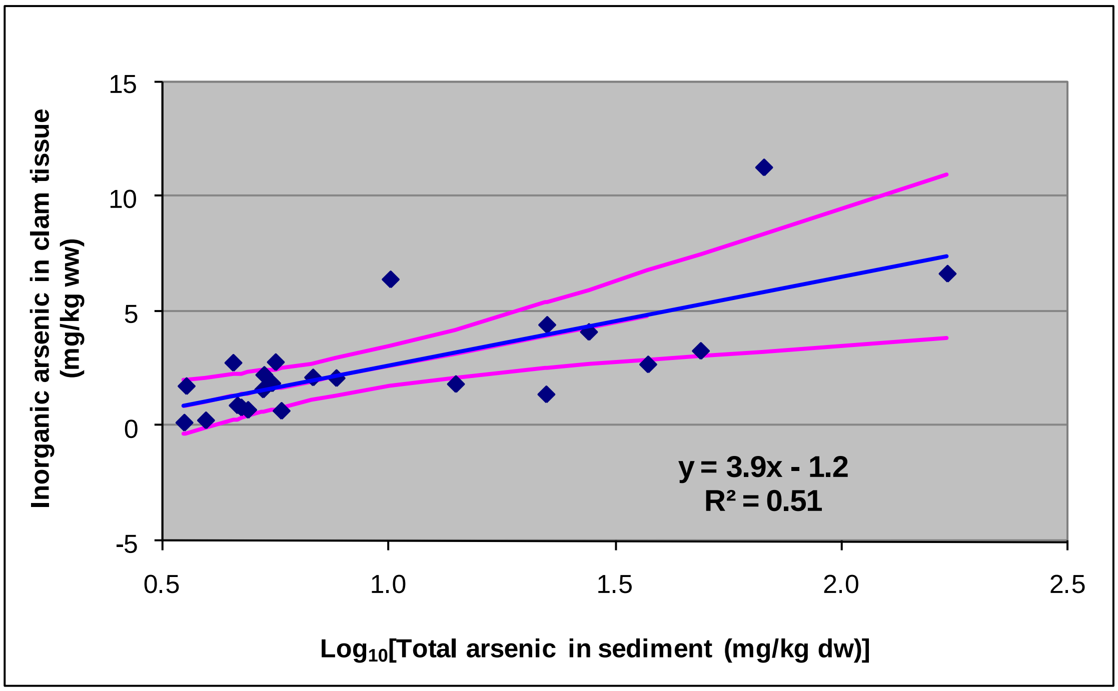


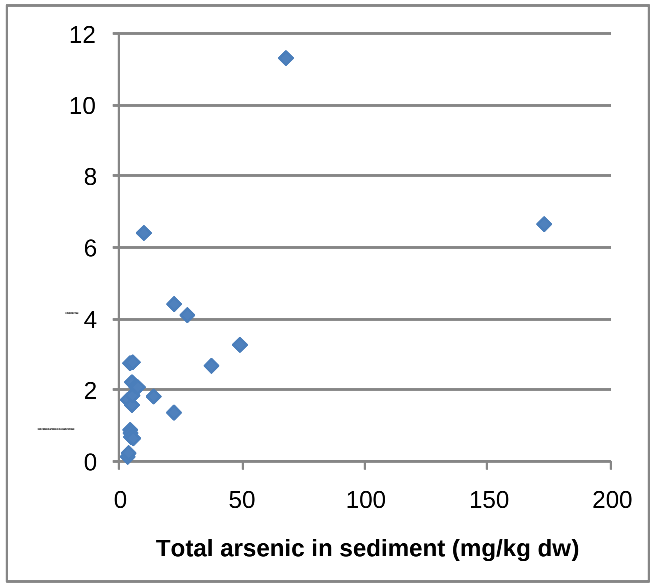
Figure E.7-1. Regression relationship for inorganic arsenic in clam tissue and total arsenic in sediment

Table E.7-1. Arsenic data and regression equation

Year	Total Arsenic Concentration in Sediment (mg/kg dw)	Inorganic Arsenic Concentration in Tissue (mg/kg ww)
2004	3.53	0.132
2007	3.57	1.73
2004	3.94	0.23
2007	4.53	2.75
2004	4.63	0.885
2004	4.72	0.795
2007	4.88	0.690
2007	5.27	1.58
2007	5.30	2.22
2004	5.52	1.85
2007	5.62	2.78
2004	5.79	0.648
2004	6.80	2.11
2007	7.66	2.08
2007	10.1	6.48
2007	14.1	1.82
2007	22.3	1.37
2007	22.4	4.41
2007	27.7	4.10
2007	37.5	2.68
2004	49.0	3.27
2007	67.6	11.3
2007	172	6.65

$$[As]_{tissue} = 3.9(\mathrm{Log}_{10}([As]_{sediment}))-1.2$$

$$10\text{^}\mathrm{Log}_{10}\,([As]_{sediment}) = ([As]_{tissue} + 1.2)/3.9$$



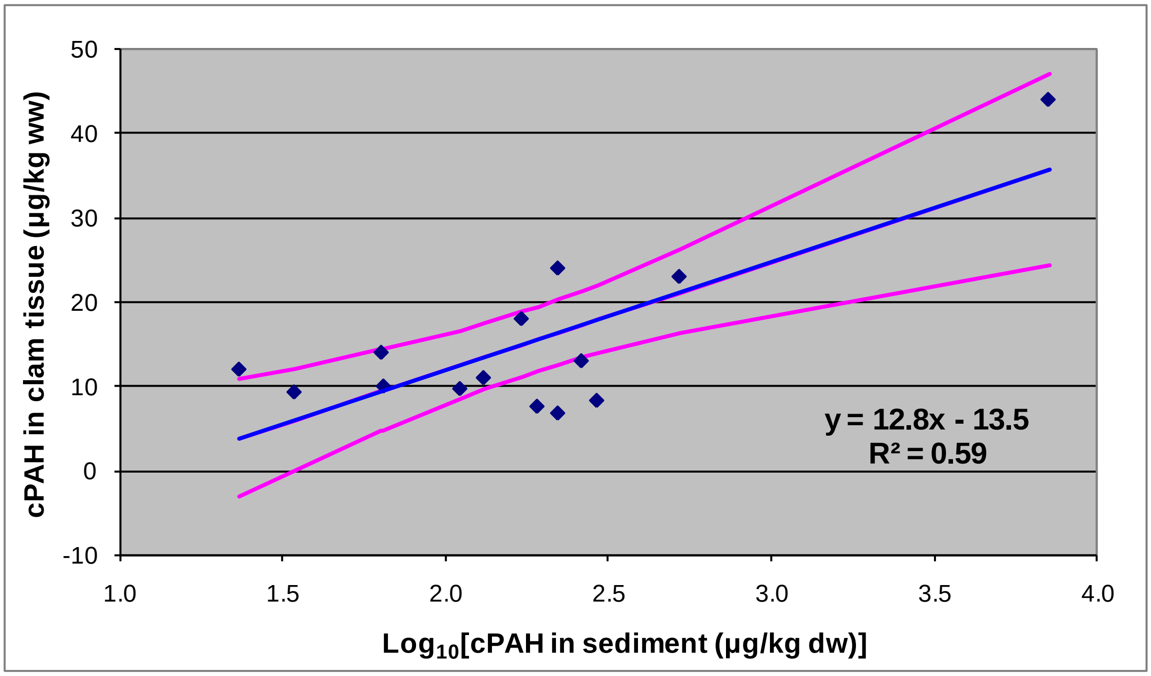


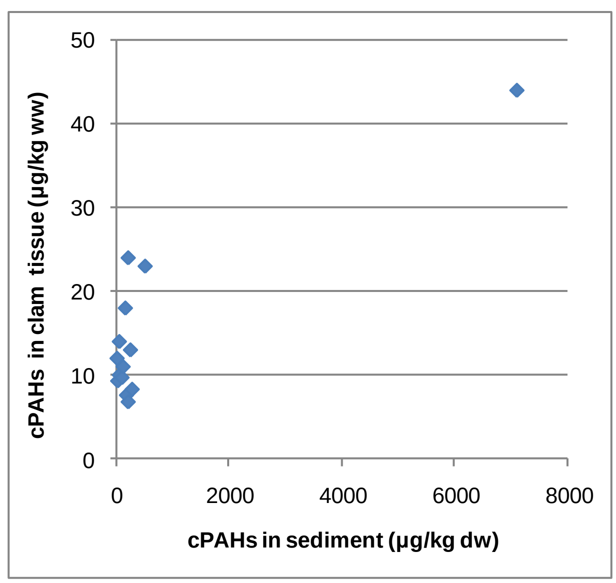
Figure E.7-2. Regression relationship for cPAHs in clam tissue and sediment

Table E.7-2. cPAH data and regression equation

Year	cPAH TEQ in Sediment (µg/kg dw)	cPAH TEQ in Tissue (µg/kg dw)
2004	23	12
2004	34	9.3
2004	63	14
2004	64	10
2004	110	9.7
2004	130	11
2004	170	18
2004	190	7.6
2004	220	6.8
2004	220	24
2004	260	13
2004	290	8.3
2004	520	23
2004	7,100	44

$$[cPAH]_{tissue} = 12.8(\log([cPAH]_{sediment}))-13.5$$

$$10^{\wedge}\log([cPAH]_{sediment}) = ([cPAH]_{tissue} + 13.5)/12.8$$



Nevertheless, at the request of EPA, the regression relationships were used to "back-calculate" the sediment concentrations that corresponded to the tissue RBTCs presented in Table E.7-3. Because the regressions are not expected to be predictive given the feeding behavior of *M. arenaria*, the development of these sediment concentrations may falsely raise expectations regarding the potential success of sediment cleanup in reducing seafood consumption risks for arsenic and cPAHs. Therefore, this exercise should be viewed as only informational.

Table E.7-3. Tissue RBTCs estimated from HHRA RME seafood consumption scenarios

Chemical	Seafood Consumption Scenario	Unit (ww)	Tissue RBTC[a]			
			Excess Cancer Risk			Non-Cancer Hazard
			1×10^{-6}	1×10^{-5}	1×10^{-4}	HQ = 1
Arsenic (inorganic)	adult tribal RME (Tulalip data)	mg/kg	0.00056	0.0056	0.056	0.25
	child tribal RME (Tulalip data)	mg/kg	0.0030	0.030	0.30	0.12
	adult API RME	mg/kg	0.0019	0.019	0.19	0.37
cPAHs[b]	adult tribal RME (Tulalip data)	µg/kg	0.11	1.1	11	na
	child tribal RME (Tulalip data)[c]	µg/kg	0.12	1.2	12	na
	adult API RME	µg/kg	0.39	3.9	39	na

[a] Tissue RBTCs represent ingestion-weighted average concentrations across different seafood categories. Tissue concentrations in individual seafood categories may be higher or lower than the tissue RBTC, but the average concentration in all resident seafood consumed must equal the tissue RBTC in order to result in the specified risk threshold.

[b] cPAH concentrations are expressed in terms of benzo(a)pyrene equivalents.

[c] Because of the potential for increased susceptibility of children to carcinogens with mutagenic activity, as described in EPA guidance (2005), the risk estimate for children for cPAHs is based on dose adjustments across the 0-to-6-year age range of children (see Section B.5.1 of the HHRA (Windward 2007) for more information).

API – Asian and Pacific Islander
cPAH – carcinogenic polycyclic aromatic hydrocarbon
EPA – US Environmental Protection Agency
HHRA – human health risk assessment
HQ – hazard quotient
na – not applicable
RBTC – risk-based threshold concentration
RME – reasonable maximum exposure
ww – wet weight

Sediment concentrations of total arsenic that corresponded to tissue RBTCs for the reasonable maximum exposure (RME) seafood consumption scenarios (for carcinogenic risks between 1×10^{-6} and 1×10^{-4}, and a non-cancer hazard quotient [HQ] < 1) all fall between 2.1 and 2.6 mg/kg dw, even though the tissue RBTCs spanned 3 orders of magnitude (Table E.7-4). Inverse prediction confidence intervals around these estimated sediment concentrations can also be calculated (Zar 1984); these confidence intervals spanned an order of magnitude. All of the estimated sediment arsenic concentrations (and even the upper confidence limits) are below the range of upstream sediment concentrations (see Section 7.2 in the main body of the RI).

Table E.7-4. Concentrations of arsenic in sediment that corresponded to tissue RBTCs

Risk Level	Scenario	Inorganic Arsenic Tissue RBTC (mg/kg ww)	Corresponding Sediment Total Arsenic Concentration (mg/kg dw)	Sediment LCL	Sediment UCL
1×10^{-6}	adult tribal RME (Tulalip data)	0.00056	2.1	0.52	5.19
1×10^{-6}	child tribal RME (Tulalip data)	0.003	2.1	0.52	5.19
1×10^{-6}	adult API RME	0.0019	2.1	0.52	5.19
1×10^{-5}	adult tribal RME (Tulalip data)	0.0056	2.1	0.52	5.20
1×10^{-5}	child tribal RME (Tulalip data)	0.03	2.1	0.54	5.23
1×10^{-5}	adult API RME	0.019	2.1	0.53	5.22
1×10^{-4}	adult tribal RME (Tulalip data)	0.056	2.1	0.56	5.28
1×10^{-4}	child tribal RME (Tulalip data)	0.3	2.5	0.74	5.70
1×10^{-4}	adult API RME	0.19	2.3	0.65	5.50
HQ = 1	adult tribal RME (Tulalip data)	0.25	2.4	0.70	5.61
HQ = 1	child tribal RME (Tulalip data)	0.12	2.2	0.60	5.38
HQ = 1	adult API RME	0.37	2.6	0.80	5.83

Note: None of the corresponding sediment concentrations were within the range of sediment concentrations used in the regression.

API – Asian and Pacific Islander
dw – dry weight
HQ – hazard quotient
LCL – lower confidence limit on the mean
RBTC – risk-based threshold concentration
RME – reasonable maximum exposure
UCL – upper confidence limit on the mean
ww – wet weight

cPAH toxic equivalents (TEQs) in sediment that corresponded to clam tissue RBTCs for the RME seafood consumption scenarios (for carcinogenic risks between 1 x 10^{-6} and 1 x 10^{-5}) ranged from 12 to 23 µg/kg dw and the corresponding confidence limits spanned 2 orders of magnitude (Table E.7-5). Sediment TEQs that corresponded to 1 x 10^{-4} tissue RBTCs for the adult and child tribal RME scenarios were 83 and 100 µg/kg dw, respectively, with corresponding confidence limits that spanned 1 order of magnitude. All of these sediment TEQs are less than the lower end of the range of upstream sediment concentrations (see Section 7.2 in the main body of the RI). The sediment TEQ for the 1 x 10^{-4} adult Asian and Pacific Islander (API) RME seafood consumption scenario (13,000 µg/kg dw) was much higher than the range of upstream sediment concentrations and the baseline LDW-wide spatially weighted average concentration (SWAC) for cPAHs (380 µg/kg dw).

Table E.7-5. cPAH TEQs in sediment that corresponded to tissue RBTCs

Risk Level	Scenario	Tissue RBTC (µg/kg ww)	Corresponding Sediment TEQ (µg/kg dw)	Sediment LCL	Sediment UCL
1×10^{-6}	adult tribal RME (Tulalip data)	0.11	12	0.54	34
1×10^{-6}	child tribal RME (Tulalip data)	0.12	12	0.54	35
1×10^{-6}	adult API RME	0.39	12	0.60	36
1×10^{-5}	adult tribal RME (Tulalip data)	1.1	14	0.77	39
1×10^{-5}	child tribal RME (Tulalip data)	1.2	14	0.80	40
1×10^{-5}	adult API RME	3.9	**23**	2.1	57
1×10^{-4}	adult tribal RME (Tulalip data)	11	**83**	24	165
1×10^{-4}	child tribal RME (Tulalip data)	12	**100**	33	199
1×10^{-4}	adult API RME	39	13,000	2,640	1,500,000

API – Asian and Pacific Islander
cPAH – carcinogenic polycyclic aromatic hydrocarbon
dw – dry weight
LCL – lower confidence limit on the mean
RBTC – risk-based threshold concentration
RME – reasonable maximum exposure
TEQ – toxic equivalent
UCL – upper confidence limit on the mean
ww – wet weight

Bold identifies corresponding sediment concentrations that were within the range of sediment concentrations used in the regression.

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