

ATTACHMENT 1

Analytical Results

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS501-010	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS504-010	LDW-SS505-010	LDW-SS506-010
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.398 J	0.122 U	0.279 U	0.150 U	0.535 J	0.608 J
1,2,3,7,8-PeCDD	ng/kg dw	1.55 J	0.491 U	0.518 J	0.277 U	2.16 J	2.14 J
1,2,3,4,7,8-HxCDD	ng/kg dw	2.68 J	0.704 J	0.630 J	0.479 J	3.89 J	4.17 J
1,2,3,6,7,8-HxCDD	ng/kg dw	10.1	2.14	2.31	2.27 J	15.1	14.8
1,2,3,7,8,9-HxCDD	ng/kg dw	7.63	1.80	1.82	1.57 J	11.1	10.8
1,2,3,4,6,7,8-HpCDD	ng/kg dw	248	42.5	42.0	50.9	392	358
OCDD	ng/kg dw	2,360	393	410	497	3,840	3,440
2,3,7,8-TCDF	ng/kg dw	1.27	0.900 U	1.11	0.437 J	2.28	2.06
1,2,3,7,8-PeCDF	ng/kg dw	0.717 J	0.383 J	0.447 J	0.205 J	1.17 J	1.16 J
2,3,4,7,8-PeCDF	ng/kg dw	1.59 J	0.667 J	0.977	0.467 J	2.59 J	2.62 J
1,2,3,4,7,8-HxCDF	ng/kg dw	5.02 J	1.34	2.47	2.43 J	8.71	10.4
1,2,3,6,7,8-HxCDF	ng/kg dw	1.73 J	0.736 J	1.08	0.561 J	2.89 J	3.06 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.167 J	0.0660 U	1.01 U	0.0670 U	0.230 J	0.200 J
2,3,4,6,7,8-HxCDF	ng/kg dw	1.43 J	0.690 J	0.964 J	0.378 J	2.34 J	2.43 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	40.5	19.4	15.2	14.0	73.6	78.2
1,2,3,4,7,8,9-HpCDF	ng/kg dw	2.79 J	0.752 J	1.06	1.33 J	5.29	5.98
OCDF	ng/kg dw	165	40.9	53.2	63.6	323	320
Total TCDD	ng/kg dw	6.25	4.40	7.17	1.68	8.43	7.58
Total PeCDD	ng/kg dw	12.4	5.38	7.90	2.23	15.2	14.8
Total HxCDD	ng/kg dw	99.4	21.4	20.2	18.9	141	125
Total HpCDD	ng/kg dw	738	110	85.6	136	1,110	945
Total TCDF	ng/kg dw	22.3	10.2	21.6	5.63	33.7	38.4
Total PeCDF	ng/kg dw	26.7	10.8	26.5	7.09	44.7	47.6
Total HxCDF	ng/kg dw	62.6	20.1	29.9	22.3	111	117
Total HpCDF	ng/kg dw	145	48.1	49.5	56.4	279	282
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	9.12 J	2.06 J	2.77 J	2.01 J	14.1 J	13.9 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	34.3	7.9	4.1	1	1.0	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	% dw	1.9	5.1	3.5	2.0	1.2	0.3
Fractional % phi 0-1 (500-1000 microns)	% dw	3.4	18.3	18.1	10.9	2.2	0.6
Fractional % phi 1-2 (250-500 microns)	% dw	12.0	39.7	41.2	27.3	6.7	2.0
Fractional % phi 2-3 (125-250 microns)	% dw	6.4	19.3	16.4	16.1	11.9	10.9
Fractional % phi 3-4 (62.5-125 microns)	% dw	3.0	3.6	4.5	3.6	9.6	13.9

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

	Unit	LDW-SS501-010	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS504-010	LDW-SS505-010	LDW-SS506-010
na - data not available							
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	3.8	1.3	2.5	4.3	9.6	10.2
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	6.3	0.7	2.6	6.3	11.3	11.4
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	7.4	0.5	1.9	7.4	12.8	13.3
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	3.6	0.7	1.4	6.5	10.6	11.4
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	7.8	0.9	1.2	4.2	7.0	7.9
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	4.1	0.8	0.9	3.8	6.1	6.7
Fractional % phi 10+ (<0.98 micron)	% dw	5.9	1.1	1.7	6.4	10.0	11.4
Total gravel	% dw	34.3	7.9	4.1	1	1.0	0.1 U
Total sand	% dw	26.7	86.0	83.7	59.8	31.6	27.7
Total silt	% dw	21.1	3.2	8.4	24.5	44.3	46.3
Total clay	% dw	17.8	2.8	3.8	14.3	23.1	26.0
Total fines (percent silt+clay)	% dw	38.9	6.0	12.2	38.9	67.4	72.3
Conventionals							
Total organic carbon (TOC)	% dw	2.17	2.00	1.29	1.38	1.80	2.12
Total solids	% ww	51.10	73.10 J	76.20 J	68.30	55.30	56.40

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS507-010	LDW-SS602-010 ^a	LDW-SS508-010	LDW-SS509-010	LDW-SS510-010	LDW-SS511-010
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.453 J	na	0.0580 U	5.59	0.324 J	0.386 J
1,2,3,7,8-PeCDD	ng/kg dw	1.44 J	na	4.92 U	15.3	1.04 J	1.09 J
1,2,3,4,7,8-HxCDD	ng/kg dw	2.51 J	na	0.0610 U	13.7	1.61 J	1.92 J
1,2,3,6,7,8-HxCDD	ng/kg dw	10.9	na	0.0810 J	47.7	5.92	7.40
1,2,3,7,8,9-HxCDD	ng/kg dw	7.39	na	0.198 J	41.8	4.64 J	5.81
1,2,3,4,6,7,8-HpCDD	ng/kg dw	315	na	1.48 J	600	141	192
OCDD	ng/kg dw	4,080	na	11.3	5,090	1,380	1,960
2,3,7,8-TCDF	ng/kg dw	1.55	na	1.01 U	55.4	0.801 J	1.00 J
1,2,3,7,8-PeCDF	ng/kg dw	0.944 J	na	4.36 U	28.8	0.472 J	0.550 J
2,3,4,7,8-PeCDF	ng/kg dw	1.96 J	na	4.45 U	54.8	0.994 J	1.30 J
1,2,3,4,7,8-HxCDF	ng/kg dw	8.00	na	4.74 U	39.4	3.56 J	4.79 J
1,2,3,6,7,8-HxCDF	ng/kg dw	2.20 J	na	4.50 U	30.2	1.17 J	1.48 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.197 J	na	4.97 U	2.35 J	0.106 J	0.108 U
2,3,4,6,7,8-HxCDF	ng/kg dw	1.63 J	na	5.02 U	32.9	0.901 J	1.24 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	58.4	na	0.203 J	219	29.6	35.9
1,2,3,4,7,8,9-HpCDF	ng/kg dw	4.56 J	na	4.74 U	11.5	2.27 J	2.63 J
OCDF	ng/kg dw	285	na	0.673 J	385	149	168
Total TCDD	ng/kg dw	5.93	na	0.207	205	4.03	4.90
Total PeCDD	ng/kg dw	11.2	na	0.0990	232	7.47	7.80
Total HxCDD	ng/kg dw	104	na	1.44	511	56.8	73.1
Total HpCDD	ng/kg dw	1,080	na	3.59	1,910	410	594
Total TCDF	ng/kg dw	23.9	na	0.296	1,090	13.7	18.4
Total PeCDF	ng/kg dw	32.5	na	0.0700	716	17.7	21.6
Total HxCDF	ng/kg dw	95.6	na	0.217	566	46.0	59.7
Total HpCDF	ng/kg dw	242	na	0.527	594	122	133
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	11.0 J	na	4.31 J	74.5 J	5.73 J	7.20 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	0.4	0.1	1.1	7.3	0.1	0.1
Fractional % phi -1-0 (1000-2000 microns)	% dw	0.6	2.5	7.2	3.6	0.7	0.1
Fractional % phi 0-1 (500-1000 microns)	% dw	1.1	2.2	2.1	8.5	1.1	0.2
Fractional % phi 1-2 (250-500 microns)	% dw	1.5	2.8	2.0	19.3	1.7	0.3
Fractional % phi 2-3 (125-250 microns)	% dw	3.2	3.8	2.1	12.4	2.4	0.3
Fractional % phi 3-4 (62.5-125 microns)	% dw	6.1	6.4	1.3	10.6	8.0	0.9

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS507-010	LDW-SS602-010 ^a	LDW-SS508-010	LDW-SS509-010	LDW-SS510-010	LDW-SS511-010
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	10.5	7.3	3.5	8.6	14.0	6.4
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	12.8	13.4	16.6	6.9	13.7	16.9
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	16.3	16.3	21.6	5.5	15.9	19.9
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	14.8	14.5	13.9	5.6	14.6	17.4
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	10.4	10	9.7	3.7	9.0	12.7
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	8.4	7.8	8.8	3.0	7.3	8.9
Fractional % phi 10+ (<0.98 micron)	% dw	13.8	12.6	10.3	5.0	11.5	16.2
Total gravel	% dw	0.4	0.1	1.1	7.3	0.1	0.1
Total sand	% dw	12.5	17.7	14.7	54.4	13.9	1.7
Total silt	% dw	54.4	51.5	55.6	26.6	58.2	60.6
Total clay	% dw	32.6	31	28.8	11.7	27.8	37.7
Total fines (percent silt+clay)	% dw	87.0	82	84.4	38.3	86.0	98.3
Conventionals							
Total organic carbon (TOC)	% dw	1.79	1.97	6.30	7.08	1.99	2.53
Total solids	% ww	47.20	47.00	41.73	40.30	48.60	43.70

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS512-010	LDW-SS513-010	LDW-SS514-010	LDW-SS515-010	LDW-SS516-010	LDW-SS517-010
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.217 U	0.588 U	0.381 J	0.696 J	0.395 J	0.488 J
1,2,3,7,8-PeCDD	ng/kg dw	0.743 J	2.11 J	1.43 J	2.27 J	1.09 J	1.53 J
1,2,3,4,7,8-HxCDD	ng/kg dw	1.25 J	4.61 J	2.41 J	3.70 J	1.87 J	2.63 J
1,2,3,6,7,8-HxCDD	ng/kg dw	5.20 J	22.5	12.9	13.0	8.76	11.4
1,2,3,7,8,9-HxCDD	ng/kg dw	4.12 J	13.7 J	7.65	10.0	5.43	7.85
1,2,3,4,6,7,8-HpCDD	ng/kg dw	145	690	333	289	223	304
OCDD	ng/kg dw	1,590	6,650	3,450	2,800	2,380	2,970
2,3,7,8-TCDF	ng/kg dw	0.692 J	2.48	1.62	1.72	1.13	1.57
1,2,3,7,8-PeCDF	ng/kg dw	0.424 J	1.80 U	1.14 J	1.06 J	1.00 J	0.754 J
2,3,4,7,8-PeCDF	ng/kg dw	0.970 J	3.56 J	3.48 J	2.22 J	3.29 J	2.02 J
1,2,3,4,7,8-HxCDF	ng/kg dw	4.46 J	19.6	24.2	7.53	16.5	7.62
1,2,3,6,7,8-HxCDF	ng/kg dw	1.19 J	7.00 J	4.58	2.69 J	3.06 J	2.09 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.0960 J	0.500 U	0.335 J	0.200 J	0.231 J	0.158 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.782 J	3.24 J	2.53 J	2.19 J	1.68 J	1.55 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	30.8	150	93.2	56.2	56.9	62.9
1,2,3,4,7,8,9-HpCDF	ng/kg dw	2.43 J	12.8 J	10.7	4.20 J	4.82	4.96
OCDF	ng/kg dw	136	760	312	242	272	346
Total TCDD	ng/kg dw	2.77	7.48	6.75	8.08	4.61	5.67
Total PeCDD	ng/kg dw	5.91	13.0 J	11.3	15.8	8.31	13.0
Total HxCDD	ng/kg dw	53.0	204	111	107	69.7	108
Total HpCDD	ng/kg dw	469	2,030	973	814	562	865
Total TCDF	ng/kg dw	12.6	42.1	26.9	32.4	22.0	27.4
Total PeCDF	ng/kg dw	16.1	62.9	46.6	46.0	41.3	30.3
Total HxCDF	ng/kg dw	45.7	214	164	95.7	117	90.7
Total HpCDF	ng/kg dw	119	662	360	205	239	267
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	5.23 J	21.6 J	14.0 J	12.2 J	10.0 J	10.9 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	3.8	1.1	0.2	23.6	1.8	9.0
Fractional % phi -1-0 (1000-2000 microns)	% dw	2.6	1.0	1.1	2.7	2.9	6.3
Fractional % phi 0-1 (500-1000 microns)	% dw	12.9	2.2	5.9	2.5	6.5	4.9
Fractional % phi 1-2 (250-500 microns)	% dw	27.6	3.8	10.7	7.1	7.2	3.9
Fractional % phi 2-3 (125-250 microns)	% dw	12.2	2.5	15.4	10.5	2.5	3.1
Fractional % phi 3-4 (62.5-125 microns)	% dw	4.5	2.3	11.1	5.8	6.0	6.0

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS512-010	LDW-SS513-010	LDW-SS514-010	LDW-SS515-010	LDW-SS516-010	LDW-SS517-010
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	4.5	6.2	7.1	10.3	8.7	9.7
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	5.4	14.6	11.4	7.8	15.2	13.2
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	7.3	18.7	11.5	9.4	16.1	13.5
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	5.9	15.4	10.9	6.1	11.8	10.1
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	4.3	10.7	4.7	4.7	7.4	7.1
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	3.4	7.7	4.1	3.2	4.8	4.6
Fractional % phi 10+ (<0.98 micron)	% dw	5.7	13.9	5.9	6.4	9.0	8.5
Total gravel	% dw	3.8	1.1	0.2	23.6	1.8	9.0
Total sand	% dw	59.8	11.8	44.2	28.6	25.1	24.2
Total silt	% dw	23.1	54.9	40.9	33.6	51.8	46.5
Total clay	% dw	13.4	32.3	14.7	14.3	21.2	20.2
Total fines (percent silt+clay)	% dw	36.5	87.2	55.6	47.9	73.0	66.7
Conventionals							
Total organic carbon (TOC)	% dw	1.74	2.13	1.63	2.86	1.96	2.40
Total solids	% ww	64.50	47.90	53.40	53.80	53.20	52.80

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS518-010	LDW-SS519-010	LDW-SS520-010	LDW-SS521-010	LDW-SS522-010	LDW-SS523-010
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.226 U	0.354 J	0.378	0.304 J	0.660 J	0.438 J
1,2,3,7,8-PeCDD	ng/kg dw	0.560 J	0.675 J	1.42	0.713 J	2.81 J	1.28 J
1,2,3,4,7,8-HxCDD	ng/kg dw	0.903 J	1.19 J	2.45	1.17 J	5.08 J	2.37 J
1,2,3,6,7,8-HxCDD	ng/kg dw	2.52 J	4.02 J	8.06	4.24 J	16.4	8.79
1,2,3,7,8,9-HxCDD	ng/kg dw	2.56 J	3.33 J	7.46	3.19 J	14.1	7.65
1,2,3,4,6,7,8-HpCDD	ng/kg dw	55.1	95.8	196	97.1	435	311
OCDD	ng/kg dw	525	892	1,910	984	4,150	3,960
2,3,7,8-TCDF	ng/kg dw	0.351 J	0.596 J	1.18	0.653 J	1.52	0.739 J
1,2,3,7,8-PeCDF	ng/kg dw	0.262 J	0.314 J	0.595 J	0.327 J	1.01 J	0.385 J
2,3,4,7,8-PeCDF	ng/kg dw	0.423 J	0.696 J	1.59	0.761 J	2.68 J	0.837 J
1,2,3,4,7,8-HxCDF	ng/kg dw	1.26 J	2.61 J	4.54	2.52 J	10.4	2.92 J
1,2,3,6,7,8-HxCDF	ng/kg dw	0.494 J	0.845 J	2.00	0.872 J	2.86 J	1.01 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.0670 J	0.121 J	0.146 J	0.0760 J	0.218 J	0.104 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.387 J	0.657 J	1.88 J	0.708 J	1.99 J	0.867 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	9.79	17.6	36.2	19.3	62.3	27.8
1,2,3,4,7,8,9-HpCDF	ng/kg dw	0.793 J	1.52 J	2.54	1.56 J	4.55 J	1.81 J
OCDF	ng/kg dw	36.4	74.8	142	90.4	290	125
Total TCDD	ng/kg dw	2.13	4.42	4.78	3.78	7.33	2.60
Total PeCDD	ng/kg dw	3.94	6.57	9.71	4.67	14.7	6.11
Total HxCDD	ng/kg dw	24.3	38.5	74.9	36.3	152	77.8
Total HpCDD	ng/kg dw	139	261	577	270	1,210	732
Total TCDF	ng/kg dw	6.11	10.6	22.8	11.5	25.8	8.75
Total PeCDF	ng/kg dw	6.68	12.1	28.1	12.7	39.4	14.4
Total HxCDF	ng/kg dw	14.8	30.3	57.8	32.3	103	41.8
Total HpCDF	ng/kg dw	30.3	65.8	128	74.9	233	91.0
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	2.49 J	4.02 J	8.03 J	4.10 J	15.9 J	9.06 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	0.1	0.1 U	1.3	0.1 U	0.1 U	6.8
Fractional % phi -1-0 (1000-2000 microns)	% dw	1.4	2.0	2.0	0.1 U	0.2	5.1
Fractional % phi 0-1 (500-1000 microns)	% dw	0.6	1.7	8.3	1.1	0.4	17.3
Fractional % phi 1-2 (250-500 microns)	% dw	0.4	1.6	21.3	1.6	0.7	29.4
Fractional % phi 2-3 (125-250 microns)	% dw	2.0	2.1	13.5	4.0	0.7	17.5
Fractional % phi 3-4 (62.5-125 microns)	% dw	13.6	8.6	6.0	17.3	1.3	10.2

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS518-010	LDW-SS519-010	LDW-SS520-010	LDW-SS521-010	LDW-SS522-010	LDW-SS523-010
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	10.8	10.8	4.0	14.2	6.6	5.3
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	17.7	17.6	8.6	13.7	18.5	1.8
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	15.1	16.5	10.0	13.9	27.9	1.7
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	13.6	13.3	9.1	12.6	18.3	1.4
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	9.7	9.3	5.6	7.7	10.3	1.3
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	5.3	5.6	3.3	4.7	5.3	1.1
Fractional % phi 10+ (<0.98 micron)	% dw	9.7	11.0	7.1	9.1	9.6	1.3
Total gravel	% dw	0.1	0.1 U	1.3	0.1 U	0.1 U	6.8
Total sand	% dw	18.0	16.0	51.1	24.0	3.3	79.5
Total silt	% dw	57.2	58.2	31.7	54.4	71.3	10.2
Total clay	% dw	24.7	25.9	16.0	21.5	25.2	3.7
Total fines (percent silt+clay)	% dw	81.9	84.1	47.7	75.9	96.5	13.9
Conventionals							
Total organic carbon (TOC)	% dw	2.06	2.17	2.10	2.18	2.86	0.982
Total solids	% ww	52.50	47.10	59.70 J	50.70	43.20	76.70

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS601-010 ^a	LDW-SS524-010	LDW-SS525-010	LDW-SS526-010	LDW-SS527-010	LDW-SS603-010 ^a
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	na	0.334 J	0.113 U	0.524 J	0.306 J	na
1,2,3,7,8-PeCDD	ng/kg dw	na	0.815 J	0.281 J	3.31 J	0.706 J	na
1,2,3,4,7,8-HxCDD	ng/kg dw	na	1.44 J	0.473 J	6.78	1.12 J	na
1,2,3,6,7,8-HxCDD	ng/kg dw	na	5.92 J	1.70 J	19.1	3.98 J	na
1,2,3,7,8,9-HxCDD	ng/kg dw	na	4.46 J	1.57 J	18.8	3.65 J	na
1,2,3,4,6,7,8-HpCDD	ng/kg dw	na	164	47.9	502	98.5	na
OCDD	ng/kg dw	na	1,630	487	4,480	970	na
2,3,7,8-TCDF	ng/kg dw	na	0.622 J	0.144 U	0.983 J	0.608 J	na
1,2,3,7,8-PeCDF	ng/kg dw	na	0.387 J	0.0940 J	0.538 J	0.329 J	na
2,3,4,7,8-PeCDF	ng/kg dw	na	0.914 J	0.236 J	1.44 J	0.763 J	na
1,2,3,4,7,8-HxCDF	ng/kg dw	na	2.93 J	1.01 J	4.98	2.65 J	na
1,2,3,6,7,8-HxCDF	ng/kg dw	na	1.03 J	0.299 J	2.24 J	0.890 J	na
1,2,3,7,8,9-HxCDF	ng/kg dw	na	0.0710 J	0.148 J	0.129 J	0.0770 J	na
2,3,4,6,7,8-HxCDF	ng/kg dw	na	0.820 J	0.247 J	1.79 J	0.660 J	na
1,2,3,4,6,7,8-HpCDF	ng/kg dw	na	23.4	8.46	74.7	17.6	na
1,2,3,4,7,8,9-HpCDF	ng/kg dw	na	1.64 J	0.505 J	4.72 J	1.36 J	na
OCDF	ng/kg dw	na	85.0	48.6	205	66.1	na
Total TCDD	ng/kg dw	na	4.31	0.247	5.67	3.33	na
Total PeCDD	ng/kg dw	na	5.69 J	1.52	14.9	5.30 J	na
Total HxCDD	ng/kg dw	na	52.1	16.3	139	36.6	na
Total HpCDD	ng/kg dw	na	397	122	1,030	271	na
Total TCDF	ng/kg dw	na	13.4	1.99	22.7	11.4	na
Total PeCDF	ng/kg dw	na	14.6	3.40	29.1	11.9	na
Total HxCDF	ng/kg dw	na	33.5	9.53	72.9	28.3	na
Total HpCDF	ng/kg dw	na	79.9	27.4	186	59.9	na
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	na	5.57 J	1.69 J	17.0 J	4.10 J	na
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	8.7	0.1 U	0.9	2.9	1.1	0.4
Fractional % phi -1-0 (1000-2000 microns)	% dw	5.6	0.2	0.5	3.8	0.3	2.7
Fractional % phi 0-1 (500-1000 microns)	% dw	17.3	0.3	19.3	24.6	0.9	2.1
Fractional % phi 1-2 (250-500 microns)	% dw	28.9	0.4	57.6	29.7	1.3	2.4
Fractional % phi 2-3 (125-250 microns)	% dw	17.2	1.4	8.6	15.9	2.3	4.6
Fractional % phi 3-4 (62.5-125 microns)	% dw	9.9	7.0	5.3	6.1	8.9	12.9

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS601-010 ^a	LDW-SS524-010	LDW-SS525-010	LDW-SS526-010	LDW-SS527-010	LDW-SS603-010 ^a
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	3.9	13.8	2.3	3.4	18.2	16.9
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	1.8	20.2	1.3	3.0	23.2	18.1
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	1.7	18.5	1.1	3.1	18.7	15.9
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	1.5	14.0	0.9	2.8	11.6	10.1
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	1.2	8.6	0.6	1.9	5.0	4.4
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	1.0	5.2	0.4	1.0	2.6	3.0
Fractional % phi 10+ (<0.98 micron)	% dw	1.1	10.1	1.2	1.6	6.1	6.3
Total gravel	% dw	8.7	0.1 U	0.9	2.9	1.1	0.4
Total sand	% dw	78.9	9.3	91.3	80.1	13.7	24.7
Total silt	% dw	8.9	66.5	5.6	12.3	71.7	61.0
Total clay	% dw	3.3	23.9	2.2	4.5	13.7	13.7
Total fines (percent silt+clay)	% dw	12.2	90.4	7.8	16.8	85.4	74.7
Conventionals							
Total organic carbon (TOC)	% dw	0.906	2.40	0.673	1.79	2.18	2.43
Total solids	% ww	77.80	47.40	73.67	68.80	47.13	47.40

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS528-010	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS532-010	LDW-SS533-043-comp
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.790 J	0.459	1.77	0.126 U	0.197 J	0.403
1,2,3,7,8-PeCDD	ng/kg dw	2.89 J	1.53	7.19	0.354 J	0.524 J	1.22
1,2,3,4,7,8-HxCDD	ng/kg dw	5.00 J	2.47	10.6	0.544 J	0.744 J	1.88
1,2,3,6,7,8-HxCDD	ng/kg dw	16.2	8.11	39.2	1.85	2.60 J	6.10
1,2,3,7,8,9-HxCDD	ng/kg dw	14.2	6.80	32.9	1.60	2.27 J	5.30
1,2,3,4,6,7,8-HpCDD	ng/kg dw	357	230	1,030	38.6	62.7	122
OCDD	ng/kg dw	3,330	2,370	9,590	365	737	980
2,3,7,8-TCDF	ng/kg dw	5.54	1.98	5.37	0.410 J	0.765 J	0.998 U
1,2,3,7,8-PeCDF	ng/kg dw	2.07 J	1.02	2.21 J	0.212 J	0.357 J	0.541 J
2,3,4,7,8-PeCDF	ng/kg dw	5.17	2.06	4.83	0.298 J	0.773 J	1.24
1,2,3,4,7,8-HxCDF	ng/kg dw	18.5	5.53	10.8	0.692 J	1.76 J	6.86
1,2,3,6,7,8-HxCDF	ng/kg dw	7.39	2.34	5.23	0.369 J	0.745 J	1.78
1,2,3,7,8,9-HxCDF	ng/kg dw	0.340 J	0.146 J	0.365 J	0.981 U	0.0530 U	0.150 J
2,3,4,6,7,8-HxCDF	ng/kg dw	3.52 J	1.81	4.86 J	0.293 J	0.604 J	1.22
1,2,3,4,6,7,8-HpCDF	ng/kg dw	65.2	34.2	95.5	6.47	14.0	32.0
1,2,3,4,7,8,9-HpCDF	ng/kg dw	7.35	3.25	6.76	0.361 J	0.864 J	3.29
OCDF	ng/kg dw	205	151	303	19.0	43.6	86.2
Total TCDD	ng/kg dw	12.0	12.0	18.1	2.30	3.32	6.20
Total PeCDD	ng/kg dw	21.1	18.2	42.9	3.67	4.47 J	9.20
Total HxCDD	ng/kg dw	145	64.8	463	17.6	29.4	47.3
Total HpCDD	ng/kg dw	892	427	4,510	126	251	242
Total TCDF	ng/kg dw	85.6	34.4	84.5	4.67	16.3	18.1
Total PeCDF	ng/kg dw	90.6	32.2	125	6.97	16.0	28.4
Total HxCDF	ng/kg dw	139	55.5	184	12.3	21.5	60.0
Total HpCDF	ng/kg dw	206	128	314	19.4	39.2	108
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	17.7 J	8.99 J	35.7 J	1.71 J	2.93 J	6.28 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	0.6	24.1	1.7	9.6	1.8	13.1
Fractional % phi -1-0 (1000-2000 microns)	% dw	0.8	6.2	3.3	5.7	2.1	4.5
Fractional % phi 0-1 (500-1000 microns)	% dw	1.1	15.8	9.2	15.9	2.9	9.9
Fractional % phi 1-2 (250-500 microns)	% dw	0.7	24.1	17.8	29.4	7.9	30.6
Fractional % phi 2-3 (125-250 microns)	% dw	1.0	11.5	12.4	12.9	12.9	18.1
Fractional % phi 3-4 (62.5-125 microns)	% dw	2.5	6.2	14.0	4.6	25.8	7.1

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS528-010	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS532-010	LDW-SS533-043-comp
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	8.5	2.7	10.8	4.5	20.3	4.5
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	31.7	2.4	9.2	3.2	9.4	3.4
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	27.5	2.2	7.2	3.5	5.8	2.6
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	9.3	1.9	4.9	3.4	3.8	1.7
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	5.0	1.1	3.4	2.8	2.7	1.5
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	3.4	0.7	2.8	1.8	1.4	1.0
Fractional % phi 10+ (<0.98 micron)	% dw	7.9	1.3	3.3	2.7	3.2	2.0
Total gravel	% dw	0.6	24.1	1.7	9.6	1.8	13.1
Total sand	% dw	6.1	63.8	56.7	68.5	51.6	70.2
Total silt	% dw	77.0	9.2	32.1	14.6	39.3	12.2
Total clay	% dw	16.3	3.1	9.5	7.3	7.3	4.5
Total fines (percent silt+clay)	% dw	93.3	12.3	41.6	21.9	46.6	16.7
Conventionals							
Total organic carbon (TOC)	% dw	3.04	1.47	1.56	1.23	2.27	1.40
Total solids	% ww	40.80	75.60 J	81.20	73.30	51.30	74.40

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS534-010	LDW-SS535-010	LDW-SS536-010	LDW-SS537-010	LDW-SS538-010	LDW-SS539-010
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.179 J	0.303 U	0.155 J	0.250 J	0.689 J	0.152 U
1,2,3,7,8-PeCDD	ng/kg dw	0.370 J	1.43 J	0.260 J	0.790 J	1.91 J	0.270 J
1,2,3,4,7,8-HxCDD	ng/kg dw	0.630 J	2.26 J	0.375 J	1.27 J	2.39 J	0.389 J
1,2,3,6,7,8-HxCDD	ng/kg dw	2.42 J	6.20	1.17 J	4.93 J	12.1	1.29 J
1,2,3,7,8,9-HxCDD	ng/kg dw	1.89 J	6.09	1.10 J	3.52 J	9.28	1.12 J
1,2,3,4,6,7,8-HpCDD	ng/kg dw	59.3	142	25.4	111	361	26.1
OCDD	ng/kg dw	632	1,520	262	1,020	4,440	258
2,3,7,8-TCDF	ng/kg dw	0.389 J	1.23	0.219 J	0.605 J	3.39	0.236 U
1,2,3,7,8-PeCDF	ng/kg dw	0.231 J	0.617 J	0.107 J	0.339 J	1.56 J	0.135 J
2,3,4,7,8-PeCDF	ng/kg dw	0.505 J	1.53 J	0.215 J	0.726 J	4.38 J	0.246 J
1,2,3,4,7,8-HxCDF	ng/kg dw	2.16 J	4.70 J	0.650 J	2.16 J	16.6	0.834 J
1,2,3,6,7,8-HxCDF	ng/kg dw	0.578 J	1.97 J	0.244 J	0.849 J	5.40	0.300 J
1,2,3,7,8,9-HxCDF	ng/kg dw	4.80 U	0.0840 U	5.24 U	0.0900 J	0.301 J	5.14 U
2,3,4,6,7,8-HxCDF	ng/kg dw	0.472 J	1.40 J	0.197 J	0.771 J	3.26 J	0.258 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	11.4	25.4	4.91 J	22.2	67.6	5.44
1,2,3,4,7,8,9-HpCDF	ng/kg dw	0.969 J	2.10 J	0.368 J	1.41 J	7.87	0.393 J
OCDF	ng/kg dw	44.6	87.6	17.1	73.2	234	22.1
Total TCDD	ng/kg dw	2.08	3.55	1.16 J	2.59	8.31	0.959 J
Total PeCDD	ng/kg dw	2.63	7.85	1.54 J	4.40 J	13.4	2.02 J
Total HxCDD	ng/kg dw	21.5	58.0	10.2	39.7	115	11.2
Total HpCDD	ng/kg dw	180	515	61.4	293	976	63.7
Total TCDF	ng/kg dw	6.38	18.3	3.65	10.1	43.2	3.87
Total PeCDF	ng/kg dw	8.38	32.5	3.44 J	12.7	57.6	3.65 J
Total HxCDF	ng/kg dw	18.5	49.4	7.49	30.9	113	9.27
Total HpCDF	ng/kg dw	39.4	81.0	14.7	65.6	219	18.4
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	2.72 J	6.63 J	1.53 J	4.36 J	15.0 J	1.52 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	1.7	42.3	0.1 U	0.1 U	0.5	0.2
Fractional % phi -1-0 (1000-2000 microns)	% dw	2.3	6.5	0.1 U	0.8	1.7	0.6
Fractional % phi 0-1 (500-1000 microns)	% dw	12.6	7.9	0.4	7.1	5.9	8.2
Fractional % phi 1-2 (250-500 microns)	% dw	36.1	21.8	2.2	16.6	15.4	28.3
Fractional % phi 2-3 (125-250 microns)	% dw	10.3	12.1	65.7	13.2	12.4	24.7
Fractional % phi 3-4 (62.5-125 microns)	% dw	7.0	2.9	13.8	11.5	10.5	8.7

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

	Unit	LDW-SS534-010	LDW-SS535-010	LDW-SS536-010	LDW-SS537-010	LDW-SS538-010	LDW-SS539-010
na - data not available							
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	7.7	0.5	4.7	7.7	15.1	10.8
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	7.0	2.1	4.3	12.1	11.8	6.0
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	5.4	0.5	3.3	12.3	9.9	4.3
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	3.5	0.9	1.9	7.6	5.7	2.7
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	2.0	0.8	0.8	3.7	3.4	1.7
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	1.5	0.4	0.7	2.3	2.5	1.1
Fractional % phi 10+ (<0.98 micron)	% dw	3.0	1.1	2.0	5.0	5.2	2.7
Total gravel	% dw	1.7	42.3	0.1 U	0.1 U	0.5	0.2
Total sand	% dw	68.3	51.2	82.1	49.2	45.9	70.5
Total silt	% dw	23.6	4.0	14.2	39.7	42.5	23.8
Total clay	% dw	6.5	2.3	3.5	11.0	11.1	5.5
Total fines (percent silt+clay)	% dw	30.1	6.3	17.7	50.7	53.6	29.3
Conventionals							
Total organic carbon (TOC)	% dw	1.72	1.38	1.05	1.54	2.15	1.37
Total solids	% ww	64.60	69.00	65.80	54.30	60.10	67.10

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS540-010	LDW-SS541-010	LDW-SS542-010	LDW-SS543-010	LDW-SS544-010-comp	LDW-SS545-010
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.605 J	0.126 J	0.351 J	0.205 U	0.606	0.0610 J
1,2,3,7,8-PeCDD	ng/kg dw	1.56 J	0.220 J	0.568 J	0.479 J	0.690 J	0.0700 J
1,2,3,4,7,8-HxCDD	ng/kg dw	1.92 J	0.354 U	0.641 J	0.738 J	0.911 J	0.123 J
1,2,3,6,7,8-HxCDD	ng/kg dw	5.82	1.92 J	2.11 J	2.20 J	2.87	0.197 J
1,2,3,7,8,9-HxCDD	ng/kg dw	6.91	1.06 J	1.96 J	2.20 J	2.73	0.198 J
1,2,3,4,6,7,8-HpCDD	ng/kg dw	96.8	50.7	39.5	42.8	60.1	2.77 J
OCDD	ng/kg dw	769	496	367	373	548	21.5
2,3,7,8-TCDF	ng/kg dw	1.87	0.269 J	0.423 U	0.370 J	0.927 J	0.0740 U
1,2,3,7,8-PeCDF	ng/kg dw	0.712 J	0.119 J	0.238 J	0.181 J	0.414 U	4.51 U
2,3,4,7,8-PeCDF	ng/kg dw	2.15 J	0.287 J	0.424 J	0.328 J	0.948	0.0590 U
1,2,3,4,7,8-HxCDF	ng/kg dw	4.19 J	5.57	1.13 J	1.01 J	2.60	0.129 J
1,2,3,6,7,8-HxCDF	ng/kg dw	1.55 J	0.906 J	0.500 J	0.424 J	1.16	0.0610 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.0930 U	0.0630 J	0.0630 U	0.0440 J	0.102 U	0.0760 J
2,3,4,6,7,8-HxCDF	ng/kg dw	1.35 J	0.391 J	0.387 J	0.358 J	0.843 J	0.0740 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	17.9	35.1	8.27	8.78	14.0	0.750 J
1,2,3,4,7,8,9-HpCDF	ng/kg dw	2.18 J	3.06 J	0.577 J	0.609 J	1.15	0.120 J
OCDF	ng/kg dw	56.4	70.3	27.3	32.5	46.0	2.04 J
Total TCDD	ng/kg dw	9.34	1.04	2.14	1.76	4.78	0.122 J
Total PeCDD	ng/kg dw	13.4	1.21	3.79 J	3.35 J	5.70	0.0700 J
Total HxCDD	ng/kg dw	58.9	10.9	18.3	19.0	26.7	1.55 J
Total HpCDD	ng/kg dw	235	105	93.6	105	134	6.44
Total TCDF	ng/kg dw	36.0	2.83	6.85	5.70	19.4	0.337 J
Total PeCDF	ng/kg dw	45.5	4.30	8.26	6.18	18.1	0.0640 J
Total HxCDF	ng/kg dw	41.9	34.5	13.8	15.1	27.1	1.35 J
Total HpCDF	ng/kg dw	52.1	112	25.3	28.7	46.0	2.08 J
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	6.61 J	2.53 J	2.35 J	2.06 J	3.73 J	0.341 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	4.1	0.1	0.3	0.1 U	0.3	2.0
Fractional % phi -1-0 (1000-2000 microns)	% dw	3.9	0.3	0.6	2.0	1.2	14.8
Fractional % phi 0-1 (500-1000 microns)	% dw	7.9	1.4	1.9	0.9	5.5	41.0
Fractional % phi 1-2 (250-500 microns)	% dw	11.2	19.4	11.9	1.2	14.8	28.1
Fractional % phi 2-3 (125-250 microns)	% dw	10.0	48.5	19.4	6.8	11.7	7.9
Fractional % phi 3-4 (62.5-125 microns)	% dw	16.4	9.0	21.8	15.4	16.8	2.8

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS540-010	LDW-SS541-010	LDW-SS542-010	LDW-SS543-010	LDW-SS544-010-comp	LDW-SS545-010
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	15.0	7.1	16.9	17.6	13.9	1.2
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	10.2	4.0	9.3	20.9	13.2	0.5
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	6.9	3.3	6.7	15.4	7.4	0.4
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	5.4	2.4	4.2	8.3	4.6	0.4
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	2.8	1.1	2.3	3.4	3.4	0.2
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	2.4	1.0	1.8	2.4	2.2	0.1
Fractional % phi 10+ (<0.98 micron)	% dw	3.8	2.5	2.8	5.7	5.1	0.7
Total gravel	% dw	4.1	0.1	0.3	0.1 U	0.3	2.0
Total sand	% dw	49.4	78.6	55.6	26.3	50.0	94.6
Total silt	% dw	37.5	16.8	37.1	62.2	39.0	2.5
Total clay	% dw	9.0	4.6	6.9	11.5	10.7	1.0
Total fines (percent silt+clay)	% dw	46.5	21.4	44.0	73.7	49.7	3.5
Conventionals							
Total organic carbon (TOC)	% dw	1.45	1.10	1.16	3.64	1.88	1.01
Total solids	% ww	58.50	69.90	62.00	45.40	62.70	77.40

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS546-010	LDW-SS547-010
Dioxin/furan			
2,3,7,8-TCDD	ng/kg dw	0.276 U	0.299 U
1,2,3,7,8-PeCDD	ng/kg dw	0.546 J	0.942 J
1,2,3,4,7,8-HxCDD	ng/kg dw	0.948 J	1.21
1,2,3,6,7,8-HxCDD	ng/kg dw	2.77 J	3.61
1,2,3,7,8,9-HxCDD	ng/kg dw	2.55 J	3.81
1,2,3,4,6,7,8-HpCDD	ng/kg dw	52.3	76.5
OCDD	ng/kg dw	469	754
2,3,7,8-TCDF	ng/kg dw	0.693 U	0.859 J
1,2,3,7,8-PeCDF	ng/kg dw	0.238 J	0.350 J
2,3,4,7,8-PeCDF	ng/kg dw	0.461 J	0.795 J
1,2,3,4,7,8-HxCDF	ng/kg dw	0.963 J	1.64
1,2,3,6,7,8-HxCDF	ng/kg dw	0.532 J	0.897
1,2,3,7,8,9-HxCDF	ng/kg dw	0.0580 J	0.0710 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.463 J	0.843 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	10.2	14.0
1,2,3,4,7,8,9-HpCDF	ng/kg dw	0.650 J	0.931
OCDF	ng/kg dw	34.2	53.7
Total TCDD	ng/kg dw	2.37	5.48
Total PeCDD	ng/kg dw	3.95 J	7.69
Total HxCDD	ng/kg dw	22.5	34.2
Total HpCDD	ng/kg dw	122	175
Total TCDF	ng/kg dw	7.37	16.1
Total PeCDF	ng/kg dw	7.20	24.5
Total HxCDF	ng/kg dw	16.2	28.2
Total HpCDF	ng/kg dw	30.2	50.1
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	2.48 J	3.79 J
Grain size			
Fractional % phi >-1 (>2000 microns)	% dw	1.1	1.4
Fractional % phi -1-0 (1000-2000 microns)	% dw	2.6	1.2
Fractional % phi 0-1 (500-1000 microns)	% dw	13.2	1.9
Fractional % phi 1-2 (250-500 microns)	% dw	20.3	8.0
Fractional % phi 2-3 (125-250 microns)	% dw	8.8	17.9
Fractional % phi 3-4 (62.5-125 microns)	% dw	15.4	16.5

Table A-1-1. Results for dioxins and furans, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

na - data not available	Unit	LDW-SS546-010	LDW-SS547-010
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	12.1	12.7
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	7.1	14.1
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	5.9	9.5
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	4.6	6.3
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	3.5	4.6
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	2.5	2.5
Fractional % phi 10+ (<0.98 micron)	% dw	2.9	3.3
Total gravel	% dw	1.1	1.4
Total sand	% dw	60.3	45.5
Total silt	% dw	29.7	42.6
Total clay	% dw	8.9	10.4
Total fines (percent silt+clay)	% dw	38.6	53.0
Conventionals			
Total organic carbon (TOC)	% dw	2.60	2.04
Total solids	% ww	58.90	52.30 J

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HpCDD – heptachlorodibenzo-*p*-dioxin

HpCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-*p*-dioxin

HxCDF – hexachlorodibenzofuran

J – estimated concentration

na - data not available

OCDD – octachlorodibenzo-*p*-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-*p*-dioxin

PeCDF – pentachlorodibenzofuran

TCDD – tetrachlorodibenzo-*p*-dioxin

TCDF – tetrachlorodibenzofuran

TEQ - toxic equivalent

U – not detected at reporting limit shown

ww – wet weight

Table A-1-2. Results for SMS chemicals in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS508-010	LDW-SS509-010	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS525-010	LDW-SS526-010	LDW-SS527-010
Metals										
Antimony	mg/kg dw	1 J	na	na	na	na	na	na	na	0.4 UJ
Arsenic	mg/kg dw	25.3	9.6	11.3	18.1	5.1	na	3.8	7.5	18.5
Cadmium	mg/kg dw	0.3 U	na	na	na	na	na	na	na	0.4 U
Chromium	mg/kg dw	16.7	na	na	na	na	na	na	na	20
Cobalt	mg/kg dw	4.6	na	na	na	na	na	na	na	6.7
Copper	mg/kg dw	37.3	na	na	na	na	na	na	na	31.4
Lead	mg/kg dw	50	na	na	na	na	na	na	na	10
Mercury	mg/kg dw	0.03 U	na	na	na	na	na	na	na	0.09 J
Molybdenum	mg/kg dw	2.2	na	na	na	na	na	na	na	1 U
Nickel	mg/kg dw	13 J	na	na	na	na	na	na	na	16 J
Selenium	mg/kg dw	0.7 U	na	na	na	na	na	na	na	0.9 U
Silver	mg/kg dw	0.4 U	na	na	na	na	na	na	na	0.6 U
Thallium	mg/kg dw	0.3 U	na	na	na	na	na	na	na	0.4 U
Vanadium	mg/kg dw	34.4	na	na	na	na	na	na	na	46.9
Zinc	mg/kg dw	133	na	na	na	na	na	na	na	62
PAHs										
1-Methylnaphthalene	µg/kg dw	na	31	4.8 U	55	4.8 U	4.8 U	4.8 U	9.0	na
2-Chloronaphthalene	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
2-Methylnaphthalene	µg/kg dw	20 U	22	4.8 U	58	4.8 U	4.8 U	4.8 U	11	20 U
Acenaphthene	µg/kg dw	20 U	28	4.8 U	92	4.8	6.3	4.8	26	11 J
Acenaphthylene	µg/kg dw	17 J	46	4.8 U	290	9.5	10	4.8 U	13	20 U
Anthracene	µg/kg dw	66	84	4.8 U	740	22	32	7.7	100	30
Benzo(a)anthracene	µg/kg dw	250	260	4.8 U	1,800	65	94	27	310	94
Benzo(a)pyrene	µg/kg dw	260	290	4.8 U	2,100	72	110	24	320	86
Benzo(b)fluoranthene	µg/kg dw	180 J	210 J	4.8 U	1,600 J	85 J	110 J	29 J	290 J	87 J
Benzo(g,h,i)perylene	µg/kg dw	140	180	4.8 U	1,400	66	81	15	190	54
Benzo(k)fluoranthene	µg/kg dw	180 J	210 J	4.8 U	1,600 J	85 J	110 J	29 J	290 J	87 J
Total benzofluoranthenes	µg/kg dw	360 J	420 J	4.8 U	3,200 J	170 J	220 J	58 J	580 J	174 J
Chrysene	µg/kg dw	300	390	4.8 U	2,600	150	180	51	500	150
Dibenzo(a,h)anthracene	µg/kg dw	62	45	4.8 U	500	17	26	5.8	70	26
Dibenzofuran	µg/kg dw	20 U	13	4.8 U	75	4.8 U	4.8 U	4.8	15	20 U
Fluoranthene	µg/kg dw	460	870	4.8 U	4,100	150	230 J	88	900	190
Fluorene	µg/kg dw	16 J	47	4.8 U	200	6.2	6.3	5.3	27	11 J
Indeno(1,2,3-cd)pyrene	µg/kg dw	130	150	4.8 U	1,200	49	68	14	170	50
Naphthalene	µg/kg dw	20 U	38	4.8 U	92	5.7	4.8 U	4.8 U	5.7	20 U
Phenanthrene	µg/kg dw	190	300	4.8 U	2,200	42	81	43	350	67
Pyrene	µg/kg dw	460	640	4.8 U	4,000	90	150	51	570	170
Total HPAHs	µg/kg dw	2,420 J	3,250 J	4.8 U	20,900 J	830 J	1,160 J	334 J	3,610 J	990 J
Total LPAHs	µg/kg dw	290 J	540	4.8 U	3,600	90	136	61	520	119 J
Total cPAHs	µg/kg dw	360 J	390 J	4.3 U	2,900 J	110 J	160 J	37 J	460 J	130 J

Table A-1-2. Results for SMS chemicals in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS508-010	LDW-SS509-010	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS525-010	LDW-SS526-010	LDW-SS527-010
Total PAHs	µg/kg dw	2,710 J	3,790 J	4.8 U	24,500 J	920 J	1,290 J	395 J	4,130 J	1,110 J
Phthalates										
Bis(2-ethylhexyl)phthalate	µg/kg dw	150	na	na	na	na	na	na	na	320
Butyl benzyl phthalate	µg/kg dw	25	na	na	na	na	na	na	na	22
Diethyl phthalate	µg/kg dw	15 U	na	na	na	na	na	na	na	15 U
Dimethyl phthalate	µg/kg dw	15 U	na	na	na	na	na	na	na	15 U
Di-n-butyl phthalate	µg/kg dw	20 U	na	na	na	na	na	na	na	20
Di-n-octyl phthalate	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
Other SVOCs										
1,2,4-Trichlorobenzene	µg/kg dw	6.1 U	na	na	na	na	na	na	na	6.2 U
1,2-Dichlorobenzene	µg/kg dw	6.1 U	na	na	na	na	na	na	na	6.2 U
1,3-Dichlorobenzene	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
1,4-Dichlorobenzene	µg/kg dw	6.1 U	na	na	na	na	na	na	na	6.2 U
2,4,5-Trichlorophenol	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
2,4,6-Trichlorophenol	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
2,4-Dichlorophenol	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
2,4-Dimethylphenol	µg/kg dw	6.1 U	na	na	na	na	na	na	na	6.2 U
2,4-Dinitrophenol	µg/kg dw	200 UJ	na	na	na	na	na	na	na	200 UJ
2,4-Dinitrotoluene	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
2,6-Dinitrotoluene	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
2-Chlorophenol	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
2-Methylphenol	µg/kg dw	6.1 U	na	na	na	na	na	na	na	6.2 U
2-Nitroaniline	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
2-Nitrophenol	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
3,3'-Dichlorobenzidine	µg/kg dw	99 UJ	na	na	na	na	na	na	na	99 UJ
3-Nitroaniline	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
4,6-Dinitro-o-cresol	µg/kg dw	200 U	na	na	na	na	na	na	na	200 U
4-Bromophenyl phenyl ether	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
4-Chloro-3-methylphenol	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
4-Chloroaniline	µg/kg dw	99 UJ	na	na	na	na	na	na	na	99 UJ
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
4-Methylphenol	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
4-Nitroaniline	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
4-Nitrophenol	µg/kg dw	99 U	na	na	na	na	na	na	na	99 U
Aniline	µg/kg dw	20 UJ	na	na	na	na	na	na	na	20 UJ
Benzoic acid	µg/kg dw	50 J	na	na	na	na	na	na	na	48 J
Benzyl alcohol	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
bis(2-chloroethoxy)methane	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
bis(2-chloroethyl)ether	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
Carbazole	µg/kg dw	14 J	na	na	na	na	na	na	na	20 U

Table A-1-2. Results for SMS chemicals in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS508-010	LDW-SS509-010	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS525-010	LDW-SS526-010	LDW-SS527-010
Hexachlorobenzene	µg/kg dw	6.1 UJ	na	na	na	na	na	na	na	6.2 UJ
Hexachlorobutadiene	µg/kg dw	6.1 U	na	na	na	na	na	na	na	6.2 U
Hexachlorocyclopentadiene	µg/kg dw	99 UJ	na	na	na	na	na	na	na	99 UJ
Hexachloroethane	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
Isophorone	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
n-Nitroso-di-n-propylamine	µg/kg dw	30 U	na	na	na	na	na	na	na	31 U
n-Nitrosodimethylamine	µg/kg dw	30 U	na	na	na	na	na	na	na	31 U
n-Nitrosodiphenylamine	µg/kg dw	6.1 UJ	na	na	na	na	na	na	na	6.2 UJ
Nitrobenzene	µg/kg dw	20 U	na	na	na	na	na	na	na	20 U
Pentachlorophenol	µg/kg dw	30 U	na	na	na	na	na	na	na	31 U
Phenol	µg/kg dw	17 J	na	na	na	na	na	na	na	21
PCBs										
Aroclor-1016	µg/kg dw	20 U	3.8 U	0.8 U	48 U	20 U	na	3.9 U	20 U	4.0 U
Aroclor-1221	µg/kg dw	20 U	3.8 U	0.8 U	48 U	20 U	na	3.9 U	20 U	4.0 U
Aroclor-1232	µg/kg dw	20 U	3.8 U	0.8 U	48 U	20 U	na	3.9 U	20 U	4.0 U
Aroclor-1242	µg/kg dw	20 U	3.8 U	0.8 U	48 U	20 U	na	3.9 U	20 U	4.0 U
Aroclor-1248	µg/kg dw	20 U	3.8 U	0.8 U	190 U	20 U	na	4.8	99 U	23
Aroclor-1254	µg/kg dw	60	16	0.8 U	410	34	na	8.3	260	37
Aroclor-1260	µg/kg dw	26	10	0.8 U	150	32	na	6.5	100	31
Aroclor-1262	µg/kg dw	20 U	3.8 U	0.8 U	48 U	20 U	na	3.9 U	20 U	4.0 U
Aroclor-1268	µg/kg dw	20 UJ	3.8 UJ	0.8 UJ	48 UJ	20 UJ	na	3.9 UJ	20 UJ	4.0 UJ
Total PCBs	µg/kg dw	86	26	0.8 UJ	560	66	na	19.6	360	91

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight

polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

Table A-1-2. Results for SMS chemicals in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS603-010 ^a	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS533-043-comp	LDW-SS544-010-comp	LDW-SS547-010
Metals								
Antimony	mg/kg dw	0.4 UJ	na	na	na	na	na	na
Arsenic	mg/kg dw	16.7	93.8	19.1	6.4	4.3	6.4	8.3
Cadmium	mg/kg dw	0.4 U	na	na	na	na	na	na
Chromium	mg/kg dw	25.8	na	na	na	na	na	na
Cobalt	mg/kg dw	8.6	na	na	na	na	na	na
Copper	mg/kg dw	39.7	na	na	na	na	na	na
Lead	mg/kg dw	15	na	na	na	na	na	na
Mercury	mg/kg dw	0.10 J	na	na	na	na	na	na
Molybdenum	mg/kg dw	0.9 U	na	na	na	na	na	na
Nickel	mg/kg dw	21 J	na	na	na	na	na	na
Selenium	mg/kg dw	1 U	na	na	na	na	na	na
Silver	mg/kg dw	0.6 U	na	na	na	na	na	na
Thallium	mg/kg dw	0.4 U	na	na	na	na	na	na
Vanadium	mg/kg dw	60.7	na	na	na	na	na	na
Zinc	mg/kg dw	80	na	na	na	na	na	na
PAHs								
1-Methylnaphthalene	µg/kg dw	na	26	560	4.9 U	4.7 U	4.8 U	4.7 U
2-Chloronaphthalene	µg/kg dw	20 U	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	20 U	29	660	4.9 U	5.1	4.8 U	4.7 U
Acenaphthene	µg/kg dw	11 J	330	970	4.9 U	7.5	4.8 U	4.7 U
Acenaphthylene	µg/kg dw	20 U	15	150	22	4.7 U	4.8 U	4.7 U
Anthracene	µg/kg dw	31	2,000	1,800	30	12	4.8	11
Benzo(a)anthracene	µg/kg dw	90	7,500	3,100	48	36	16	62
Benzo(a)pyrene	µg/kg dw	94	4,900	3,200	51	42	19	77
Benzo(b)fluoranthene	µg/kg dw	94 J	3,900 J	2,200 J	48 J	36 J	20 J	71 J
Benzo(g,h,i)perylene	µg/kg dw	46	2,200	2,300	68	34	20	63
Benzo(k)fluoranthene	µg/kg dw	94 J	3,900 J	2,200 J	48 J	36 J	20 J	71 J
Total benzofluoranthenes	µg/kg dw	188 J	7,800 J	4,400 J	96 J	72 J	40 J	142 J
Chrysene	µg/kg dw	140	7,900	3,800	67	51	23	92
Dibenzo(a,h)anthracene	µg/kg dw	22	870	580	15	12	5.7	25
Dibenzofuran	µg/kg dw	11 J	120	460	4.9 U	4.7 U	4.8 U	4.7 U
Fluoranthene	µg/kg dw	230	16,000	8,100	100	88	44	170
Fluorene	µg/kg dw	11 J	300	820	4.9 U	4.7	4.8 U	4.7 U
Indeno(1,2,3-cd)pyrene	µg/kg dw	45	2,000	1,600	41	27	14	51
Naphthalene	µg/kg dw	20 U	62	1,000	4.9 U	4.7 U	4.8 U	4.7 U
Phenanthrene	µg/kg dw	94	2,600	7,100	30	32	17	50
Pyrene	µg/kg dw	170	12,000	7,400	67	79	32	120
Total HPAHs	µg/kg dw	1,030 J	61,000 J	34,500 J	550 J	441 J	214 J	800 J
Total LPAHs	µg/kg dw	147 J	5,300	11,800	82	56	22	61
Total cPAHs	µg/kg dw	140 J	7,100 J	4,400 J	76 J	61 J	29 J	110 J

Table A-1-2. Results for SMS chemicals in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS603-010 ^a	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS533-043-comp	LDW-SS544-010-comp	LDW-SS547-010
Total PAHs	µg/kg dw	1,170 J	66,000 J	46,300 J	640 J	497 J	236 J	860 J
Phthalates								
Bis(2-ethylhexyl)phthalate	µg/kg dw	230	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	22	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	15 U	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	180	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	37	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	20 U	na	na	na	na	na	na
Other SVOCs								
1,2,4-Trichlorobenzene	µg/kg dw	6.1 U	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	6.1 U	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	20 U	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	6.1 U	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	99 U	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	99 U	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	99 U	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	6.1 U	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	200 UJ	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	99 U	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	99 U	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	20 U	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	6.1 U	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	99 U	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	99 U	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	99 UJ	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	99 U	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	200 U	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	20 U	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	99 U	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	99 UJ	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	20 U	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	99 U	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	99 U	na	na	na	na	na	na
Aniline	µg/kg dw	20 UJ	na	na	na	na	na	na
Benzoic acid	µg/kg dw	62 J	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	20 U	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	20 U	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	20 U	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	na	na	na	na	na	na
Carbazole	µg/kg dw	11 J	na	na	na	na	na	na

Table A-1-2. Results for SMS chemicals in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS603-010 ^a	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS533-043-comp	LDW-SS544-010-comp	LDW-SS547-010
Hexachlorobenzene	µg/kg dw	6.1 UJ	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	6.1 U	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	99 UJ	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	20 U	na	na	na	na	na	na
Isophorone	µg/kg dw	20 U	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	30 U	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	30 U	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	6.1 UJ	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	20 U	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	30 U	na	na	na	na	na	na
Phenol	µg/kg dw	20	na	na	na	na	na	na
PCBs								
Aroclor-1016	µg/kg dw	4.0 U	19 U	31 U	3.9 U	20 U	3.9 U	3.9 U
Aroclor-1221	µg/kg dw	4.0 U	19 U	31 U	3.9 U	20 U	3.9 U	3.9 U
Aroclor-1232	µg/kg dw	4.0 U	19 U	31 U	3.9 U	20 U	3.9 U	3.9 U
Aroclor-1242	µg/kg dw	4.0 U	19 U	31 U	3.9 U	20 U	3.9 U	3.9 U
Aroclor-1248	µg/kg dw	23	290 U	320	4.9 U	75	31	12 U
Aroclor-1254	µg/kg dw	35	860	390	11	140	55	18
Aroclor-1260	µg/kg dw	20	150 U	150	10	64	41	12
Aroclor-1262	µg/kg dw	4.0 U	19 U	31 U	3.9 U	20 U	3.9 U	3.9 U
Aroclor-1268	µg/kg dw	4.0 UJ	19 UJ	31 UJ	3.9 UJ	20 UJ	3.9 UJ	3.9 UJ
Total PCBs	µg/kg dw	78	860	860	21	280	127	30

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight

polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS501-010	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS504-010	LDW-SS505-010	LDW-SS506-010	LDW-SS507-010	LDW-SS602-010 ^a
Metals									
Antimony	mg/kg dw	na	1 J	na	na	na	na	na	na
Arsenic	mg/kg dw	na	25.3	9.6	na	na	na	na	na
Cadmium	mg/kg dw	na	0.3 U	na	na	na	na	na	na
Chromium	mg/kg dw	na	16.7	na	na	na	na	na	na
Cobalt	mg/kg dw	na	4.6	na	na	na	na	na	na
Copper	mg/kg dw	na	37.3	na	na	na	na	na	na
Lead	mg/kg dw	na	50	na	na	na	na	na	na
Mercury	mg/kg dw	na	0.03 U	na	na	na	na	na	na
Molybdenum	mg/kg dw	na	2.2	na	na	na	na	na	na
Nickel	mg/kg dw	na	13 J	na	na	na	na	na	na
Selenium	mg/kg dw	na	0.7 U	na	na	na	na	na	na
Silver	mg/kg dw	na	0.4 U	na	na	na	na	na	na
Thallium	mg/kg dw	na	0.3 U	na	na	na	na	na	na
Vanadium	mg/kg dw	na	34.4	na	na	na	na	na	na
Zinc	mg/kg dw	na	133	na	na	na	na	na	na
PAHs									
1-Methylnaphthalene	µg/kg dw	na	na	31	na	na	na	na	na
2-Chloronaphthalene	µg/kg dw	na	20 U	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	na	20 U	22	na	na	na	na	na
Acenaphthene	µg/kg dw	na	20 U	28	na	na	na	na	na
Acenaphthylene	µg/kg dw	na	17 J	46	na	na	na	na	na
Anthracene	µg/kg dw	na	66	84	na	na	na	na	na
Benzo(a)anthracene	µg/kg dw	na	250	260	na	na	na	na	na
Benzo(a)pyrene	µg/kg dw	na	260	290	na	na	na	na	na
Benzo(b)fluoranthene	µg/kg dw	na	180 J	210 J	na	na	na	na	na
Benzo(g,h,i)perylene	µg/kg dw	na	140	180	na	na	na	na	na
Benzo(k)fluoranthene	µg/kg dw	na	180 J	210 J	na	na	na	na	na
Total benzofluoranthenes	µg/kg dw	na	360 J	420 J	na	na	na	na	na
Chrysene	µg/kg dw	na	300	390	na	na	na	na	na
Dibenzo(a,h)anthracene	µg/kg dw	na	62	45	na	na	na	na	na
Dibenzofuran	µg/kg dw	na	20 U	13	na	na	na	na	na
Fluoranthene	µg/kg dw	na	460	870	na	na	na	na	na
Fluorene	µg/kg dw	na	16 J	47	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	µg/kg dw	na	130	150	na	na	na	na	na
Naphthalene	µg/kg dw	na	20 U	38	na	na	na	na	na
Phenanthrene	µg/kg dw	na	190	300	na	na	na	na	na
Pyrene	µg/kg dw	na	460	640	na	na	na	na	na
Total HPAHs	µg/kg dw	na	2,420 J	3,250 J	na	na	na	na	na
Total LPAHs	µg/kg dw	na	290 J	540	na	na	na	na	na
Total cPAHs	µg/kg dw	na	360 J	390 J	na	na	na	na	na
Total PAHs	µg/kg dw	na	2,710 J	3,790 J	na	na	na	na	na
Phthalates									

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS501-010	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS504-010	LDW-SS505-010	LDW-SS506-010	LDW-SS507-010	LDW-SS602-010 ^a
Bis(2-ethylhexyl)phthalate	µg/kg dw	na	150	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	na	25	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	na	15 U	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	na	15 U	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	na	20 U	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	na	20 U	na	na	na	na	na	na
Other SVOCs									
1,2,4-Trichlorobenzene	µg/kg dw	na	6.1 U	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	na	6.1 U	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	na	20 U	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	na	6.1 U	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	na	99 U	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	na	99 U	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	na	99 U	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	na	6.1 U	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	na	200 UJ	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	na	99 U	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	na	99 U	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	na	20 U	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	na	6.1 U	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	na	99 U	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	na	99 U	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	na	99 UJ	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	na	99 U	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	na	200 U	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	na	20 U	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	na	99 U	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	na	99 UJ	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	na	20 U	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	na	20 U	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	na	99 U	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	na	99 U	na	na	na	na	na	na
Aniline	µg/kg dw	na	20 UJ	na	na	na	na	na	na
Benzoic acid	µg/kg dw	na	50 J	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	na	20 U	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	na	20 U	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	na	20 U	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	na	20 U	na	na	na	na	na	na
Carbazole	µg/kg dw	na	14 J	na	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	na	6.1 UJ	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	na	6.1 U	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	na	99 UJ	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	na	20 U	na	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS501-010	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS504-010	LDW-SS505-010	LDW-SS506-010	LDW-SS507-010	LDW-SS602-010 ^a
Isophorone	µg/kg dw	na	20 U	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	na	30 U	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	na	30 U	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	na	6.1 UJ	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	na	20 U	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	na	30 U	na	na	na	na	na	na
Phenol	µg/kg dw	na	17 J	na	na	na	na	na	na
PCBs									
Aroclor-1016	µg/kg dw	na	20 U	3.8 U	na	na	na	na	na
Aroclor-1221	µg/kg dw	na	20 U	3.8 U	na	na	na	na	na
Aroclor-1232	µg/kg dw	na	20 U	3.8 U	na	na	na	na	na
Aroclor-1242	µg/kg dw	na	20 U	3.8 U	na	na	na	na	na
Aroclor-1248	µg/kg dw	na	20 U	3.8 U	na	na	na	na	na
Aroclor-1254	µg/kg dw	na	60	16	na	na	na	na	na
Aroclor-1260	µg/kg dw	na	26	10	na	na	na	na	na
Aroclor-1262	µg/kg dw	na	20 U	3.8 U	na	na	na	na	na
Aroclor-1268	µg/kg dw	na	20 UJ	3.8 UJ	na	na	na	na	na
Total PCBs	µg/kg dw	na	86	26	na	na	na	na	na
Dioxin/furan									
2,3,7,8-TCDD	ng/kg dw	0.398 J	0.122 U	0.279 U	0.150 U	0.535 J	0.608 J	0.453 J	na
1,2,3,7,8-PeCDD	ng/kg dw	1.55 J	0.491 U	0.518 J	0.277 U	2.16 J	2.14 J	1.44 J	na
1,2,3,4,7,8-HxCDD	ng/kg dw	2.68 J	0.704 J	0.630 J	0.479 J	3.89 J	4.17 J	2.51 J	na
1,2,3,6,7,8-HxCDD	ng/kg dw	10.1	2.14	2.31	2.27 J	15.1	14.8	10.9	na
1,2,3,7,8,9-HxCDD	ng/kg dw	7.63	1.80	1.82	1.57 J	11.1	10.8	7.39	na
1,2,3,4,6,7,8-HpCDD	ng/kg dw	248	42.5	42.0	50.9	392	358	315	na
OCDD	ng/kg dw	2,360	393	410	497	3,840	3,440	4,080	na
2,3,7,8-TCDF	ng/kg dw	1.27	0.900 U	1.11	0.437 J	2.28	2.06	1.55	na
1,2,3,7,8-PeCDF	ng/kg dw	0.717 J	0.383 J	0.447 J	0.205 J	1.17 J	1.16 J	0.944 J	na
2,3,4,7,8-PeCDF	ng/kg dw	1.59 J	0.667 J	0.977	0.467 J	2.59 J	2.62 J	1.96 J	na
1,2,3,4,7,8-HxCDF	ng/kg dw	5.02 J	1.34	2.47	2.43 J	8.71	10.4	8.00	na
1,2,3,6,7,8-HxCDF	ng/kg dw	1.73 J	0.736 J	1.08	0.561 J	2.89 J	3.06 J	2.20 J	na
1,2,3,7,8,9-HxCDF	ng/kg dw	0.167 J	0.0660 U	1.01 U	0.0670 U	0.230 J	0.200 J	0.197 J	na
2,3,4,6,7,8-HxCDF	ng/kg dw	1.43 J	0.690 J	0.964 J	0.378 J	2.34 J	2.43 J	1.63 J	na
1,2,3,4,6,7,8-HpCDF	ng/kg dw	40.5	19.4	15.2	14.0	73.6	78.2	58.4	na
1,2,3,4,7,8,9-HpCDF	ng/kg dw	2.79 J	0.752 J	1.06	1.33 J	5.29	5.98	4.56 J	na
OCDF	ng/kg dw	165	40.9	53.2	63.6	323	320	285	na
Total TCDD	ng/kg dw	6.25	4.40	7.17	1.68	8.43	7.58	5.93	na
Total PeCDD	ng/kg dw	12.4	5.38	7.90	2.23	15.2	14.8	11.2	na
Total HxCDD	ng/kg dw	99.4	21.4	20.2	18.9	141	125	104	na
Total HpCDD	ng/kg dw	738	110	85.6	136	1,110	945	1,080	na
Total TCDF	ng/kg dw	22.3	10.2	21.6	5.63	33.7	38.4	23.9	na
Total PeCDF	ng/kg dw	26.7	10.8	26.5	7.09	44.7	47.6	32.5	na
Total HxCDF	ng/kg dw	62.6	20.1	29.9	22.3	111	117	95.6	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS501-010	LDW-SS502-010-comp	LDW-SS503-043-comp	LDW-SS504-010	LDW-SS505-010	LDW-SS506-010	LDW-SS507-010	LDW-SS602-010 ^a
Total HpCDF	ng/kg dw	145	48.1	49.5	56.4	279	282	242	na
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	9.12 J	2.06 J	2.77 J	2.01 J	14.1 J	13.9 J	11.0 J	na
Grain size									
Fractional % phi >-1 (>2000 microns)	% dw	34.3	7.9	4.1	1	1.0	0.1 U	0.4	0.1
Fractional % phi -1-0 (1000-2000 microns)	% dw	1.9	5.1	3.5	2.0	1.2	0.3	0.6	2.5
Fractional % phi 0-1 (500-1000 microns)	% dw	3.4	18.3	18.1	10.9	2.2	0.6	1.1	2.2
Fractional % phi 1-2 (250-500 microns)	% dw	12.0	39.7	41.2	27.3	6.7	2.0	1.5	2.8
Fractional % phi 2-3 (125-250 microns)	% dw	6.4	19.3	16.4	16.1	11.9	10.9	3.2	3.8
Fractional % phi 3-4 (62.5-125 microns)	% dw	3.0	3.6	4.5	3.6	9.6	13.9	6.1	6.4
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	3.8	1.3	2.5	4.3	9.6	10.2	10.5	7.3
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	6.3	0.7	2.6	6.3	11.3	11.4	12.8	13.4
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	7.4	0.5	1.9	7.4	12.8	13.3	16.3	16.3
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	3.6	0.7	1.4	6.5	10.6	11.4	14.8	14.5
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	7.8	0.9	1.2	4.2	7.0	7.9	10.4	10
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	4.1	0.8	0.9	3.8	6.1	6.7	8.4	7.8
Fractional % phi 10+ (<0.98 micron)	% dw	5.9	1.1	1.7	6.4	10.0	11.4	13.8	12.6
Total gravel	% dw	34.3	7.9	4.1	1	1.0	0.1 U	0.4	0.1
Total sand	% dw	26.7	86.0	83.7	59.8	31.6	27.7	12.5	17.7
Total silt	% dw	21.1	3.2	8.4	24.5	44.3	46.3	54.4	51.5
Total clay	% dw	17.8	2.8	3.8	14.3	23.1	26.0	32.6	31
Total fines (percent silt+clay)	% dw	38.9	6.0	12.2	38.9	67.4	72.3	87.0	82
Conventionals									
Total organic carbon (TOC)	% dw	2.17	2.00	1.29	1.38	1.80	2.12	1.79	1.97
Total solids	% ww	51.10	73.10 J	76.20 J	68.30	55.30	56.40	47.20	47.00

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS508-010	LDW-SS509-010	LDW-SS510-010	LDW-SS511-010	LDW-SS512-010	LDW-SS513-010	LDW-SS514-010	LDW-SS515-010
Metals									
Antimony	mg/kg dw	na	na	na	na	na	na	na	na
Arsenic	mg/kg dw	11.3	18.1	na	na	na	na	na	na
Cadmium	mg/kg dw	na	na	na	na	na	na	na	na
Chromium	mg/kg dw	na	na	na	na	na	na	na	na
Cobalt	mg/kg dw	na	na	na	na	na	na	na	na
Copper	mg/kg dw	na	na	na	na	na	na	na	na
Lead	mg/kg dw	na	na	na	na	na	na	na	na
Mercury	mg/kg dw	na	na	na	na	na	na	na	na
Molybdenum	mg/kg dw	na	na	na	na	na	na	na	na
Nickel	mg/kg dw	na	na	na	na	na	na	na	na
Selenium	mg/kg dw	na	na	na	na	na	na	na	na
Silver	mg/kg dw	na	na	na	na	na	na	na	na
Thallium	mg/kg dw	na	na	na	na	na	na	na	na
Vanadium	mg/kg dw	na	na	na	na	na	na	na	na
Zinc	mg/kg dw	na	na	na	na	na	na	na	na
PAHs									
1-Methylnaphthalene	µg/kg dw	4.8 U	55	na	na	na	na	na	na
2-Chloronaphthalene	µg/kg dw	na	na	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	4.8 U	58	na	na	na	na	na	na
Acenaphthene	µg/kg dw	4.8 U	92	na	na	na	na	na	na
Acenaphthylene	µg/kg dw	4.8 U	290	na	na	na	na	na	na
Anthracene	µg/kg dw	4.8 U	740	na	na	na	na	na	na
Benzo(a)anthracene	µg/kg dw	4.8 U	1,800	na	na	na	na	na	na
Benzo(a)pyrene	µg/kg dw	4.8 U	2,100	na	na	na	na	na	na
Benzo(b)fluoranthene	µg/kg dw	4.8 U	1,600 J	na	na	na	na	na	na
Benzo(g,h,i)perylene	µg/kg dw	4.8 U	1,400	na	na	na	na	na	na
Benzo(k)fluoranthene	µg/kg dw	4.8 U	1,600 J	na	na	na	na	na	na
Total benzofluoranthenes	µg/kg dw	4.8 U	3,200 J	na	na	na	na	na	na
Chrysene	µg/kg dw	4.8 U	2,600	na	na	na	na	na	na
Dibenzo(a,h)anthracene	µg/kg dw	4.8 U	500	na	na	na	na	na	na
Dibenzofuran	µg/kg dw	4.8 U	75	na	na	na	na	na	na
Fluoranthene	µg/kg dw	4.8 U	4,100	na	na	na	na	na	na
Fluorene	µg/kg dw	4.8 U	200	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	µg/kg dw	4.8 U	1,200	na	na	na	na	na	na
Naphthalene	µg/kg dw	4.8 U	92	na	na	na	na	na	na
Phenanthrene	µg/kg dw	4.8 U	2,200	na	na	na	na	na	na
Pyrene	µg/kg dw	4.8 U	4,000	na	na	na	na	na	na
Total HPAHs	µg/kg dw	4.8 U	20,900 J	na	na	na	na	na	na
Total LPAHs	µg/kg dw	4.8 U	3,600	na	na	na	na	na	na
Total cPAHs	µg/kg dw	4.3 U	2,900 J	na	na	na	na	na	na
Total PAHs	µg/kg dw	4.8 U	24,500 J	na	na	na	na	na	na
Phthalates									

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS508-010	LDW-SS509-010	LDW-SS510-010	LDW-SS511-010	LDW-SS512-010	LDW-SS513-010	LDW-SS514-010	LDW-SS515-010
Bis(2-ethylhexyl)phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Other SVOCs									
1,2,4-Trichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	na	na	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	na	na	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	na	na	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	na	na	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	na	na	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	na	na	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	na	na	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	na	na	na	na	na	na	na	na
Aniline	µg/kg dw	na	na	na	na	na	na	na	na
Benzoic acid	µg/kg dw	na	na	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	na	na	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	na	na	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	na	na	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	na	na	na	na	na	na	na	na
Carbazole	µg/kg dw	na	na	na	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	na	na	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	na	na	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	na	na	na	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS508-010	LDW-SS509-010	LDW-SS510-010	LDW-SS511-010	LDW-SS512-010	LDW-SS513-010	LDW-SS514-010	LDW-SS515-010
Isophorone	µg/kg dw	na	na	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	na	na	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	na	na	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	na	na	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	na	na	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
Phenol	µg/kg dw	na	na	na	na	na	na	na	na
PCBs									
Aroclor-1016	µg/kg dw	0.8 U	48 U	na	na	na	na	na	na
Aroclor-1221	µg/kg dw	0.8 U	48 U	na	na	na	na	na	na
Aroclor-1232	µg/kg dw	0.8 U	48 U	na	na	na	na	na	na
Aroclor-1242	µg/kg dw	0.8 U	48 U	na	na	na	na	na	na
Aroclor-1248	µg/kg dw	0.8 U	190 U	na	na	na	na	na	na
Aroclor-1254	µg/kg dw	0.8 U	410	na	na	na	na	na	na
Aroclor-1260	µg/kg dw	0.8 U	150	na	na	na	na	na	na
Aroclor-1262	µg/kg dw	0.8 U	48 U	na	na	na	na	na	na
Aroclor-1268	µg/kg dw	0.8 UJ	48 UJ	na	na	na	na	na	na
Total PCBs	µg/kg dw	0.8 UJ	560	na	na	na	na	na	na
Dioxin/furan									
2,3,7,8-TCDD	ng/kg dw	0.0580 U	5.59	0.324 J	0.386 J	0.217 U	0.588 U	0.381 J	0.696 J
1,2,3,7,8-PeCDD	ng/kg dw	4.92 U	15.3	1.04 J	1.09 J	0.743 J	2.11 J	1.43 J	2.27 J
1,2,3,4,7,8-HxCDD	ng/kg dw	0.0610 U	13.7	1.61 J	1.92 J	1.25 J	4.61 J	2.41 J	3.70 J
1,2,3,6,7,8-HxCDD	ng/kg dw	0.0810 J	47.7	5.92	7.40	5.20 J	22.5	12.9	13.0
1,2,3,7,8,9-HxCDD	ng/kg dw	0.198 J	41.8	4.64 J	5.81	4.12 J	13.7 J	7.65	10.0
1,2,3,4,6,7,8-HpCDD	ng/kg dw	1.48 J	600	141	192	145	690	333	289
OCDD	ng/kg dw	11.3	5,090	1,380	1,960	1,590	6,650	3,450	2,800
2,3,7,8-TCDF	ng/kg dw	1.01 U	55.4	0.801 J	1.00 J	0.692 J	2.48	1.62	1.72
1,2,3,7,8-PeCDF	ng/kg dw	4.36 U	28.8	0.472 J	0.550 J	0.424 J	1.80 U	1.14 J	1.06 J
2,3,4,7,8-PeCDF	ng/kg dw	4.45 U	54.8	0.994 J	1.30 J	0.970 J	3.56 J	3.48 J	2.22 J
1,2,3,4,7,8-HxCDF	ng/kg dw	4.74 U	39.4	3.56 J	4.79 J	4.46 J	19.6	24.2	7.53
1,2,3,6,7,8-HxCDF	ng/kg dw	4.50 U	30.2	1.17 J	1.48 J	1.19 J	7.00 J	4.58	2.69 J
1,2,3,7,8,9-HxCDF	ng/kg dw	4.97 U	2.35 J	0.106 J	0.108 U	0.0960 J	0.500 U	0.335 J	0.200 J
2,3,4,6,7,8-HxCDF	ng/kg dw	5.02 U	32.9	0.901 J	1.24 J	0.782 J	3.24 J	2.53 J	2.19 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	0.203 J	219	29.6	35.9	30.8	150	93.2	56.2
1,2,3,4,7,8,9-HpCDF	ng/kg dw	4.74 U	11.5	2.27 J	2.63 J	2.43 J	12.8 J	10.7	4.20 J
OCDF	ng/kg dw	0.673 J	385	149	168	136	760	312	242
Total TCDD	ng/kg dw	0.207	205	4.03	4.90	2.77	7.48	6.75	8.08
Total PeCDD	ng/kg dw	0.0990	232	7.47	7.80	5.91	13.0 J	11.3	15.8
Total HxCDD	ng/kg dw	1.44	511	56.8	73.1	53.0	204	111	107
Total HpCDD	ng/kg dw	3.59	1,910	410	594	469	2,030	973	814
Total TCDF	ng/kg dw	0.296	1,090	13.7	18.4	12.6	42.1	26.9	32.4
Total PeCDF	ng/kg dw	0.0700	716	17.7	21.6	16.1	62.9	46.6	46.0
Total HxCDF	ng/kg dw	0.217	566	46.0	59.7	45.7	214	164	95.7

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS508-010	LDW-SS509-010	LDW-SS510-010	LDW-SS511-010	LDW-SS512-010	LDW-SS513-010	LDW-SS514-010	LDW-SS515-010
Total HpCDF	ng/kg dw	0.527	594	122	133	119	662	360	205
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	4.31 J	74.5 J	5.73 J	7.20 J	5.23 J	21.6 J	14.0 J	12.2 J
Grain size									
Fractional % phi >-1 (>2000 microns)	% dw	1.1	7.3	0.1	0.1	3.8	1.1	0.2	23.6
Fractional % phi -1-0 (1000-2000 microns)	% dw	7.2	3.6	0.7	0.1	2.6	1.0	1.1	2.7
Fractional % phi 0-1 (500-1000 microns)	% dw	2.1	8.5	1.1	0.2	12.9	2.2	5.9	2.5
Fractional % phi 1-2 (250-500 microns)	% dw	2.0	19.3	1.7	0.3	27.6	3.8	10.7	7.1
Fractional % phi 2-3 (125-250 microns)	% dw	2.1	12.4	2.4	0.3	12.2	2.5	15.4	10.5
Fractional % phi 3-4 (62.5-125 microns)	% dw	1.3	10.6	8.0	0.9	4.5	2.3	11.1	5.8
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	3.5	8.6	14.0	6.4	4.5	6.2	7.1	10.3
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	16.6	6.9	13.7	16.9	5.4	14.6	11.4	7.8
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	21.6	5.5	15.9	19.9	7.3	18.7	11.5	9.4
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	13.9	5.6	14.6	17.4	5.9	15.4	10.9	6.1
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	9.7	3.7	9.0	12.7	4.3	10.7	4.7	4.7
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	8.8	3.0	7.3	8.9	3.4	7.7	4.1	3.2
Fractional % phi 10+ (<0.98 micron)	% dw	10.3	5.0	11.5	16.2	5.7	13.9	5.9	6.4
Total gravel	% dw	1.1	7.3	0.1	0.1	3.8	1.1	0.2	23.6
Total sand	% dw	14.7	54.4	13.9	1.7	59.8	11.8	44.2	28.6
Total silt	% dw	55.6	26.6	58.2	60.6	23.1	54.9	40.9	33.6
Total clay	% dw	28.8	11.7	27.8	37.7	13.4	32.3	14.7	14.3
Total fines (percent silt+clay)	% dw	84.4	38.3	86.0	98.3	36.5	87.2	55.6	47.9
Conventionals									
Total organic carbon (TOC)	% dw	6.30	7.08	1.99	2.53	1.74	2.13	1.63	2.86
Total solids	% ww	41.73	40.30	48.60	43.70	64.50	47.90	53.40	53.80

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS516-010	LDW-SS517-010	LDW-SS518-010	LDW-SS519-010	LDW-SS520-010	LDW-SS521-010	LDW-SS522-010
Metals								
Antimony	mg/kg dw	na	na	na	na	na	na	na
Arsenic	mg/kg dw	na	na	na	na	na	na	na
Cadmium	mg/kg dw	na	na	na	na	na	na	na
Chromium	mg/kg dw	na	na	na	na	na	na	na
Cobalt	mg/kg dw	na	na	na	na	na	na	na
Copper	mg/kg dw	na	na	na	na	na	na	na
Lead	mg/kg dw	na	na	na	na	na	na	na
Mercury	mg/kg dw	na	na	na	na	na	na	na
Molybdenum	mg/kg dw	na	na	na	na	na	na	na
Nickel	mg/kg dw	na	na	na	na	na	na	na
Selenium	mg/kg dw	na	na	na	na	na	na	na
Silver	mg/kg dw	na	na	na	na	na	na	na
Thallium	mg/kg dw	na	na	na	na	na	na	na
Vanadium	mg/kg dw	na	na	na	na	na	na	na
Zinc	mg/kg dw	na	na	na	na	na	na	na
PAHs								
1-Methylnaphthalene	µg/kg dw	na	na	na	na	na	na	na
2-Chloronaphthalene	µg/kg dw	na	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	na	na	na	na	na	na	na
Acenaphthene	µg/kg dw	na	na	na	na	na	na	na
Acenaphthylene	µg/kg dw	na	na	na	na	na	na	na
Anthracene	µg/kg dw	na	na	na	na	na	na	na
Benzo(a)anthracene	µg/kg dw	na	na	na	na	na	na	na
Benzo(a)pyrene	µg/kg dw	na	na	na	na	na	na	na
Benzo(b)fluoranthene	µg/kg dw	na	na	na	na	na	na	na
Benzo(g,h,i)perylene	µg/kg dw	na	na	na	na	na	na	na
Benzo(k)fluoranthene	µg/kg dw	na	na	na	na	na	na	na
Total benzofluoranthenes	µg/kg dw	na	na	na	na	na	na	na
Chrysene	µg/kg dw	na	na	na	na	na	na	na
Dibenzo(a,h)anthracene	µg/kg dw	na	na	na	na	na	na	na
Dibenzofuran	µg/kg dw	na	na	na	na	na	na	na
Fluoranthene	µg/kg dw	na	na	na	na	na	na	na
Fluorene	µg/kg dw	na	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	µg/kg dw	na	na	na	na	na	na	na
Naphthalene	µg/kg dw	na	na	na	na	na	na	na
Phenanthrene	µg/kg dw	na	na	na	na	na	na	na
Pyrene	µg/kg dw	na	na	na	na	na	na	na
Total HPAHs	µg/kg dw	na	na	na	na	na	na	na
Total LPAHs	µg/kg dw	na	na	na	na	na	na	na
Total cPAHs	µg/kg dw	na	na	na	na	na	na	na
Total PAHs	µg/kg dw	na	na	na	na	na	na	na
Phthalates								

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS516-010	LDW-SS517-010	LDW-SS518-010	LDW-SS519-010	LDW-SS520-010	LDW-SS521-010	LDW-SS522-010
Bis(2-ethylhexyl)phthalate	µg/kg dw	na	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	na	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	na	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	na	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	na	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	na	na	na	na	na	na	na
Other SVOCs								
1,2,4-Trichlorobenzene	µg/kg dw	na	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	na	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	na	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	na	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	na	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	na	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	na	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	na	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	na	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	na	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	na	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	na	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	na	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	na	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	na	na	na	na	na	na	na
Aniline	µg/kg dw	na	na	na	na	na	na	na
Benzoic acid	µg/kg dw	na	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	na	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	na	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	na	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	na	na	na	na	na	na	na
Carbazole	µg/kg dw	na	na	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	na	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	na	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	na	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	na	na	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS516-010	LDW-SS517-010	LDW-SS518-010	LDW-SS519-010	LDW-SS520-010	LDW-SS521-010	LDW-SS522-010
Isophorone	µg/kg dw	na	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	na	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	na	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	na	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	na	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	na	na	na	na	na	na	na
Phenol	µg/kg dw	na	na	na	na	na	na	na
PCBs								
Aroclor-1016	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1221	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1232	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1242	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1248	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1254	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1260	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1262	µg/kg dw	na	na	na	na	na	na	na
Aroclor-1268	µg/kg dw	na	na	na	na	na	na	na
Total PCBs	µg/kg dw	na	na	na	na	na	na	na
Dioxin/furan								
2,3,7,8-TCDD	ng/kg dw	0.395 J	0.488 J	0.226 U	0.354 J	0.378	0.304 J	0.660 J
1,2,3,7,8-PeCDD	ng/kg dw	1.09 J	1.53 J	0.560 J	0.675 J	1.42	0.713 J	2.81 J
1,2,3,4,7,8-HxCDD	ng/kg dw	1.87 J	2.63 J	0.903 J	1.19 J	2.45	1.17 J	5.08 J
1,2,3,6,7,8-HxCDD	ng/kg dw	8.76	11.4	2.52 J	4.02 J	8.06	4.24 J	16.4
1,2,3,7,8,9-HxCDD	ng/kg dw	5.43	7.85	2.56 J	3.33 J	7.46	3.19 J	14.1
1,2,3,4,6,7,8-HpCDD	ng/kg dw	223	304	55.1	95.8	196	97.1	435
OCDD	ng/kg dw	2,380	2,970	525	892	1,910	984	4,150
2,3,7,8-TCDF	ng/kg dw	1.13	1.57	0.351 J	0.596 J	1.18	0.653 J	1.52
1,2,3,7,8-PeCDF	ng/kg dw	1.00 J	0.754 J	0.262 J	0.314 J	0.595 J	0.327 J	1.01 J
2,3,4,7,8-PeCDF	ng/kg dw	3.29 J	2.02 J	0.423 J	0.696 J	1.59	0.761 J	2.68 J
1,2,3,4,7,8-HxCDF	ng/kg dw	16.5	7.62	1.26 J	2.61 J	4.54	2.52 J	10.4
1,2,3,6,7,8-HxCDF	ng/kg dw	3.06 J	2.09 J	0.494 J	0.845 J	2.00	0.872 J	2.86 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.231 J	0.158 J	0.0670 J	0.121 J	0.146 J	0.0760 J	0.218 J
2,3,4,6,7,8-HxCDF	ng/kg dw	1.68 J	1.55 J	0.387 J	0.657 J	1.88 J	0.708 J	1.99 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	56.9	62.9	9.79	17.6	36.2	19.3	62.3
1,2,3,4,7,8,9-HpCDF	ng/kg dw	4.82	4.96	0.793 J	1.52 J	2.54	1.56 J	4.55 J
OCDF	ng/kg dw	272	346	36.4	74.8	142	90.4	290
Total TCDD	ng/kg dw	4.61	5.67	2.13	4.42	4.78	3.78	7.33
Total PeCDD	ng/kg dw	8.31	13.0	3.94	6.57	9.71	4.67	14.7
Total HxCDD	ng/kg dw	69.7	108	24.3	38.5	74.9	36.3	152
Total HpCDD	ng/kg dw	562	865	139	261	577	270	1,210
Total TCDF	ng/kg dw	22.0	27.4	6.11	10.6	22.8	11.5	25.8
Total PeCDF	ng/kg dw	41.3	30.3	6.68	12.1	28.1	12.7	39.4
Total HxCDF	ng/kg dw	117	90.7	14.8	30.3	57.8	32.3	103

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS516-010	LDW-SS517-010	LDW-SS518-010	LDW-SS519-010	LDW-SS520-010	LDW-SS521-010	LDW-SS522-010
Total HpCDF	ng/kg dw	239	267	30.3	65.8	128	74.9	233
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	10.0 J	10.9 J	2.49 J	4.02 J	8.03 J	4.10 J	15.9 J
Grain size								
Fractional % phi >-1 (>2000 microns)	% dw	1.8	9.0	0.1	0.1 U	1.3	0.1 U	0.1 U
Fractional % phi -1-0 (1000-2000 microns)	% dw	2.9	6.3	1.4	2.0	2.0	0.1 U	0.2
Fractional % phi 0-1 (500-1000 microns)	% dw	6.5	4.9	0.6	1.7	8.3	1.1	0.4
Fractional % phi 1-2 (250-500 microns)	% dw	7.2	3.9	0.4	1.6	21.3	1.6	0.7
Fractional % phi 2-3 (125-250 microns)	% dw	2.5	3.1	2.0	2.1	13.5	4.0	0.7
Fractional % phi 3-4 (62.5-125 microns)	% dw	6.0	6.0	13.6	8.6	6.0	17.3	1.3
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	8.7	9.7	10.8	10.8	4.0	14.2	6.6
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	15.2	13.2	17.7	17.6	8.6	13.7	18.5
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	16.1	13.5	15.1	16.5	10.0	13.9	27.9
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	11.8	10.1	13.6	13.3	9.1	12.6	18.3
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	7.4	7.1	9.7	9.3	5.6	7.7	10.3
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	4.8	4.6	5.3	5.6	3.3	4.7	5.3
Fractional % phi 10+ (<0.98 micron)	% dw	9.0	8.5	9.7	11.0	7.1	9.1	9.6
Total gravel	% dw	1.8	9.0	0.1	0.1 U	1.3	0.1 U	0.1 U
Total sand	% dw	25.1	24.2	18.0	16.0	51.1	24.0	3.3
Total silt	% dw	51.8	46.5	57.2	58.2	31.7	54.4	71.3
Total clay	% dw	21.2	20.2	24.7	25.9	16.0	21.5	25.2
Total fines (percent silt+clay)	% dw	73.0	66.7	81.9	84.1	47.7	75.9	96.5
Conventionals								
Total organic carbon (TOC)	% dw	1.96	2.40	2.06	2.17	2.10	2.18	2.86
Total solids	% ww	53.20	52.80	52.50	47.10	59.70 J	50.70	43.20

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatle organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS524-010	LDW-SS525-010	LDW-SS526-010
Metals						
Antimony	mg/kg dw	na	na	na	na	na
Arsenic	mg/kg dw	5.1	na	na	3.8	7.5
Cadmium	mg/kg dw	na	na	na	na	na
Chromium	mg/kg dw	na	na	na	na	na
Cobalt	mg/kg dw	na	na	na	na	na
Copper	mg/kg dw	na	na	na	na	na
Lead	mg/kg dw	na	na	na	na	na
Mercury	mg/kg dw	na	na	na	na	na
Molybdenum	mg/kg dw	na	na	na	na	na
Nickel	mg/kg dw	na	na	na	na	na
Selenium	mg/kg dw	na	na	na	na	na
Silver	mg/kg dw	na	na	na	na	na
Thallium	mg/kg dw	na	na	na	na	na
Vanadium	mg/kg dw	na	na	na	na	na
Zinc	mg/kg dw	na	na	na	na	na
PAHs						
1-Methylnaphthalene	µg/kg dw	4.8 U	4.8 U	na	4.8 U	9.0
2-Chloronaphthalene	µg/kg dw	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	4.8 U	4.8 U	na	4.8 U	11
Acenaphthene	µg/kg dw	4.8	6.3	na	4.8	26
Acenaphthylene	µg/kg dw	9.5	10	na	4.8 U	13
Anthracene	µg/kg dw	22	32	na	7.7	100
Benzo(a)anthracene	µg/kg dw	65	94	na	27	310
Benzo(a)pyrene	µg/kg dw	72	110	na	24	320
Benzo(b)fluoranthene	µg/kg dw	85 J	110 J	na	29 J	290 J
Benzo(g,h,i)perylene	µg/kg dw	66	81	na	15	190
Benzo(k)fluoranthene	µg/kg dw	85 J	110 J	na	29 J	290 J
Total benzofluoranthenes	µg/kg dw	170 J	220 J	na	58 J	580 J
Chrysene	µg/kg dw	150	180	na	51	500
Dibenzo(a,h)anthracene	µg/kg dw	17	26	na	5.8	70
Dibenzofuran	µg/kg dw	4.8 U	4.8 U	na	4.8	15
Fluoranthene	µg/kg dw	150	230 J	na	88	900
Fluorene	µg/kg dw	6.2	6.3	na	5.3	27
Indeno(1,2,3-cd)pyrene	µg/kg dw	49	68	na	14	170
Naphthalene	µg/kg dw	5.7	4.8 U	na	4.8 U	5.7
Phenanthrene	µg/kg dw	42	81	na	43	350
Pyrene	µg/kg dw	90	150	na	51	570
Total HPAHs	µg/kg dw	830 J	1,160 J	na	334 J	3,610 J
Total LPAHs	µg/kg dw	90	136	na	61	520
Total cPAHs	µg/kg dw	110 J	160 J	na	37 J	460 J
Total PAHs	µg/kg dw	920 J	1,290 J	na	395 J	4,130 J
Phthalates						

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS524-010	LDW-SS525-010	LDW-SS526-010
Bis(2-ethylhexyl)phthalate	µg/kg dw	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	na	na	na	na	na
Diethyl phthalate	µg/kg dw	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	na	na	na	na	na
Other SVOCs						
1,2,4-Trichlorobenzene	µg/kg dw	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	na	na	na	na	na
2-Chlorophenol	µg/kg dw	na	na	na	na	na
2-Methylphenol	µg/kg dw	na	na	na	na	na
2-Nitroaniline	µg/kg dw	na	na	na	na	na
2-Nitrophenol	µg/kg dw	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	na	na	na	na	na
3-Nitroaniline	µg/kg dw	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	na	na	na	na	na
4-Chloroaniline	µg/kg dw	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	na	na	na	na	na
4-Methylphenol	µg/kg dw	na	na	na	na	na
4-Nitroaniline	µg/kg dw	na	na	na	na	na
4-Nitrophenol	µg/kg dw	na	na	na	na	na
Aniline	µg/kg dw	na	na	na	na	na
Benzoic acid	µg/kg dw	na	na	na	na	na
Benzyl alcohol	µg/kg dw	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	na	na	na	na	na
Carbazole	µg/kg dw	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	na	na	na	na	na
Hexachloroethane	µg/kg dw	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS524-010	LDW-SS525-010	LDW-SS526-010
Isophorone	µg/kg dw	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	na	na	na	na	na
Nitrobenzene	µg/kg dw	na	na	na	na	na
Pentachlorophenol	µg/kg dw	na	na	na	na	na
Phenol	µg/kg dw	na	na	na	na	na
PCBs						
Aroclor-1016	µg/kg dw	20 U	na	na	3.9 U	20 U
Aroclor-1221	µg/kg dw	20 U	na	na	3.9 U	20 U
Aroclor-1232	µg/kg dw	20 U	na	na	3.9 U	20 U
Aroclor-1242	µg/kg dw	20 U	na	na	3.9 U	20 U
Aroclor-1248	µg/kg dw	20 U	na	na	4.8	99 U
Aroclor-1254	µg/kg dw	34	na	na	8.3	260
Aroclor-1260	µg/kg dw	32	na	na	6.5	100
Aroclor-1262	µg/kg dw	20 U	na	na	3.9 U	20 U
Aroclor-1268	µg/kg dw	20 UJ	na	na	3.9 UJ	20 UJ
Total PCBs	µg/kg dw	66	na	na	19.6	360
Dioxin/furan						
2,3,7,8-TCDD	ng/kg dw	0.438 J	na	0.334 J	0.113 U	0.524 J
1,2,3,7,8-PeCDD	ng/kg dw	1.28 J	na	0.815 J	0.281 J	3.31 J
1,2,3,4,7,8-HxCDD	ng/kg dw	2.37 J	na	1.44 J	0.473 J	6.78
1,2,3,6,7,8-HxCDD	ng/kg dw	8.79	na	5.92 J	1.70 J	19.1
1,2,3,7,8,9-HxCDD	ng/kg dw	7.65	na	4.46 J	1.57 J	18.8
1,2,3,4,6,7,8-HpCDD	ng/kg dw	311	na	164	47.9	502
OCDD	ng/kg dw	3,960	na	1,630	487	4,480
2,3,7,8-TCDF	ng/kg dw	0.739 J	na	0.622 J	0.144 U	0.983 J
1,2,3,7,8-PeCDF	ng/kg dw	0.385 J	na	0.387 J	0.0940 J	0.538 J
2,3,4,7,8-PeCDF	ng/kg dw	0.837 J	na	0.914 J	0.236 J	1.44 J
1,2,3,4,7,8-HxCDF	ng/kg dw	2.92 J	na	2.93 J	1.01 J	4.98
1,2,3,6,7,8-HxCDF	ng/kg dw	1.01 J	na	1.03 J	0.299 J	2.24 J
1,2,3,7,8,9-HxCDF	ng/kg dw	0.104 J	na	0.0710 J	0.148 J	0.129 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.867 J	na	0.820 J	0.247 J	1.79 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	27.8	na	23.4	8.46	74.7
1,2,3,4,7,8,9-HpCDF	ng/kg dw	1.81 J	na	1.64 J	0.505 J	4.72 J
OCDF	ng/kg dw	125	na	85.0	48.6	205
Total TCDD	ng/kg dw	2.60	na	4.31	0.247	5.67
Total PeCDD	ng/kg dw	6.11	na	5.69 J	1.52	14.9
Total HxCDD	ng/kg dw	77.8	na	52.1	16.3	139
Total HpCDD	ng/kg dw	732	na	397	122	1,030
Total TCDF	ng/kg dw	8.75	na	13.4	1.99	22.7
Total PeCDF	ng/kg dw	14.4	na	14.6	3.40	29.1
Total HxCDF	ng/kg dw	41.8	na	33.5	9.53	72.9

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS523-010	LDW-SS601-010 ^a	LDW-SS524-010	LDW-SS525-010	LDW-SS526-010
Total HpCDF	ng/kg dw	91.0	na	79.9	27.4	186
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	9.06 J	na	5.57 J	1.69 J	17.0 J
Grain size						
Fractional % phi >-1 (>2000 microns)	% dw	6.8	8.7	0.1 U	0.9	2.9
Fractional % phi -1-0 (1000-2000 microns)	% dw	5.1	5.6	0.2	0.5	3.8
Fractional % phi 0-1 (500-1000 microns)	% dw	17.3	17.3	0.3	19.3	24.6
Fractional % phi 1-2 (250-500 microns)	% dw	29.4	28.9	0.4	57.6	29.7
Fractional % phi 2-3 (125-250 microns)	% dw	17.5	17.2	1.4	8.6	15.9
Fractional % phi 3-4 (62.5-125 microns)	% dw	10.2	9.9	7.0	5.3	6.1
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	5.3	3.9	13.8	2.3	3.4
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	1.8	1.8	20.2	1.3	3.0
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	1.7	1.7	18.5	1.1	3.1
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	1.4	1.5	14.0	0.9	2.8
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	1.3	1.2	8.6	0.6	1.9
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	1.1	1.0	5.2	0.4	1.0
Fractional % phi 10+ (<0.98 micron)	% dw	1.3	1.1	10.1	1.2	1.6
Total gravel	% dw	6.8	8.7	0.1 U	0.9	2.9
Total sand	% dw	79.5	78.9	9.3	91.3	80.1
Total silt	% dw	10.2	8.9	66.5	5.6	12.3
Total clay	% dw	3.7	3.3	23.9	2.2	4.5
Total fines (percent silt+clay)	% dw	13.9	12.2	90.4	7.8	16.8
Conventionals						
Total organic carbon (TOC)	% dw	0.982	0.906	2.40	0.673	1.79
Total solids	% ww	76.70	77.80	47.40	73.67	68.80

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS527-010	LDW-SS603-010 ^a	LDW-SS528-010	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS532-010	LDW-SS533-043-comp
Metals									
Antimony	mg/kg dw	0.4 UJ	0.4 UJ	na	na	na	na	na	na
Arsenic	mg/kg dw	18.5	16.7	na	93.8	19.1	6.4	na	4.3
Cadmium	mg/kg dw	0.4 U	0.4 U	na	na	na	na	na	na
Chromium	mg/kg dw	20	25.8	na	na	na	na	na	na
Cobalt	mg/kg dw	6.7	8.6	na	na	na	na	na	na
Copper	mg/kg dw	31.4	39.7	na	na	na	na	na	na
Lead	mg/kg dw	10	15	na	na	na	na	na	na
Mercury	mg/kg dw	0.09 J	0.10 J	na	na	na	na	na	na
Molybdenum	mg/kg dw	1 U	0.9 U	na	na	na	na	na	na
Nickel	mg/kg dw	16 J	21 J	na	na	na	na	na	na
Selenium	mg/kg dw	0.9 U	1 U	na	na	na	na	na	na
Silver	mg/kg dw	0.6 U	0.6 U	na	na	na	na	na	na
Thallium	mg/kg dw	0.4 U	0.4 U	na	na	na	na	na	na
Vanadium	mg/kg dw	46.9	60.7	na	na	na	na	na	na
Zinc	mg/kg dw	62	80	na	na	na	na	na	na
PAHs									
1-Methylnaphthalene	µg/kg dw	na	na	na	26	560	4.9 U	na	4.7 U
2-Chloronaphthalene	µg/kg dw	20 U	20 U	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	20 U	20 U	na	29	660	4.9 U	na	5.1
Acenaphthene	µg/kg dw	11 J	11 J	na	330	970	4.9 U	na	7.5
Acenaphthylene	µg/kg dw	20 U	20 U	na	15	150	22	na	4.7 U
Anthracene	µg/kg dw	30	31	na	2,000	1,800	30	na	12
Benzo(a)anthracene	µg/kg dw	94	90	na	7,500	3,100	48	na	36
Benzo(a)pyrene	µg/kg dw	86	94	na	4,900	3,200	51	na	42
Benzo(b)fluoranthene	µg/kg dw	87 J	94 J	na	3,900 J	2,200 J	48 J	na	36 J
Benzo(g,h,i)perylene	µg/kg dw	54	46	na	2,200	2,300	68	na	34
Benzo(k)fluoranthene	µg/kg dw	87 J	94 J	na	3,900 J	2,200 J	48 J	na	36 J
Total benzofluoranthenes	µg/kg dw	174 J	188 J	na	7,800 J	4,400 J	96 J	na	72 J
Chrysene	µg/kg dw	150	140	na	7,900	3,800	67	na	51
Dibenzo(a,h)anthracene	µg/kg dw	26	22	na	870	580	15	na	12
Dibenzofuran	µg/kg dw	20 U	11 J	na	120	460	4.9 U	na	4.7 U
Fluoranthene	µg/kg dw	190	230	na	16,000	8,100	100	na	88
Fluorene	µg/kg dw	11 J	11 J	na	300	820	4.9 U	na	4.7
Indeno(1,2,3-cd)pyrene	µg/kg dw	50	45	na	2,000	1,600	41	na	27
Naphthalene	µg/kg dw	20 U	20 U	na	62	1,000	4.9 U	na	4.7 U
Phenanthrene	µg/kg dw	67	94	na	2,600	7,100	30	na	32
Pyrene	µg/kg dw	170	170	na	12,000	7,400	67	na	79
Total HPAHs	µg/kg dw	990 J	1,030 J	na	61,000 J	34,500 J	550 J	na	441 J
Total LPAHs	µg/kg dw	119 J	147 J	na	5,300	11,800	82	na	56
Total cPAHs	µg/kg dw	130 J	140 J	na	7,100 J	4,400 J	76 J	na	61 J
Total PAHs	µg/kg dw	1,110 J	1,170 J	na	66,000 J	46,300 J	640 J	na	497 J
Phthalates									

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS527-010	LDW-SS603-010 ^a	LDW-SS528-010	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS532-010	LDW-SS533-043-comp
Bis(2-ethylhexyl)phthalate	µg/kg dw	320	230	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	22	22	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	15 U	15 U	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	15 U	180	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	20	37	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	20 U	20 U	na	na	na	na	na	na
Other SVOCs									
1,2,4-Trichlorobenzene	µg/kg dw	6.2 U	6.1 U	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	6.2 U	6.1 U	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	20 U	20 U	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	6.2 U	6.1 U	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	99 U	99 U	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	99 U	99 U	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	99 U	99 U	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	6.2 U	6.1 U	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	200 UJ	200 UJ	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	99 U	99 U	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	99 U	99 U	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	20 U	20 U	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	6.2 U	6.1 U	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	99 U	99 U	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	99 U	99 U	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	99 UJ	99 UJ	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	99 U	99 U	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	200 U	200 U	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	20 U	20 U	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	99 U	99 U	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	99 UJ	99 UJ	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	20 U	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	20 U	20 U	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	99 U	99 U	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	99 U	99 U	na	na	na	na	na	na
Aniline	µg/kg dw	20 UJ	20 UJ	na	na	na	na	na	na
Benzoic acid	µg/kg dw	48 J	62 J	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	20 U	20 U	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	20 U	20 U	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	20 U	20 U	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	20 U	na	na	na	na	na	na
Carbazole	µg/kg dw	20 U	11 J	na	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	6.2 UJ	6.1 UJ	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	6.2 U	6.1 U	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	99 UJ	99 UJ	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	20 U	20 U	na	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS527-010	LDW-SS603-010 ^a	LDW-SS528-010	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS532-010	LDW-SS533-043-comp
Isophorone	µg/kg dw	20 U	20 U	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	31 U	30 U	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	31 U	30 U	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	6.2 UJ	6.1 UJ	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	20 U	20 U	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	31 U	30 U	na	na	na	na	na	na
Phenol	µg/kg dw	21	20	na	na	na	na	na	na
PCBs									
Aroclor-1016	µg/kg dw	4.0 U	4.0 U	na	19 U	31 U	3.9 U	na	20 U
Aroclor-1221	µg/kg dw	4.0 U	4.0 U	na	19 U	31 U	3.9 U	na	20 U
Aroclor-1232	µg/kg dw	4.0 U	4.0 U	na	19 U	31 U	3.9 U	na	20 U
Aroclor-1242	µg/kg dw	4.0 U	4.0 U	na	19 U	31 U	3.9 U	na	20 U
Aroclor-1248	µg/kg dw	23	23	na	290 U	320	4.9 U	na	75
Aroclor-1254	µg/kg dw	37	35	na	860	390	11	na	140
Aroclor-1260	µg/kg dw	31	20	na	150 U	150	10	na	64
Aroclor-1262	µg/kg dw	4.0 U	4.0 U	na	19 U	31 U	3.9 U	na	20 U
Aroclor-1268	µg/kg dw	4.0 UJ	4.0 UJ	na	19 UJ	31 UJ	3.9 UJ	na	20 UJ
Total PCBs	µg/kg dw	91	78	na	860	860	21	na	280
Dioxin/furan									
2,3,7,8-TCDD	ng/kg dw	0.306 J	na	0.790 J	0.459	1.77	0.126 U	0.197 J	0.403
1,2,3,7,8-PeCDD	ng/kg dw	0.706 J	na	2.89 J	1.53	7.19	0.354 J	0.524 J	1.22
1,2,3,4,7,8-HxCDD	ng/kg dw	1.12 J	na	5.00 J	2.47	10.6	0.544 J	0.744 J	1.88
1,2,3,6,7,8-HxCDD	ng/kg dw	3.98 J	na	16.2	8.11	39.2	1.85	2.60 J	6.10
1,2,3,7,8,9-HxCDD	ng/kg dw	3.65 J	na	14.2	6.80	32.9	1.60	2.27 J	5.30
1,2,3,4,6,7,8-HpCDD	ng/kg dw	98.5	na	357	230	1,030	38.6	62.7	122
OCDD	ng/kg dw	970	na	3,330	2,370	9,590	365	737	980
2,3,7,8-TCDF	ng/kg dw	0.608 J	na	5.54	1.98	5.37	0.410 J	0.765 J	0.998 U
1,2,3,7,8-PeCDF	ng/kg dw	0.329 J	na	2.07 J	1.02	2.21 J	0.212 J	0.357 J	0.541 J
2,3,4,7,8-PeCDF	ng/kg dw	0.763 J	na	5.17	2.06	4.83	0.298 J	0.773 J	1.24
1,2,3,4,7,8-HxCDF	ng/kg dw	2.65 J	na	18.5	5.53	10.8	0.692 J	1.76 J	6.86
1,2,3,6,7,8-HxCDF	ng/kg dw	0.890 J	na	7.39	2.34	5.23	0.369 J	0.745 J	1.78
1,2,3,7,8,9-HxCDF	ng/kg dw	0.0770 J	na	0.340 J	0.146 J	0.365 J	0.981 U	0.0530 U	0.150 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.660 J	na	3.52 J	1.81	4.86 J	0.293 J	0.604 J	1.22
1,2,3,4,6,7,8-HpCDF	ng/kg dw	17.6	na	65.2	34.2	95.5	6.47	14.0	32.0
1,2,3,4,7,8,9-HpCDF	ng/kg dw	1.36 J	na	7.35	3.25	6.76	0.361 J	0.864 J	3.29
OCDF	ng/kg dw	66.1	na	205	151	303	19.0	43.6	86.2
Total TCDD	ng/kg dw	3.33	na	12.0	12.0	18.1	2.30	3.32	6.20
Total PeCDD	ng/kg dw	5.30 J	na	21.1	18.2	42.9	3.67	4.47 J	9.20
Total HxCDD	ng/kg dw	36.6	na	145	64.8	463	17.6	29.4	47.3
Total HpCDD	ng/kg dw	271	na	892	427	4,510	126	251	242
Total TCDF	ng/kg dw	11.4	na	85.6	34.4	84.5	4.67	16.3	18.1
Total PeCDF	ng/kg dw	11.9	na	90.6	32.2	125	6.97	16.0	28.4
Total HxCDF	ng/kg dw	28.3	na	139	55.5	184	12.3	21.5	60.0

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS527-010	LDW-SS603-010 ^a	LDW-SS528-010	LDW-SS529-041-comp	LDW-SS530-010	LDW-SS531-010-comp	LDW-SS532-010	LDW-SS533-043-comp
Total HpCDF	ng/kg dw	59.9	na	206	128	314	19.4	39.2	108
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	4.10 J	na	17.7 J	8.99 J	35.7 J	1.71 J	2.93 J	6.28 J
Grain size									
Fractional % phi >-1 (>2000 microns)	% dw	1.1	0.4	0.6	24.1	1.7	9.6	1.8	13.1
Fractional % phi -1-0 (1000-2000 microns)	% dw	0.3	2.7	0.8	6.2	3.3	5.7	2.1	4.5
Fractional % phi 0-1 (500-1000 microns)	% dw	0.9	2.1	1.1	15.8	9.2	15.9	2.9	9.9
Fractional % phi 1-2 (250-500 microns)	% dw	1.3	2.4	0.7	24.1	17.8	29.4	7.9	30.6
Fractional % phi 2-3 (125-250 microns)	% dw	2.3	4.6	1.0	11.5	12.4	12.9	12.9	18.1
Fractional % phi 3-4 (62.5-125 microns)	% dw	8.9	12.9	2.5	6.2	14.0	4.6	25.8	7.1
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	18.2	16.9	8.5	2.7	10.8	4.5	20.3	4.5
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	23.2	18.1	31.7	2.4	9.2	3.2	9.4	3.4
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	18.7	15.9	27.5	2.2	7.2	3.5	5.8	2.6
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	11.6	10.1	9.3	1.9	4.9	3.4	3.8	1.7
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	5.0	4.4	5.0	1.1	3.4	2.8	2.7	1.5
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	2.6	3.0	3.4	0.7	2.8	1.8	1.4	1.0
Fractional % phi 10+ (<0.98 micron)	% dw	6.1	6.3	7.9	1.3	3.3	2.7	3.2	2.0
Total gravel	% dw	1.1	0.4	0.6	24.1	1.7	9.6	1.8	13.1
Total sand	% dw	13.7	24.7	6.1	63.8	56.7	68.5	51.6	70.2
Total silt	% dw	71.7	61.0	77.0	9.2	32.1	14.6	39.3	12.2
Total clay	% dw	13.7	13.7	16.3	3.1	9.5	7.3	7.3	4.5
Total fines (percent silt+clay)	% dw	85.4	74.7	93.3	12.3	41.6	21.9	46.6	16.7
Conventionals									
Total organic carbon (TOC)	% dw	2.18	2.43	3.04	1.47	1.56	1.23	2.27	1.40
Total solids	% ww	47.13	47.40	40.80	75.60 J	81.20	73.30	51.30	74.40

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS534-010	LDW-SS535-010	LDW-SS536-010	LDW-SS537-010	LDW-SS538-010	LDW-SS539-010	LDW-SS540-010	LDW-SS541-010
Metals									
Antimony	mg/kg dw	na	na	na	na	na	na	na	na
Arsenic	mg/kg dw	na	na	na	na	na	na	na	na
Cadmium	mg/kg dw	na	na	na	na	na	na	na	na
Chromium	mg/kg dw	na	na	na	na	na	na	na	na
Cobalt	mg/kg dw	na	na	na	na	na	na	na	na
Copper	mg/kg dw	na	na	na	na	na	na	na	na
Lead	mg/kg dw	na	na	na	na	na	na	na	na
Mercury	mg/kg dw	na	na	na	na	na	na	na	na
Molybdenum	mg/kg dw	na	na	na	na	na	na	na	na
Nickel	mg/kg dw	na	na	na	na	na	na	na	na
Selenium	mg/kg dw	na	na	na	na	na	na	na	na
Silver	mg/kg dw	na	na	na	na	na	na	na	na
Thallium	mg/kg dw	na	na	na	na	na	na	na	na
Vanadium	mg/kg dw	na	na	na	na	na	na	na	na
Zinc	mg/kg dw	na	na	na	na	na	na	na	na
PAHs									
1-Methylnaphthalene	µg/kg dw	na	na	na	na	na	na	na	na
2-Chloronaphthalene	µg/kg dw	na	na	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	na	na	na	na	na	na	na	na
Acenaphthene	µg/kg dw	na	na	na	na	na	na	na	na
Acenaphthylene	µg/kg dw	na	na	na	na	na	na	na	na
Anthracene	µg/kg dw	na	na	na	na	na	na	na	na
Benzo(a)anthracene	µg/kg dw	na	na	na	na	na	na	na	na
Benzo(a)pyrene	µg/kg dw	na	na	na	na	na	na	na	na
Benzo(b)fluoranthene	µg/kg dw	na	na	na	na	na	na	na	na
Benzo(g,h,i)perylene	µg/kg dw	na	na	na	na	na	na	na	na
Benzo(k)fluoranthene	µg/kg dw	na	na	na	na	na	na	na	na
Total benzofluoranthenes	µg/kg dw	na	na	na	na	na	na	na	na
Chrysene	µg/kg dw	na	na	na	na	na	na	na	na
Dibenzo(a,h)anthracene	µg/kg dw	na	na	na	na	na	na	na	na
Dibenzofuran	µg/kg dw	na	na	na	na	na	na	na	na
Fluoranthene	µg/kg dw	na	na	na	na	na	na	na	na
Fluorene	µg/kg dw	na	na	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	µg/kg dw	na	na	na	na	na	na	na	na
Naphthalene	µg/kg dw	na	na	na	na	na	na	na	na
Phenanthrene	µg/kg dw	na	na	na	na	na	na	na	na
Pyrene	µg/kg dw	na	na	na	na	na	na	na	na
Total HPAHs	µg/kg dw	na	na	na	na	na	na	na	na
Total LPAHs	µg/kg dw	na	na	na	na	na	na	na	na
Total cPAHs	µg/kg dw	na	na	na	na	na	na	na	na
Total PAHs	µg/kg dw	na	na	na	na	na	na	na	na
Phthalates									

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS534-010	LDW-SS535-010	LDW-SS536-010	LDW-SS537-010	LDW-SS538-010	LDW-SS539-010	LDW-SS540-010	LDW-SS541-010
Bis(2-ethylhexyl)phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	na	na	na	na	na	na	na	na
Other SVOCs									
1,2,4-Trichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	na	na	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	na	na	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	na	na	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	na	na	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	na	na	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	na	na	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	na	na	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	na	na	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	na	na	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	na	na	na	na	na	na	na	na
Aniline	µg/kg dw	na	na	na	na	na	na	na	na
Benzoic acid	µg/kg dw	na	na	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	na	na	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	na	na	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	na	na	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	na	na	na	na	na	na	na	na
Carbazole	µg/kg dw	na	na	na	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	na	na	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	na	na	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	na	na	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	na	na	na	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS534-010	LDW-SS535-010	LDW-SS536-010	LDW-SS537-010	LDW-SS538-010	LDW-SS539-010	LDW-SS540-010	LDW-SS541-010
Isophorone	µg/kg dw	na	na	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	na	na	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	na	na	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	na	na	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	na	na	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	na	na	na	na	na	na	na	na
Phenol	µg/kg dw	na	na	na	na	na	na	na	na
PCBs									
Aroclor-1016	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1221	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1232	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1242	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1248	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1254	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1260	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1262	µg/kg dw	na	na	na	na	na	na	na	na
Aroclor-1268	µg/kg dw	na	na	na	na	na	na	na	na
Total PCBs	µg/kg dw	na	na	na	na	na	na	na	na
Dioxin/furan									
2,3,7,8-TCDD	ng/kg dw	0.179 J	0.303 U	0.155 J	0.250 J	0.689 J	0.152 U	0.605 J	0.126 J
1,2,3,7,8-PeCDD	ng/kg dw	0.370 J	1.43 J	0.260 J	0.790 J	1.91 J	0.270 J	1.56 J	0.220 J
1,2,3,4,7,8-HxCDD	ng/kg dw	0.630 J	2.26 J	0.375 J	1.27 J	2.39 J	0.389 J	1.92 J	0.354 U
1,2,3,6,7,8-HxCDD	ng/kg dw	2.42 J	6.20	1.17 J	4.93 J	12.1	1.29 J	5.82	1.92 J
1,2,3,7,8,9-HxCDD	ng/kg dw	1.89 J	6.09	1.10 J	3.52 J	9.28	1.12 J	6.91	1.06 J
1,2,3,4,6,7,8-HpCDD	ng/kg dw	59.3	142	25.4	111	361	26.1	96.8	50.7
OCDD	ng/kg dw	632	1,520	262	1,020	4,440	258	769	496
2,3,7,8-TCDF	ng/kg dw	0.389 J	1.23	0.219 J	0.605 J	3.39	0.236 U	1.87	0.269 J
1,2,3,7,8-PeCDF	ng/kg dw	0.231 J	0.617 J	0.107 J	0.339 J	1.56 J	0.135 J	0.712 J	0.119 J
2,3,4,7,8-PeCDF	ng/kg dw	0.505 J	1.53 J	0.215 J	0.726 J	4.38 J	0.246 J	2.15 J	0.287 J
1,2,3,4,7,8-HxCDF	ng/kg dw	2.16 J	4.70 J	0.650 J	2.16 J	16.6	0.834 J	4.19 J	5.57
1,2,3,6,7,8-HxCDF	ng/kg dw	0.578 J	1.97 J	0.244 J	0.849 J	5.40	0.300 J	1.55 J	0.906 J
1,2,3,7,8,9-HxCDF	ng/kg dw	4.80 U	0.0840 U	5.24 U	0.0900 J	0.301 J	5.14 U	0.0930 U	0.0630 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.472 J	1.40 J	0.197 J	0.771 J	3.26 J	0.258 J	1.35 J	0.391 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	11.4	25.4	4.91 J	22.2	67.6	5.44	17.9	35.1
1,2,3,4,7,8,9-HpCDF	ng/kg dw	0.969 J	2.10 J	0.368 J	1.41 J	7.87	0.393 J	2.18 J	3.06 J
OCDF	ng/kg dw	44.6	87.6	17.1	73.2	234	22.1	56.4	70.3
Total TCDD	ng/kg dw	2.08	3.55	1.16 J	2.59	8.31	0.959 J	9.34	1.04
Total PeCDD	ng/kg dw	2.63	7.85	1.54 J	4.40 J	13.4	2.02 J	13.4	1.21
Total HxCDD	ng/kg dw	21.5	58.0	10.2	39.7	115	11.2	58.9	10.9
Total HpCDD	ng/kg dw	180	515	61.4	293	976	63.7	235	105
Total TCDF	ng/kg dw	6.38	18.3	3.65	10.1	43.2	3.87	36.0	2.83
Total PeCDF	ng/kg dw	8.38	32.5	3.44 J	12.7	57.6	3.65 J	45.5	4.30
Total HxCDF	ng/kg dw	18.5	49.4	7.49	30.9	113	9.27	41.9	34.5

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS534-010	LDW-SS535-010	LDW-SS536-010	LDW-SS537-010	LDW-SS538-010	LDW-SS539-010	LDW-SS540-010	LDW-SS541-010
Total HpCDF	ng/kg dw	39.4	81.0	14.7	65.6	219	18.4	52.1	112
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	2.72 J	6.63 J	1.53 J	4.36 J	15.0 J	1.52 J	6.61 J	2.53 J
Grain size									
Fractional % phi >-1 (>2000 microns)	% dw	1.7	42.3	0.1 U	0.1 U	0.5	0.2	4.1	0.1
Fractional % phi -1-0 (1000-2000 microns)	% dw	2.3	6.5	0.1 U	0.8	1.7	0.6	3.9	0.3
Fractional % phi 0-1 (500-1000 microns)	% dw	12.6	7.9	0.4	7.1	5.9	8.2	7.9	1.4
Fractional % phi 1-2 (250-500 microns)	% dw	36.1	21.8	2.2	16.6	15.4	28.3	11.2	19.4
Fractional % phi 2-3 (125-250 microns)	% dw	10.3	12.1	65.7	13.2	12.4	24.7	10.0	48.5
Fractional % phi 3-4 (62.5-125 microns)	% dw	7.0	2.9	13.8	11.5	10.5	8.7	16.4	9.0
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	7.7	0.5	4.7	7.7	15.1	10.8	15.0	7.1
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	7.0	2.1	4.3	12.1	11.8	6.0	10.2	4.0
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	5.4	0.5	3.3	12.3	9.9	4.3	6.9	3.3
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	3.5	0.9	1.9	7.6	5.7	2.7	5.4	2.4
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	2.0	0.8	0.8	3.7	3.4	1.7	2.8	1.1
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	1.5	0.4	0.7	2.3	2.5	1.1	2.4	1.0
Fractional % phi 10+ (<0.98 micron)	% dw	3.0	1.1	2.0	5.0	5.2	2.7	3.8	2.5
Total gravel	% dw	1.7	42.3	0.1 U	0.1 U	0.5	0.2	4.1	0.1
Total sand	% dw	68.3	51.2	82.1	49.2	45.9	70.5	49.4	78.6
Total silt	% dw	23.6	4.0	14.2	39.7	42.5	23.8	37.5	16.8
Total clay	% dw	6.5	2.3	3.5	11.0	11.1	5.5	9.0	4.6
Total fines (percent silt+clay)	% dw	30.1	6.3	17.7	50.7	53.6	29.3	46.5	21.4
Conventionals									
Total organic carbon (TOC)	% dw	1.72	1.38	1.05	1.54	2.15	1.37	1.45	1.10
Total solids	% ww	64.60	69.00	65.80	54.30	60.10	67.10	58.50	69.90

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatle organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS542-010	LDW-SS543-010	LDW-SS544-010-comp	LDW-SS545-010	LDW-SS546-010	LDW-SS547-010
Metals							
Antimony	mg/kg dw	na	na	na	na	na	na
Arsenic	mg/kg dw	na	na	6.4	na	na	8.3
Cadmium	mg/kg dw	na	na	na	na	na	na
Chromium	mg/kg dw	na	na	na	na	na	na
Cobalt	mg/kg dw	na	na	na	na	na	na
Copper	mg/kg dw	na	na	na	na	na	na
Lead	mg/kg dw	na	na	na	na	na	na
Mercury	mg/kg dw	na	na	na	na	na	na
Molybdenum	mg/kg dw	na	na	na	na	na	na
Nickel	mg/kg dw	na	na	na	na	na	na
Selenium	mg/kg dw	na	na	na	na	na	na
Silver	mg/kg dw	na	na	na	na	na	na
Thallium	mg/kg dw	na	na	na	na	na	na
Vanadium	mg/kg dw	na	na	na	na	na	na
Zinc	mg/kg dw	na	na	na	na	na	na
PAHs							
1-Methylnaphthalene	µg/kg dw	na	na	4.8 U	na	na	4.7 U
2-Chloronaphthalene	µg/kg dw	na	na	na	na	na	na
2-Methylnaphthalene	µg/kg dw	na	na	4.8 U	na	na	4.7 U
Acenaphthene	µg/kg dw	na	na	4.8 U	na	na	4.7 U
Acenaphthylene	µg/kg dw	na	na	4.8 U	na	na	4.7 U
Anthracene	µg/kg dw	na	na	4.8	na	na	11
Benzo(a)anthracene	µg/kg dw	na	na	16	na	na	62
Benzo(a)pyrene	µg/kg dw	na	na	19	na	na	77
Benzo(b)fluoranthene	µg/kg dw	na	na	20 J	na	na	71 J
Benzo(g,h,i)perylene	µg/kg dw	na	na	20	na	na	63
Benzo(k)fluoranthene	µg/kg dw	na	na	20 J	na	na	71 J
Total benzofluoranthenes	µg/kg dw	na	na	40 J	na	na	142 J
Chrysene	µg/kg dw	na	na	23	na	na	92
Dibenzo(a,h)anthracene	µg/kg dw	na	na	5.7	na	na	25
Dibenzofuran	µg/kg dw	na	na	4.8 U	na	na	4.7 U
Fluoranthene	µg/kg dw	na	na	44	na	na	170
Fluorene	µg/kg dw	na	na	4.8 U	na	na	4.7 U
Indeno(1,2,3-cd)pyrene	µg/kg dw	na	na	14	na	na	51
Naphthalene	µg/kg dw	na	na	4.8 U	na	na	4.7 U
Phenanthrene	µg/kg dw	na	na	17	na	na	50
Pyrene	µg/kg dw	na	na	32	na	na	120
Total HPAHs	µg/kg dw	na	na	214 J	na	na	800 J
Total LPAHs	µg/kg dw	na	na	22	na	na	61
Total cPAHs	µg/kg dw	na	na	29 J	na	na	110 J
Total PAHs	µg/kg dw	na	na	236 J	na	na	860 J
Phthalates							

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS542-010	LDW-SS543-010	LDW-SS544-010-comp	LDW-SS545-010	LDW-SS546-010	LDW-SS547-010
Bis(2-ethylhexyl)phthalate	µg/kg dw	na	na	na	na	na	na
Butyl benzyl phthalate	µg/kg dw	na	na	na	na	na	na
Diethyl phthalate	µg/kg dw	na	na	na	na	na	na
Dimethyl phthalate	µg/kg dw	na	na	na	na	na	na
Di-n-butyl phthalate	µg/kg dw	na	na	na	na	na	na
Di-n-octyl phthalate	µg/kg dw	na	na	na	na	na	na
Other SVOCs							
1,2,4-Trichlorobenzene	µg/kg dw	na	na	na	na	na	na
1,2-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na
1,3-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na
1,4-Dichlorobenzene	µg/kg dw	na	na	na	na	na	na
2,4,5-Trichlorophenol	µg/kg dw	na	na	na	na	na	na
2,4,6-Trichlorophenol	µg/kg dw	na	na	na	na	na	na
2,4-Dichlorophenol	µg/kg dw	na	na	na	na	na	na
2,4-Dimethylphenol	µg/kg dw	na	na	na	na	na	na
2,4-Dinitrophenol	µg/kg dw	na	na	na	na	na	na
2,4-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na
2,6-Dinitrotoluene	µg/kg dw	na	na	na	na	na	na
2-Chlorophenol	µg/kg dw	na	na	na	na	na	na
2-Methylphenol	µg/kg dw	na	na	na	na	na	na
2-Nitroaniline	µg/kg dw	na	na	na	na	na	na
2-Nitrophenol	µg/kg dw	na	na	na	na	na	na
3,3'-Dichlorobenzidine	µg/kg dw	na	na	na	na	na	na
3-Nitroaniline	µg/kg dw	na	na	na	na	na	na
4,6-Dinitro-o-cresol	µg/kg dw	na	na	na	na	na	na
4-Bromophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na
4-Chloro-3-methylphenol	µg/kg dw	na	na	na	na	na	na
4-Chloroaniline	µg/kg dw	na	na	na	na	na	na
4-Chlorophenyl phenyl ether	µg/kg dw	na	na	na	na	na	na
4-Methylphenol	µg/kg dw	na	na	na	na	na	na
4-Nitroaniline	µg/kg dw	na	na	na	na	na	na
4-Nitrophenol	µg/kg dw	na	na	na	na	na	na
Aniline	µg/kg dw	na	na	na	na	na	na
Benzoic acid	µg/kg dw	na	na	na	na	na	na
Benzyl alcohol	µg/kg dw	na	na	na	na	na	na
bis(2-chloroethoxy)methane	µg/kg dw	na	na	na	na	na	na
bis(2-chloroethyl)ether	µg/kg dw	na	na	na	na	na	na
bis(2-chloroisopropyl)ether	µg/kg dw	na	na	na	na	na	na
Carbazole	µg/kg dw	na	na	na	na	na	na
Hexachlorobenzene	µg/kg dw	na	na	na	na	na	na
Hexachlorobutadiene	µg/kg dw	na	na	na	na	na	na
Hexachlorocyclopentadiene	µg/kg dw	na	na	na	na	na	na
Hexachloroethane	µg/kg dw	na	na	na	na	na	na

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS542-010	LDW-SS543-010	LDW-SS544-010-comp	LDW-SS545-010	LDW-SS546-010	LDW-SS547-010
Isophorone	µg/kg dw	na	na	na	na	na	na
n-Nitroso-di-n-propylamine	µg/kg dw	na	na	na	na	na	na
n-Nitrosodimethylamine	µg/kg dw	na	na	na	na	na	na
n-Nitrosodiphenylamine	µg/kg dw	na	na	na	na	na	na
Nitrobenzene	µg/kg dw	na	na	na	na	na	na
Pentachlorophenol	µg/kg dw	na	na	na	na	na	na
Phenol	µg/kg dw	na	na	na	na	na	na
PCBs							
Aroclor-1016	µg/kg dw	na	na	3.9 U	na	na	3.9 U
Aroclor-1221	µg/kg dw	na	na	3.9 U	na	na	3.9 U
Aroclor-1232	µg/kg dw	na	na	3.9 U	na	na	3.9 U
Aroclor-1242	µg/kg dw	na	na	3.9 U	na	na	3.9 U
Aroclor-1248	µg/kg dw	na	na	31	na	na	12 U
Aroclor-1254	µg/kg dw	na	na	55	na	na	18
Aroclor-1260	µg/kg dw	na	na	41	na	na	12
Aroclor-1262	µg/kg dw	na	na	3.9 U	na	na	3.9 U
Aroclor-1268	µg/kg dw	na	na	3.9 UJ	na	na	3.9 UJ
Total PCBs	µg/kg dw	na	na	127	na	na	30
Dioxin/furan							
2,3,7,8-TCDD	ng/kg dw	0.351 J	0.205 U	0.606	0.0610 J	0.276 U	0.299 U
1,2,3,7,8-PeCDD	ng/kg dw	0.568 J	0.479 J	0.690 J	0.0700 J	0.546 J	0.942 J
1,2,3,4,7,8-HxCDD	ng/kg dw	0.641 J	0.738 J	0.911 J	0.123 J	0.948 J	1.21
1,2,3,6,7,8-HxCDD	ng/kg dw	2.11 J	2.20 J	2.87	0.197 J	2.77 J	3.61
1,2,3,7,8,9-HxCDD	ng/kg dw	1.96 J	2.20 J	2.73	0.198 J	2.55 J	3.81
1,2,3,4,6,7,8-HpCDD	ng/kg dw	39.5	42.8	60.1	2.77 J	52.3	76.5
OCDD	ng/kg dw	367	373	548	21.5	469	754
2,3,7,8-TCDF	ng/kg dw	0.423 U	0.370 J	0.927 J	0.0740 U	0.693 U	0.859 J
1,2,3,7,8-PeCDF	ng/kg dw	0.238 J	0.181 J	0.414 U	4.51 U	0.238 J	0.350 J
2,3,4,7,8-PeCDF	ng/kg dw	0.424 J	0.328 J	0.948	0.0590 U	0.461 J	0.795 J
1,2,3,4,7,8-HxCDF	ng/kg dw	1.13 J	1.01 J	2.60	0.129 J	0.963 J	1.64
1,2,3,6,7,8-HxCDF	ng/kg dw	0.500 J	0.424 J	1.16	0.0610 J	0.532 J	0.897
1,2,3,7,8,9-HxCDF	ng/kg dw	0.0630 U	0.0440 J	0.102 U	0.0760 J	0.0580 J	0.0710 J
2,3,4,6,7,8-HxCDF	ng/kg dw	0.387 J	0.358 J	0.843 J	0.0740 J	0.463 J	0.843 J
1,2,3,4,6,7,8-HpCDF	ng/kg dw	8.27	8.78	14.0	0.750 J	10.2	14.0
1,2,3,4,7,8,9-HpCDF	ng/kg dw	0.577 J	0.609 J	1.15	0.120 J	0.650 J	0.931
OCDF	ng/kg dw	27.3	32.5	46.0	2.04 J	34.2	53.7
Total TCDD	ng/kg dw	2.14	1.76	4.78	0.122 J	2.37	5.48
Total PeCDD	ng/kg dw	3.79 J	3.35 J	5.70	0.0700 J	3.95 J	7.69
Total HxCDD	ng/kg dw	18.3	19.0	26.7	1.55 J	22.5	34.2
Total HpCDD	ng/kg dw	93.6	105	134	6.44	122	175
Total TCDF	ng/kg dw	6.85	5.70	19.4	0.337 J	7.37	16.1
Total PeCDF	ng/kg dw	8.26	6.18	18.1	0.0640 J	7.20	24.5
Total HxCDF	ng/kg dw	13.8	15.1	27.1	1.35 J	16.2	28.2

Table A-1-3. Results for all chemicals, grain size, and conventional parameters in 2009/2010 LDW surface sediment samples

Chemical	Unit	LDW-SS542-010	LDW-SS543-010	LDW-SS544-010-comp	LDW-SS545-010	LDW-SS546-010	LDW-SS547-010
Total HpCDF	ng/kg dw	25.3	28.7	46.0	2.08 J	30.2	50.1
Dioxin/furan TEQ - mammal (half DL)	ng/kg dw	2.35 J	2.06 J	3.73 J	0.341 J	2.48 J	3.79 J
Grain size							
Fractional % phi >-1 (>2000 microns)	% dw	0.3	0.1 U	0.3	2.0	1.1	1.4
Fractional % phi -1-0 (1000-2000 microns)	% dw	0.6	2.0	1.2	14.8	2.6	1.2
Fractional % phi 0-1 (500-1000 microns)	% dw	1.9	0.9	5.5	41.0	13.2	1.9
Fractional % phi 1-2 (250-500 microns)	% dw	11.9	1.2	14.8	28.1	20.3	8.0
Fractional % phi 2-3 (125-250 microns)	% dw	19.4	6.8	11.7	7.9	8.8	17.9
Fractional % phi 3-4 (62.5-125 microns)	% dw	21.8	15.4	16.8	2.8	15.4	16.5
Fractional % phi 4-5 (31.2-62.5 microns)	% dw	16.9	17.6	13.9	1.2	12.1	12.7
Fractional % phi 5-6 (15.6-31.2 microns)	% dw	9.3	20.9	13.2	0.5	7.1	14.1
Fractional % phi 6-7 (7.8-15.6 microns)	% dw	6.7	15.4	7.4	0.4	5.9	9.5
Fractional % phi 7-8 (3.9-7.8 microns)	% dw	4.2	8.3	4.6	0.4	4.6	6.3
Fractional % phi 8-9 (1.95-3.9 microns)	% dw	2.3	3.4	3.4	0.2	3.5	4.6
Fractional % phi 9-10 (0.98-1.95 microns)	% dw	1.8	2.4	2.2	0.1	2.5	2.5
Fractional % phi 10+ (<0.98 micron)	% dw	2.8	5.7	5.1	0.7	2.9	3.3
Total gravel	% dw	0.3	0.1 U	0.3	2.0	1.1	1.4
Total sand	% dw	55.6	26.3	50.0	94.6	60.3	45.5
Total silt	% dw	37.1	62.2	39.0	2.5	29.7	42.6
Total clay	% dw	6.9	11.5	10.7	1.0	8.9	10.4
Total fines (percent silt+clay)	% dw	44.0	73.7	49.7	3.5	38.6	53.0
Conventionals							
Total organic carbon (TOC)	% dw	1.16	3.64	1.88	1.01	2.60	2.04
Total solids	% ww	62.00	45.40	62.70	77.40	58.90	52.30 J

^a This is a field duplicate sample of the sample directly preceding it.

dw – dry weight

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

J – estimated concentration

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na - not analyzed

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

TEQ - toxic equivalent

U – not detected at reporting limit shown

UJ – not detected at estimated reporting limit shown

ww – wet weight

Table A-1-4. Results for OC-normalized SMS chemicals in sample LDW-SS527 and associated field duplicate sample

Analyte	Unit	LDW-SS527-010	LDW-SS603-010 ^a	SQS	CSL
PAHs					
2-Methylnaphthalene	mg/kg OC	0.92 U	0.82 U	38	64
Acenaphthene	mg/kg OC	0.50 J	0.45 J	16	57
Acenaphthylene	mg/kg OC	0.92 U	0.82 U	66	66
Anthracene	mg/kg OC	1.4	1.3	220	1,200
Benzo(a)anthracene	mg/kg OC	4.3	3.7	110	270
Benzo(a)pyrene	mg/kg OC	3.9	3.9	99	210
Benzo(g,h,i)perylene	mg/kg OC	2.5	1.9	31	78
Total benzofluoranthenes	mg/kg OC	7.98 J	7.74 J	230	450
Chrysene	mg/kg OC	6.9	5.8	110	460
Dibenzo(a,h)anthracene	mg/kg OC	1.2	0.91	12	33
Dibenzofuran	mg/kg OC	0.92 U	0.45 J	15	58
Fluoranthene	mg/kg OC	8.7	9.5	160	1,200
Fluorene	mg/kg OC	0.50 J	0.45 J	23	79
Indeno(1,2,3-cd)pyrene	mg/kg OC	2.3	1.9	34	88
Naphthalene	mg/kg OC	0.92 U	0.82 U	99	170
Phenanthrene	mg/kg OC	3.1	3.9	100	480
Pyrene	mg/kg OC	7.8	7.0	1,000	1,400
Total HPAHs	mg/kg OC	45 J	42.4 J	960	5,300
Total LPAHs	mg/kg OC	5.46 J	6.05 J	370	780
Phthalates					
Bis(2-ethylhexyl)phthalate	mg/kg OC	15	9.5	47	78
Butyl benzyl phthalate	mg/kg OC	1.0	0.91	4.9	64
Diethyl phthalate	mg/kg OC	0.69 U	0.62 U	61	110
Dimethyl phthalate	mg/kg OC	0.69 U	7.4	53	53
Di-n-butyl phthalate	mg/kg OC	0.92	1.5	220	1,700
Di-n-octyl phthalate	mg/kg OC	0.92 U	0.82 U	58	4,500
Other SVOCs					
1,2,4-Trichlorobenzene	mg/kg OC	0.28 U	0.25 U	0.81	1.8
1,2-Dichlorobenzene	mg/kg OC	0.28 U	0.25 U	2.3	2.3
1,4-Dichlorobenzene	mg/kg OC	0.28 U	0.25 U	3.1	9.0
Hexachlorobenzene	mg/kg OC	0.28 UJ	0.25 UJ	0.38	2.3
Hexachlorobutadiene	mg/kg OC	0.28 U	0.25 U	3.9	6.2
n-Nitrosodiphenylamine	mg/kg OC	0.28 UJ	0.25 UJ	11	11
PCBs					
Total PCBs	mg/kg OC	4.2	3.2	12	65

^a This is a field duplicate sample of LDW-SS527-010
 CSL – cleanup screening level
 HPAH – high-molecular-weight polycyclic aromatic hydrocarbon
 J – estimated concentration
 LPAH – low-molecular-weight polycyclic aromatic hydrocarbon
 OC – organic carbon
 PAH – polycyclic aromatic hydrocarbon
 PCB – polychlorinated biphenyl
 SMS – Sediment Management Standards
 SQS – sediment quality standards
 SVOC – semivolatile organic compound
 U – not detected at reporting limit shown
 UJ – not detected at estimated reporting limit shown

Table A-1-5. Results for laboratory duplicates for dioxins and furans in 2009/2010 LDW surface sediment samples

Chemical	LDW-SS505-010			LDW-SS520-010			LDW-SS534-010			LDW-SS536-010		
	Original Sample	Laboratory Duplicate Sample	RPD	Original Sample	Laboratory Duplicate Sample	RPD	Original Sample	Laboratory Duplicate Sample	RPD	Original Sample	Laboratory Duplicate Sample	RPD
1,2,3,4,6,7,8-HpCDD	402	382	5	209	182	14	59.4	59.1	1	26.9	23.9	12
1,2,3,4,6,7,8-HpCDF	74.4	72.7	2	38.9	33.5	15	10.7	12.1	12	5.15	4.66	10
1,2,3,4,7,8,9-HpCDF	5.37	5.20	3	2.65	2.43	9	0.757	1.18	44	0.401	0.335	18
1,2,3,4,7,8-HxCDD	3.79	3.98	5	2.49	2.40	4	0.670	0.590	13	0.368	0.383	4
1,2,3,4,7,8-HxCDF	8.61	8.80	2	4.79	4.29	11	1.56	2.75	55	0.662	0.637	4
1,2,3,6,7,8-HxCDD	15.3	14.9	3	8.40	7.71	9	2.42	2.41	0.4	1.14	1.21	6
1,2,3,6,7,8-HxCDF	2.91	2.86	2	2.22	1.77	23	0.522	0.634	19	0.249	0.239	4
1,2,3,7,8,9-HxCDD	11.1	11.2	1	7.80	7.12	9	1.97	1.80	9	1.03	1.16	12
1,2,3,7,8,9-HxCDF	0.223	0.238	7	0.146	0.140 U	nc	4.80 U	4.84 U	nc	5.24 U	5.41 U	nc
1,2,3,7,8-PeCDD	2.12	2.19	3	1.42	1.41	0.7	0.387	0.353	9	0.205 U	0.260	nc
1,2,3,7,8-PeCDF	1.17	1.16	1	0.722 U	0.595	nc	0.234	0.228	3	0.107	0.102 U	nc
2,3,4,6,7,8-HxCDF	2.36	2.31	2	2.47	1.29	63	0.449	0.495	10	0.211	0.184	14
2,3,4,7,8-PeCDF	2.65	2.52	5	1.80	1.38	26	0.450	0.560	22	0.215	0.215	0.0
2,3,7,8-TCDD	0.511	0.558	9	0.378	0.378	0	0.169	0.189	11	0.138	0.171	21
2,3,7,8-TCDF	2.26	2.30	2	1.12	1.23	9	0.452 U	0.389	nc	0.271	0.167	47
OCDD	3,900	3,770	3	1,970	1,850	6	683	580	16	291	233	22
OCDF	330	316	4	151	132	13	43.7	45.5	4	18.2	16.0	13
Total HpCDD	1,130	1,090	4	612	541	12	214	146	38	64.2	58.6	9
Total HpCDF	282	275	3	138	117	16	37.7	41.0	8	15.5	13.8	12
Total HxCDD	141	141	0	76.6	73.3	4	22.9	20.0	14	9.74	10.7	9
Total HxCDF	111	111	0	61.5	54.1	13	17.1	19.8	15	7.84	7.15	9
Total PeCDD	14.5	15.8	9	9.88	9.54	4	2.46	2.79	13	1.51	1.56	3
Total PeCDF	46.1	43.3	6	29.3	26.9	9	8.37	8.38	0.1	3.52	3.35	5
Total TCDD	8.1	8.76	8	4.57	4.98	9	1.59	2.57	47	0.912	1.40	42
Total TCDF	33.5	33.8	1	23.7	21.8	8	6.45	6.30	2	4.05	3.24	22
Dioxin/furan TEQ - mammal (half DL)	14.2	14.0	1	8.43	7.58	11	2.65	2.78	5	1.38	1.53	10

nc - not calculated

RPD - relative percent difference

TEQ - toxicity equivalent

U - not detected at reporting limit shown