

Appendix G
Supporting Data
2010 Regional Stations
Sediment Conditions

Appendix G.1

Summary of the constituents that make up total DDT, total HCH, total PAH, and total PCB in each sediment sample collected as part of the 2010 regional survey.

Station	Class	Constituent	Value	Units
8004	DDT	p,p-DDE	360	ppt
8005	DDT	p,p-DDE	200	ppt
8005	PCB	PCB 138	42	ppt
8006	DDT	p,p-DDE	390	ppt
8007	DDT	p,p-DDE	<MDL	ppt
8008	DDT	p,p-DDE	170	ppt
8009	DDT	o,p-DDD	45	ppt
8009	DDT	p,p-DDE	340	ppt
8011	DDT	p,p-DDE	440	ppt
8011	PCB	PCB 153/168	38	ppt
8012	DDT	p,p-DDD	1300	ppt
8012	DDT	p,p-DDE	1500	ppt
8012	DDT	p,p-DDT	590	ppt
8012	HCH	HCH, Beta isomer	4800	ppt
8012	HCH	HCH, Delta isomer	3700	ppt
8014	DDT	p,p-DDE	280	ppt
8015	DDT	p,p-DDE	<MDL	ppt
8015	PCB	PCB 114	<MDL	ppt
8015	PCB	PCB 153/168	<MDL	ppt
8019	DDT	p,p-DDD	130	ppt
8019	DDT	p,p-DDE	930	ppt
8019	DDT	p,p-DDT	330	ppt
8019	PAH	Benzo[A]pyrene	24.4	ppb
8019	PCB	PCB 138	36	ppt
8019	PCB	PCB 149	160	ppt
8019	PCB	PCB 153/168	120	ppt
8020	DDT	p,p-DDE	180	ppt
8022	DDT	p,p-DDE	560	ppt
8022	PCB	PCB 153/168	100	ppt
8024	DDT	p,p-DDE	250	ppt
8024	PAH	3,4-benzo(B)fluoranthene	26.6	ppb
8024	PAH	Benzo[A]pyrene	24.5	ppb
8024	PAH	Benzo[G,H,I]perylene	20.3	ppb
8024	PCB	PCB 70	250	ppt
8024	PCB	PCB 105	45	ppt
8024	PCB	PCB 110	130	ppt
8024	PCB	PCB 118	130	ppt
8024	PCB	PCB 138	110	ppt

<MDL=Average of lab duplicates below MDL (see City of San Diego 2011)

Appendix G.1 *continued*

Station	Class	Constituent	Value	Units
8024	PCB	PCB 149	200	ppt
8024	PCB	PCB 151	39	ppt
8024	PCB	PCB 153/168	140	ppt
8024	PCB	PCB 177	200	ppt
8028	DDT	o,p-DDD	270	ppt
8028	DDT	o,p-DDT	350	ppt
8028	DDT	p,p-DDD	2000	ppt
8028	DDT	p,p-DDE	2300	ppt
8028	DDT	p,p-DDT	71,000	ppt
8028	PAH	3,4-benzo(B)fluoranthene	25.3	ppb
8028	PAH	Benzo[A]anthracene	29.1	ppb
8028	PAH	Fluoranthene	21.6	ppb
8028	PAH	Pyrene	25	ppb
8028	PCB	PCB 52	590	ppt
8028	PCB	PCB 66	81	ppt
8028	PCB	PCB 70	160	ppt
8028	PCB	PCB 99	310	ppt
8028	PCB	PCB 101	990	ppt
8028	PCB	PCB 105	270	ppt
8028	PCB	PCB 110	530	ppt
8028	PCB	PCB 118	370	ppt
8028	PCB	PCB 128	140	ppt
8028	PCB	PCB 138	400	ppt
8028	PCB	PCB 149	490	ppt
8028	PCB	PCB 153/168	310	ppt
8028	PCB	PCB 156	81	ppt
8028	PCB	PCB 170	160	ppt
8028	PCB	PCB 177	170	ppt
8028	PCB	PCB 180	220	ppt
8028	PCB	PCB 187	110	ppt
8028	PCB	PCB 206	190	ppt
8030	DDT	p,p-DDE	270	ppt
8038	DDT	p,p-DDE	230	ppt
8039	DDT	p,p-DDE	220	ppt
8040	DDT	p,p-DDE	100	ppt
8043	DDT	p,p-DDE	200	ppt
8043	PCB	PCB 206	290	ppt
8045	DDT	p,p-DDE	290	ppt
8045	PCB	PCB 52	290	ppt
8045	PCB	PCB 66	200	ppt
8045	PCB	PCB 70	670	ppt

Appendix G.1 *continued*

Station	Class	Constituent	Value	Units
8045	PCB	PCB 74	200	ppt
8045	PCB	PCB 87	540	ppt
8045	PCB	PCB 99	330	ppt
8045	PCB	PCB 101	1400	ppt
8045	PCB	PCB 105	230	ppt
8045	PCB	PCB 110	930	ppt
8045	PCB	PCB 118	610	ppt
8045	PCB	PCB 128	140	ppt
8045	PCB	PCB 138	620	ppt
8045	PCB	PCB 149	590	ppt
8045	PCB	PCB 153/168	230	ppt
8045	PCB	PCB 156	55	ppt
8045	PCB	PCB 158	80	ppt
8045	PCB	PCB 180	220	ppt

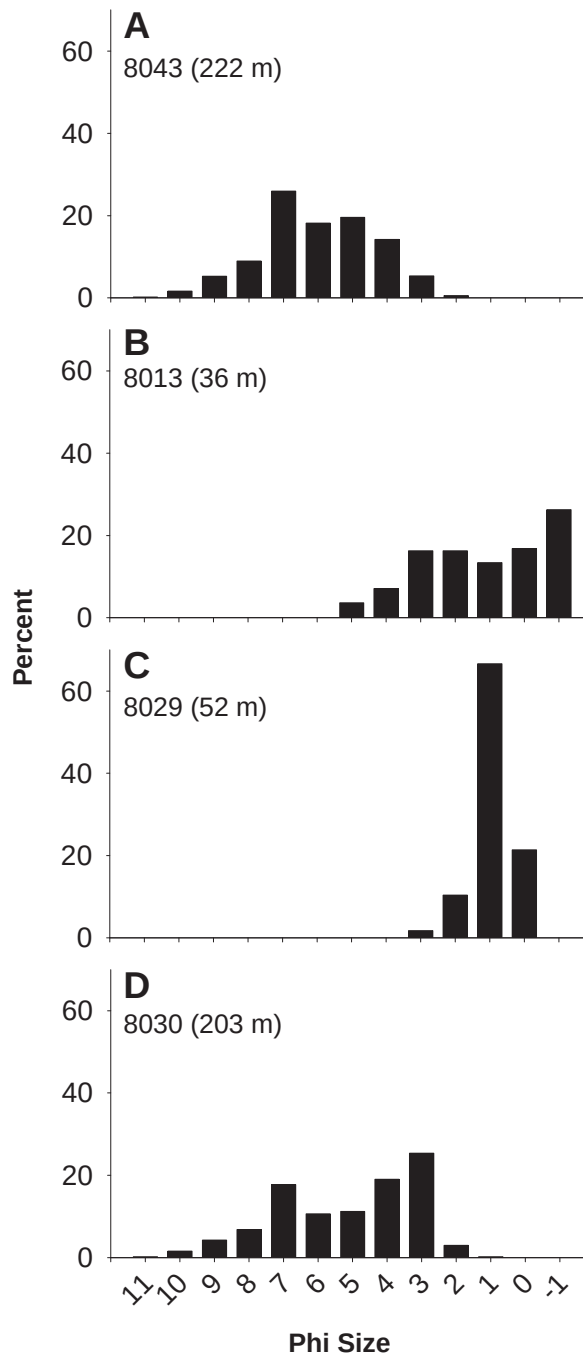
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Appendix G.2

Summary of particle size parameters for the 2010 regional survey stations. Silt and clay fractions are indiscernable for samples analyzed by sieve. Visual observations of sediments were made in the field at the time of collection as well as on the sieved "grunge" (i.e., particles retained on 1-mm mesh screen and preserved with infauna for benthic community analysis). SD=standard deviation; abbreviated visual observations are: Sh=shell hash; G=gravel; R=rock; Od=organic debris; Rrs=red relict sand; Wt=worm tubes; Cs=coarse sand; Cbs=coarse black sand; Ct=chaetopterid tubes.

	Station	Depth (m)	Mean (mm)	Mean (phi)	SD (phi)	Median (phi)	Coarse (%)	Sand (%)	Silt (%)	Clay (%)	Fines (%)	Visual Observations
Inner Shelf	8016	9	0.210	2.25	0.59	2.37	0.0	99.5	0.5	0.0	0.5	Sh
	8047	9	0.315	1.67	1.05	1.84	7.7	92.3	0.0	0.0	0.0	Sh
	8010	10	0.186	2.42	0.49	2.45	0.0	98.7	1.3	0.0	1.3	Wt, Sh
	8017	12	0.177	2.50	0.57	2.63	0.0	97.8	2.2	0.0	2.2	G, Od, Wt, Sh
	8025	17	0.113	3.15	0.79	3.02	0.0	87.4	12.1	0.5	12.6	Od, Wt, Sh
	8027	21	0.115	3.13	0.58	3.05	0.0	90.7	9.1	0.2	9.3	Od, Wt
	8033	22	0.103	3.28	1.20	3.67	11.6	81.9	—	—	6.6	Sh
	8021	24	0.124	3.01	0.73	2.94	0.0	92.6	7.0	0.3	7.4	Od, Wt
Mid-shelf	8023	31	0.591	0.76	1.40	1.03	21.8	72.0	—	—	6.1	Cs, G, R, Sh
	8032	33	0.107	3.23	1.08	3.15	0.0	82.1	17.1	0.7	17.9	Od, Wt
	8013	36	0.623	0.68	1.68	0.52	43.1	53.1	—	—	3.7	Sh, G
	8034	38	0.591	0.76	0.68	0.68	11.4	88.6	0.0	0.0	0.0	Rrs, Sh
	8003	40	0.109	3.20	1.11	2.97	0.0	82.7	16.2	1.1	17.3	Od, Wt
	8001	50	0.073	3.78	1.33	3.50	0.0	70.1	27.7	2.2	29.9	Od, Sh
	8009	52	0.055	4.18	1.48	3.73	0.0	58.9	38.7	2.5	41.1	Od, Wt, Sh
	8029	52	0.786	0.35	0.49	0.26	21.4	78.6	0.0	0.0	0.0	Cbs
	8007	58	0.048	4.38	1.57	3.93	0.0	52.2	45.0	2.8	47.8	Od, Wt, Sh
	8005	62	0.057	4.14	1.50	3.67	0.0	63.6	34.2	2.2	36.4	Od, Wt, Sh
	8011	78	0.040	4.63	1.50	4.27	0.0	40.2	56.3	3.5	59.8	Wt, Od
	8028	80	0.053	4.23	1.63	3.74	0.0	56.3	40.7	3.0	43.7	G, Cs, Od, Wt, Sh
	8019	81	0.044	4.51	1.54	4.14	0.0	45.2	51.7	3.1	54.8	Od, Wt, Sh
	8006	84	0.040	4.63	1.59	4.29	0.0	41.7	54.8	3.6	58.3	Od, Wt, Sh
	8022	85	0.051	4.30	1.58	3.90	0.0	53.1	43.7	3.2	46.9	G, Sh
	8002	94	0.057	4.15	1.49	3.62	0.0	62.6	34.6	2.8	37.4	G, Sh
	8020	96	0.067	3.91	1.39	3.47	0.0	66.5	31.4	2.1	33.5	Od, Wt, Sh
	8024	101	0.701	0.51	1.00	0.52	27.2	69.1	—	—	3.7	Sh, G, Cs, R
	8014	112	0.056	4.16	1.58	3.62	0.0	60.5	36.7	2.8	39.5	Od, Wt, Sh
Outer Shelf	8012	123	0.060	4.06	1.49	3.51	0.0	64.3	33.2	2.6	35.7	Sh, Cbs
	8008	125	0.089	3.49	1.65	2.81	0.0	76.0	21.5	2.5	24.0	Sh, G, R
	8026	155	0.091	3.47	1.70	2.62	0.0	76.4	21.7	1.9	23.6	Cs, Sh
	8018	161	0.193	2.37	1.95	2.12	4.1	78.9	15.3	1.7	17.0	G, Sh
	8015	167	0.040	4.66	1.64	4.22	0.0	43.5	52.2	4.3	56.5	Od, Ct
	8004	196	0.040	4.63	1.65	4.13	0.0	46.1	49.4	4.5	53.9	Od, Ct
Upper Slope	8030	203	0.044	4.52	1.97	4.19	0.0	47.6	46.4	6.0	52.4	Od, Ct, Sh
	8045	212	0.033	4.93	1.66	4.66	0.0	34.0	60.6	5.4	66.0	Od, Ct, Sh
	8043	222	0.023	5.46	1.63	5.59	0.0	20.1	72.7	7.2	79.9	Od, Ct, Sh
	8038	263	0.034	4.87	1.73	4.65	0.0	38.3	56.5	5.2	61.7	Od, Wt, Sh
	8037	317	0.025	5.35	1.55	5.45	0.0	21.2	73.4	5.3	78.8	Od, Wt
	8040	421	0.024	5.38	1.60	5.59	0.0	22.0	72.5	5.6	78.0	Wt
	8039	433	0.034	4.89	1.67	4.76	0.0	35.8	59.9	4.3	64.2	G, Od, Wt

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Appendix G.3

Select histograms illustrating particle size distributions of regional sediments in 2010. (A) highest percent fines (79.9%); (B) highest percent coarse (43.1%; this sample was sieved, so the bar at phi 1 represents all material finer than phi 4, see text); (C) most well sorted ($SD=0.5$); (D) most poorly sorted ($SD=2.0$).

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Appendix G.4

Concentrations of chemical analytes in sediments from the 2010 regional stations. ERL=Effects Range Low threshold value; ERM= Effects Range Median threshold value; see Appendix C.2 for MDLs, parameter abbreviations, and periodic table symbols. Values that exceed ERL or ERM values are in bold.

	Station	Depth (m)	Sulfides (ppm)	TN (% weight)	TOC (% weight)	tHCH (ppt)	tDDT (ppt)	HCb (ppt)	tPCB (ppt)	tPAH (ppb)
Inner Shelf	8016	9	nd	0.014	0.070	nd	nd	nd	nd	nd
	8047	9	0.96	0.013	0.081	nd	nd	nd	nd	nd
	8010	10	3.69	0.017	0.086	nd	nd	nd	nd	nd
	8017	12	2.52	0.023	0.042	nd	nd	nd	nd	nd
	8025	17	0.20	0.020	0.130	nd	nd	nd	nd	nd
	8027	21	nd	0.019	0.125	nd	nd	nd	nd	nd
	8033	22	9.07	0.020	0.157	nd	nd	nd	nd	nd
	8021	24	2.90	0.021	0.139	nd	nd	50	nd	nd
Mid-shelf	8023	31	0.69	0.043	2.310	nd	nd	nd	nd	nd
	8032	33	nd	0.024	0.185	nd	nd	62	nd	nd
	8013	36	10.40	0.045	4.320	nd	nd	nd	nd	nd
	8034	38	0.31	0.010	0.027	nd	nd	nd	nd	nd
	8003	40	14.60	0.041	0.307	nd	nd	nd	nd	nd
	8001	50	4.08	0.049	0.463	nd	nd	27	nd	nd
	8009	52	6.31	0.061	0.552	nd	385	nd	nd	nd
	8029	52	0.56	0.010	0.022	nd	nd	nd	nd	nd
	8007	58	2.60	0.081	0.729	nd	<MDL	nd	nd	nd
	8005	62	2.59	0.061	0.546	nd	200	nd	42	nd
	8011	78	6.88	0.091	0.842	nd	440	nd	38	nd
	8028	80	3.91	0.077	0.738	nd	75,920	nd	5572	101.0
	8019	81	3.46	0.104	0.902	nd	1390	nd	316	24.4
	8006	84	2.23	0.097	0.876	nd	390	nd	nd	nd
	8022	85	7.00	0.071	0.563	nd	560	81	100	nd
	8002	94	1.40	0.058	0.516	nd	nd	nd	nd	nd
	8020	96	4.15	0.047	0.395	nd	180	nd	nd	nd
	8024	101	5.36	0.053	0.515	nd	250	nd	1244	71.4
	8014	112	3.60	0.053	0.540	nd	280	nd	nd	nd
Outer Shelf	8012	123	3.33	0.063	0.646	8500	3390	nd	nd	nd
	8008	125	2.97	0.069	4.470	nd	170	nd	nd	nd
	8026	155	2.21	0.041	1.530	nd	nd	nd	nd	nd
	8018	161	1.60	0.050	1.480	nd	nd	nd	nd	nd
	8015	167	24.10	0.115	1.150	nd	<MDL	nd	<MDL	nd
	8004	196	3.16	0.093	0.877	nd	360	nd	nd	nd
Upper Slope	8030	203	4.00	0.105	1.590	nd	270	nd	nd	nd
	8045	212	17.50	0.131	1.510	nd	290	nd	7335	nd
	8043	222	10.70	0.212	2.650	nd	200	nd	290	nd
	8038	263	12.90	0.145	1.730	nd	230	nd	nd	nd
	8037	317	11.60	0.222	2.740	nd	nd	nd	nd	nd
	8040	421	12.90	0.198	2.080	nd	100	nd	nd	nd
	8039	433	2.30	0.149	1.800	nd	220	nd	nd	nd
ERL:			na	na	na	na	1580	na	na	4022
ERM:			na	na	na	na	46,100	na	na	44,792

nd = not detected; na = not available; < MDL = average of lab duplicates below MDL (see City of San Diego 2011)

Appendix G.4 *continued*

			Metals (ppm)								
	Station	Depth (m)	Al	Sb	As	Ba	Be	Cd	Cr	Cu	Fe
Inner Shelf	8016	9	2370	0.42	1.16	10.90	nd	nd	5.9	0.29	3670
	8047	9	2020	nd	1.20	8.49	nd	nd	5.1	4.32	4340
	8010	10	3410	nd	1.11	21.60	0.04	nd	5.4	1.12	4520
	8017	12	2090	nd	1.24	14.10	nd	nd	4.5	4.54	3400
	8025	17	3780	0.40	1.58	15.00	0.02	0.06	9.8	1.53	4130
	8027	21	3680	0.43	1.51	15.30	0.06	nd	9.0	1.19	3830
	8033	22	4410	0.46	1.94	32.90	0.04	nd	10.6	2.35	5340
	8021	24	3490	nd	1.72	19.90	nd	nd	6.9	5.70	5060
Mid-shelf	8023	31	4750	0.52	6.41	22.50	0.12	0.17	13.3	10.40	17,700
	8032	33	4690	0.45	1.62	27.00	0.04	nd	11.8	2.49	5760
	8013	36	2150	nd	2.39	14.10	0.05	0.17	6.9	2.84	4350
	8034	38	1180	nd	5.10	2.79	nd	nd	10.1	3.94	6540
	8003	40	8970	0.55	2.78	57.50	0.14	0.16	14.6	7.09	10,800
	8001	50	7600	0.51	3.60	52.70	0.13	nd	18.8	6.26	11,900
	8009	52	7710	nd	3.72	52.60	0.17	0.22	17.4	8.67	12,800
	8029	52	1020	nd	2.48	1.93	0.04	nd	3.5	0.55	3170
	8007	58	9370	0.41	3.89	57.30	0.20	0.24	19.6	10.50	14,300
	8005	62	9530	0.54	3.33	46.30	0.16	0.16	15.8	6.98	11,200
	8011	78	10,200	0.51	4.25	57.20	0.22	0.12	21.1	11.90	15,700
	8028	80	12,000	0.65	3.95	44.90	0.19	0.12	18.0	15.70	12,100
	8019	81	7190	0.39	3.82	47.00	0.21	0.16	19.2	12.70	12,400
	8006	84	7450	0.37	4.15	49.40	0.20	0.11	18.2	10.20	13,300
	8022	85	14,400	0.69	3.86	59.40	0.22	0.13	19.9	13.40	14,600
	8002	94	9030	0.51	3.20	50.20	0.21	0.20	17.6	7.71	13,300
	8020	96	4750	nd	2.06	26.50	0.12	0.08	11.7	6.02	8420
	8024	101	10,300	0.32	3.38	54.50	nd	0.13	15.4	13.60	15,900
	8014	112	4510	nd	2.87	28.50	0.14	0.10	13.2	7.09	9060
Outer Shelf	8012	123	4560	<MDL	2.24	27.20	0.13	0.13	12.2	6.26	8310
	8008	125	4760	nd	5.41	16.70	0.29	0.15	25.8	5.30	21,100
	8026	155	4540	0.38	3.17	16.20	0.18	0.18	19.6	4.21	9460
	8018	161	5790	0.62	5.46	86.60	0.32	0.16	30.2	3.96	13,700
	8015	167	7880	0.44	2.73	61.30	0.20	0.12	18.5	12.50	13,800
	8004	196	12,900	0.66	2.56	52.50	0.23	0.48	22.3	12.00	14,700
Upper Slope	8030	203	11,100	0.58	3.54	50.40	0.25	0.22	22.8	12.50	14,600
	8045	212	9170	0.42	2.96	57.00	0.24	0.31	23.2	14.80	14,600
	8043	222	18,000	2.17	3.77	80.10	0.33	0.32	32.4	31.20	19,900
	8038	263	8880	0.44	2.82	55.10	0.25	0.39	23.4	14.70	14,700
	8037	317	18,100	0.89	2.97	87.60	0.33	0.36	32.1	24.40	18,600
	8040	421	19,400	0.88	4.66	100.00	0.37	0.62	33.4	22.80	21,400
	8039	433	14,100	0.83	2.22	81.40	0.29	0.49	30.5	16.90	17,100
	ERL:			na	na	8.2	na	na	1.2	81	34
ERM:			na	na	70	na	na	9.6	370	270	na

nd = not detected; na = not available; < MDL = average of lab duplicates below MDL (see City of San Diego 2011)

Appendix G.4 *continued*

	Station	Depth (m)	Metals (ppm)								
			Pb	Mn	Hg	Ni	Se	Ag	Tl	Sn	Zn
Inner Shelf	8016	9	2.20	38.1	nd	1.13	nd	0.30	nd	nd	7.5
	8047	9	1.14	42.1	nd	0.91	nd	nd	nd	nd	6.4
	8010	10	0.89	67.7	0.055	1.45	nd	nd	nd	0.4	13.2
	8017	12	0.99	35.6	nd	1.17	nd	nd	nd	<MDL	7.8
	8025	17	3.35	38.8	0.003	2.24	nd	nd	2.0	nd	10.3
	8027	21	2.99	36.4	nd	1.94	nd	nd	nd	nd	8.9
	8033	22	4.16	50.0	0.003	2.77	nd	nd	nd	nd	12.7
	8021	24	2.60	53.8	0.013	1.93	nd	nd	nd	0.4	13.9
Mid-shelf	8023	31	91.60	235.0	nd	4.22	nd	nd	nd	1.7	39.0
	8032	33	4.50	47.7	0.005	3.41	0.243	nd	nd	nd	13.1
	8013	36	1.93	36.6	0.016	2.29	nd	nd	nd	0.3	11.1
	8034	38	2.37	14.6	nd	0.77	nd	nd	nd	0.3	6.4
	8003	40	2.87	119.0	0.006	5.51	0.530	nd	nd	0.6	31.9
	8001	50	8.25	93.7	0.007	5.49	nd	0.33	nd	0.5	29.0
	8009	52	5.18	111.0	0.043	6.59	0.250	nd	nd	0.9	35.1
	8029	52	1.29	8.2	nd	0.88	nd	nd	nd	nd	3.9
	8007	58	5.74	119.0	0.037	7.79	0.250	nd	nd	1.0	41.3
	8005	62	4.31	106.0	0.021	6.39	nd	nd	nd	0.9	29.4
	8011	78	6.62	117.0	0.041	9.54	0.750	nd	nd	1.3	38.9
	8028	80	9.36	102.0	0.062	8.48	0.276	nd	nd	1.5	40.9
	8019	81	5.67	92.6	0.053	10.40	0.310	nd	nd	0.9	34.9
	8006	84	6.24	103.0	0.074	8.59	0.470	nd	nd	0.9	34.7
	8022	85	6.43	123.0	0.043	9.49	0.270	nd	nd	1.3	37.8
	8002	94	4.97	94.8	0.017	6.97	0.320	nd	nd	0.9	30.8
	8020	96	3.65	55.8	0.023	5.26	0.400	nd	nd	0.7	20.4
	8024	101	5.39	112.0	0.043	6.53	0.266	nd	nd	1.0	35.1
	8014	112	4.23	61.0	0.025	6.08	nd	nd	nd	0.6	24.7
Outer Shelf	8012	123	4.01	61.3	0.025	6.05	0.440	nd	nd	0.6	22.6
	8008	125	4.27	43.7	0.016	5.29	0.350	nd	nd	0.5	34.2
	8026	155	2.20	27.2	0.010	4.82	0.300	nd	nd	0.5	17.4
	8018	161	2.44	24.9	0.005	4.73	nd	nd	nd	0.4	21.6
	8015	167	7.27	111.0	0.051	9.46	0.370	nd	nd	1.0	37.6
	8004	196	5.26	121.0	0.029	10.90	0.360	nd	nd	1.1	38.7
Upper Slope	8030	203	4.81	83.2	0.030	11.20	0.551	nd	nd	1.3	34.7
	8045	212	5.69	113.0	0.029	13.60	0.410	nd	nd	0.9	42.4
	8043	222	9.39	143.0	0.089	20.60	1.010	nd	nd	2.6	57.7
	8038	263	5.79	104.0	0.042	13.10	0.650	nd	nd	0.9	41.5
	8037	317	6.49	139.0	0.058	21.20	1.160	nd	nd	1.5	54.1
	8040	421	7.28	160.0	0.045	18.10	1.130	nd	nd	1.5	58.8
	8039	433	4.87	115.0	0.071	15.00	0.880	nd	nd	1.0	45.6
ERL:			46.7	na	0.15	20.9	na	1	na	na	150
ERM:			218	na	0.71	51.6	na	3.7	na	na	410

nd = not detected; na = not available; <MDL = average of lab duplicates below MDL (see City of San Diego 2011)

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Appendix G.5

Summary of the parameters that distinguish between each cluster group according to SIMPER analysis. Shown are the five parameters with the greatest percent contribution to overall average squared Euclidean distance between each group. See Table 8.3 for units of each parameter.

Parameter	Average Squared Distance/ Standard Deviation	Percent Contribution	Cumulative Percent Contribution
Groups A & B			
Lead	22.6	26.0	26.0
Median Phi	6.0	7.4	33.5
Selenium	4.2	7.2	40.7
Total Nitrogen	2.6	5.6	46.3
Mercury	1.8	5.6	51.8
Groups A & C			
Total DDT	373.9	45.5	45.5
Selenium	3.2	6.2	51.7
Cadmium	1.3	6.0	57.8
Total Nitrogen	2.1	5.6	63.3
Antimony	0.6	5.0	68.3
Groups A & D			
Nickel	3.5	6.7	6.7
Total Nitrogen	3.2	6.7	13.3
Copper	2.1	6.5	19.8
Selenium	4.2	6.2	26.1
Aluminum	3.3	6.1	32.2
Groups A & E			
Antimony	0.8	10.3	10.3
Total Nitrogen	1.8	8.0	18.3
Copper	1.3	8.0	26.3
Selenium	1.7	7.9	34.2
Nickel	1.8	7.1	41.3
Groups B & C			
Total DDT	*	36.5	36.5
Lead	*	31.7	68.2
Manganese	*	7.4	75.6
Mercury	*	6.0	81.6
Median Phi	*	3.6	85.2
Groups B & D			
Lead	36.9	39.3	39.3
Manganese	6.1	17.1	56.4
Arsenic	2.9	12.5	68.9
Tin	4.8	7.3	76.2
Iron	6.8	5.8	82.0

* Statistic is undefined because standard deviation=0

Appendix G.5 *continued*

Parameter	Average Squared Distance/ Standard Deviation	Percent Contribution	Cumulative Percent Contribution
Groups B & E			
Lead	28.7	48.8	48.8
Manganese	2.2	12.7	61.5
Arsenic	2.0	7.4	68.9
Median Phi	2.1	5.1	74.0
Tin	1.7	3.0	77.0
Groups C & D			
Total DDT	*	43.9	43.9
Tin	4.2	6.4	50.2
Mercury	2.8	5.9	56.1
Zinc	4.8	4.8	60.9
Sorting (SD)	1.6	4.3	65.2
Groups C & E			
Total DDT	52.3	73.7	73.7
Mercury	1.2	4.1	77.7
Tin	1.4	2.7	80.5
Sulfides	0.4	2.4	82.9
Copper	1.1	2.0	84.9
Groups D & E			
Sorting (SD)	1.3	8.9	8.9
Iron	1.5	6.7	15.6
Beryllium	1.5	6.4	22.0
Zinc	1.8	6.0	27.9
Arsenic	1.0	5.9	33.8

* Statistic is undefined because standard deviation=0