PORTLAND HARBOR RI/FS

REMEDIAL INVESTIGATION REPORT

APPENDIX D5.1
CONTAMINANT SUMMARY STATISTICS IN BIOTA—TABLES

DRAFT FINAL

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Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Black crappie (fillet without skin)																
Metals																
Mercury	mg/kg-wet	4	4	100	0.067	0.101	FZ0609	0.086	0.088	0.0994	0.067	0.101	FZ0609	0.086	0.088	0.0994
Black crappie (fillet)																
Metals																
Cadmium	mg/kg-wet	4	2	50	0.001 J	0.001 J	FZ0306; FZ0609	0.001	0.001 J	0.001 J	0.001 U	0.001 U	FZ0306; FZ0609	0.00075	0.00075 J	0.001 J
Lead	mg/kg-wet	4	0	0	--	--	--	--	--	--	0.001 U	0.005 U	FZ0306	0.00113	0.00075 U	0.00228 U
Nickel	mg/kg-wet	4	2	50	0.057	0.064	FZ0306	0.0605	0.0605	0.0637	0.001 U	0.064	FZ0306	0.0305	0.0288	0.063
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	4	0	0	--	--	--	--	--	--	1 U	1 U	FZ0306; FZ0609	0.5	0.5 U	0.5 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	4	0	0	--	--	--	--	--	--	1 U	1 U	FZ0306; FZ0609	0.5	0.5 U	0.5 U
Black crappie (whole body)																
Metals																
Cadmium	mg/kg-wet	4	4	100	0.003 J	0.006 J	FZ0609	0.00388	0.00325 J	0.00563 J	0.003 J	0.006 J	FZ0609	0.00388	0.00325 J	0.00563 J
Lead	mg/kg-wet	4	1	25	0.0185 JT	0.0185 JT	FZ0306	0.0185	0.0185 JT	0.0185 JT	0.004 UJ	0.0185 JT	FZ0306	0.00663	0.003 UJ	0.0163 J
Mercury	mg/kg-wet	4	4	100	0.033	0.044	FZ0609	0.0394	0.0403	0.044	0.033	0.044	FZ0609	0.0394	0.0403	0.044
Nickel	mg/kg-wet	4	4	100	0.33 JT	0.357 J	FZ0609	0.343	0.343 J	0.356 J	0.33 JT	0.357 J	FZ0609	0.343	0.343 J	0.356 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	4	4	100	1.67 JT	3.22 T	FZ0609	2.16	1.88	3.05	1.67 JT	3.22 T	FZ0609	2.16	1.88	3.05
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	4	0	0	--	--	--	--	--	--	1 U	1.6 U	FZ0306	0.638	0.625 U	0.793 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	4	2	50	5.7 NT	8.1 N	FZ0609	6.9	6.9	7.98	1 U	8.1 N	FZ0609	3.71	3.13	7.74
Brown bullhead (fillet without skin)																
Metals																
Cadmium	mg/kg-wet	6	5	83	0.001 J	0.001 J	FZ0306; FZ0609	0.001	0.001 J	0.001 J	0.001 J	0.008 U	FZ0609	0.0015	0.001 J	0.00325 J
Lead	mg/kg-wet	6	0	0	--	--	--	--	--	--	0.002 U	0.008 U	FZ0609	0.00183	0.00125 U	0.00363 U
Mercury	mg/kg-wet	6	6	100	0.035	0.094	FZ0609	0.0608	0.059	0.089	0.035	0.094	FZ0609	0.0608	0.059	0.089
Nickel	mg/kg-wet	6	6	100	0.003 J	0.055	FZ0306	0.0205	0.014 J	0.0485 J	0.003 J	0.055	FZ0306	0.0205	0.014 J	0.0485 J
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	0	0	--	--	--	--	--	--	1 U	9.6 UT	FZ0609	1.47	0.5 U	4.1 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	80 UT	FZ0306	24.1	16.5 U	39.6 U
Naphthalene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	73 UT	FZ0306	25.7	24.8 U	36.1 U
Phenanthrene	µg/kg-wet	6	2	33	110 JT	140 T	FZ0306	125	125 J	139 J	33 UT	140 T	FZ0306	57.9	32.3 U	133 J
Total cPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	80 UT	FZ0306	24.1	16.5 U	39.6 U
Total HPAHs	µg/kg-wet	6	1	17	110 T	110 T	FZ0306	110	110 T	110 T	33 UT	110 UT	FZ0306	43.8	32.3 U	96.3
Total LPAHs	µg/kg-wet	6	2	33	110 JT	140 T	FZ0306	125	125 J	139 J	33 UT	140 T	FZ0306	60.7	40.5 U	133 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	0	0	--	--	--	--	--	--	330 U	330 U	FZ0306; FZ0609	165	165 U	165 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	0	0	--	--	--	--	--	--	1 UT	6.4 UT	FZ0609	1.2	0.5 U	2.9 U
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	170 UT	190 UT	FZ0306	86.7	85 U	92.5 U
Brown bullhead (whole body)																
Metals																
Cadmium	mg/kg-wet	6	6	100	0.008 J	0.014	FZ0306	0.0116	0.0125 J	0.014	0.008 J	0.014	FZ0306	0.0116	0.0125 J	0.014
Lead	mg/kg-wet	6	5	83	0.023	0.0435 T	FZ0609	0.0289	0.026	0.04	0.014 U	0.0435 T	FZ0609	0.0253	0.026	0.0391
Mercury	mg/kg-wet	6	6	100	0.025 T	0.054	FZ0306	0.0367	0.033	0.052	0.025 T	0.054	FZ0306	0.0367	0.033	0.052
Nickel	mg/kg-wet	6	5	83	0.213 J	0.321 J	FZ0306	0.264	0.261 J	0.315 J	0.213 J	0.328 UJT	FZ0609	0.248	0.249 J	0.313 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	6	6	100	1.6 T	6.04 T	FZ0609	3.47	2.91	5.76	1.6 T	6.04 T	FZ0609	3.47	2.91	5.76
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	3	50	1.4 N	1.9 N	FZ0609	1.6	1.5 N	1.86	1 U	9.6 UT	FZ0609	2.02	1.7	4.1 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	16.5	16.5 U	16.5 U
Naphthalene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	16.5	16.5 U	16.5 U
Phenanthrene	µg/kg-wet	6	1	17	60 T	60 T	FZ0306	60	60 T	60 T	33 UT	60 T	FZ0306	23.8	16.5 U	49.1
Total cPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	16.5	16.5 U	16.5 U
Total HPAHs	µg/kg-wet	6	1	17	40 T	40 T	FZ0306	40	40 T	40 T	33 UT	49 UT	FZ0609	22.8	19.8 U	36.1

Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Total LPAHs	µg/kg-wet	6	1	17	60 T	60 T	FZ0306	60	60 T	60 T	33 UT	60 T	FZ0306	23.8	16.5 U	49.1
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	0	0	--	--	--	--	--	--	330 U	330 U	FZ0306; FZ0609	165	165 U	165 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	0	0	--	--	--	--	--	--	1 UT	33 UT	FZ0306; FZ0609	9.2	9.85 U	16.5 U
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	160 UT	190 UT	FZ0609	86.7	85 U	93.8 U
Carp (fillet without skin)																
Metals																
Mercury	mg/kg-wet	6	6	100	0.074	0.191 T	FZ0306	0.127	0.115	0.19	0.074	0.191 T	FZ0306	0.127	0.115	0.19
Carp (fillet)																
Metals																
Cadmium	mg/kg-wet	12	9	75	0.002 J	0.009 J	FZ0609	0.00444	0.004 J	0.0082 J	0.002 J	0.009 J	FZ0609	0.00371	0.0035 J	0.0079 J
Lead	mg/kg-wet	12	8	67	0.012	0.356	CP0812	0.0867	0.0543	0.258	0.004 U	0.356	CP0812	0.0586	0.0405	0.203
Mercury	mg/kg-wet	6	6	100	0.0411	0.0731	CP0408	0.0581	0.0565	0.0728	0.0411	0.0731	CP0408	0.0581	0.0565	0.0728
Nickel	mg/kg-wet	12	11	92	0.012 J	0.396	CP0408	0.0742	0.04 J	0.242	0.002 U	0.396	CP0408	0.0681	0.039 J	0.226
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	6	6	100	0.386 T	8.02 T	CP0408	2.14	0.735	6.63	0.386 T	8.02 T	CP0408	2.14	0.735	6.63
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	12	6	50	0.0196 JT	0.0356 J	CP0408	0.0261	0.0256 J	0.0336 J	0.0196 JT	9.6 UT	FZ0609	1.48	1.02 J	4.8 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	0.081 U	0.081 U	CP0408; CP0812	0.0405	0.0405 U	0.0405 U
Naphthalene	µg/kg-wet	6	3	50	3.1	6.8	CP0408	5.5	6.6	6.78	1.8 U	6.8	CP0408	3.24	2.08	6.75
Phenanthrene	µg/kg-wet	6	3	50	6.8	13	CP0408	10.6	12	12.9	1.7 U	13	CP0408	5.84	4.1	12.8
Total cPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	0.081 UT	0.081 UT	CP0408; CP0812	0.0405	0.0405 U	0.0405 U
Total HPAHs	µg/kg-wet	6	6	100	0.64 T	9.2 T	CP0408	4.16	2.65	9.08	0.64 T	9.2 T	CP0408	4.16	2.65	9.08
Total LPAHs	µg/kg-wet	6	6	100	11 T	130 T	CP0408	48.2	27	118	11 T	130 T	CP0408	48.2	27	118
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CP0408; CP0812	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	12	8	67	1.91 T	140 T	FZ0609	19.9	2.29	92.5	1.91 T	140 T	FZ0609	14	2.29	65.3
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	30 U	30 U	CP0408; CP0812	15	15 U	15 U
Carp (body without fillet)																
Metals																
Cadmium	mg/kg-wet	6	6	100	0.0485 T	0.111	CP0812	0.0736	0.071	0.106	0.0485 T	0.111	CP0812	0.0736	0.071	0.106
Lead	mg/kg-wet	6	6	100	0.0954	1.38	CP0812	0.38	0.202	1.1	0.0954	1.38	CP0812	0.38	0.202	1.1
Mercury	mg/kg-wet	6	6	100	0.0248	0.0508	CP0812	0.0413	0.0459	0.0504	0.0248	0.0508	CP0812	0.0413	0.0459	0.0504
Nickel	mg/kg-wet	6	6	100	0.368	0.697 T	CP0408	0.555	0.605	0.684	0.368	0.697 T	CP0408	0.555	0.605	0.684
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	6	6	100	0.655 T	12.8 T	CP0408	4.25	2.92	10.9	0.655 T	12.8 T	CP0408	4.25	2.92	10.9
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	6	100	0.035 J	0.0499 J	CP0408	0.0405	0.0393 J	0.0477 J	0.035 J	0.0499 J	CP0408	0.0405	0.0393 J	0.0477 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	1	17	0.78 JT	0.78 JT	CP0812	0.78	0.78 JT	0.78 JT	0.081 U	3.3 U	CP0408	0.579	0.405 U	1.43 J
Naphthalene	µg/kg-wet	6	1	17	23 T	23 T	CP0812	23	23 T	23 T	2 U	23 T	CP0812	7.28	5.25 U	19.3
Phenanthrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	2.6 U	33 U	CP0408	8.02	7.03 U	16 U
Total cPAHs	µg/kg-wet	6	1	17	4.1 JT	4.1 JT	CP0812	4.1	4.1 JT	4.1 JT	0.081 UT	4.1 JT	CP0812	1.13	0.405 U	3.49 J
Total HPAHs	µg/kg-wet	6	2	33	4.9 JT	31 JT	CP0408	18	18 J	29.7 J	0.098 UT	31 JT	CP0408	8.01	4.9 J	25 J
Total LPAHs	µg/kg-wet	6	6	100	10 JT	170 T	CP0408	65.2	49 J	152 J	10 JT	170 T	CP0408	65.2	49 J	152 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	0	0	--	--	--	--	--	--	7.3 UJ	7.3 UJ	CP0408; CP0812	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	6	100	3.11	4.74	CP0408	3.71	3.6	4.49	3.11	4.74	CP0408	3.71	3.6	4.49
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	30 U	30 U	CP0408; CP0812	15	15 U	15 U
Carp (whole body)																
Metals																
Cadmium	mg/kg-wet	6	6	100	0.048	0.108	FZ0306	0.0688	0.0645	0.0986	0.048	0.108	FZ0306	0.0688	0.0645	0.0986
Lead	mg/kg-wet	6	6	100	0.121 J	0.202 J	FZ0609	0.151	0.141 J	0.194 J	0.121 J	0.202 J	FZ0609	0.151	0.141 J	0.194 J
Mercury	mg/kg-wet	7	7	100	0.029	0.047 T	FZ0609	0.0405	0.042	0.0463	0.029	0.047 T	FZ0609	0.0405	0.042	0.0463

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					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Nickel	mg/kg-wet	6	6	100	0.401 JT	1.37 J	FZ0306	0.745	0.66 J	1.24 J	0.401 JT	1.37 J	FZ0306	0.745	0.66 J	1.24 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	6	6	100	3.36 T	16.2 T	FZ0306	6.86	5.38	13.8	3.36 T	16.2 T	FZ0306	6.86	5.38	13.8
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	0	0	--	--	--	--	--	--	1 U	9.6 UT	FZ0306; FZ0609	2.96	3.4 U	4.8 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	31 UT	33 UT	FZ0306; FZ0609	16.1	16 U	16.5 U
Naphthalene	µg/kg-wet	6	2	33	46 T	56 JT	FZ0609	51	51 J	55.5 J	32 UT	56 JT	FZ0609	27.8	16.3 U	53.5 J
Phenanthrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	31 UT	33 UT	FZ0306; FZ0609	16.1	16 U	16.5 U
Total cPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	31 UT	33 UT	FZ0306; FZ0609	16.1	16 U	16.5 U
Total HPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	31 UT	33 UT	FZ0306; FZ0609	16.1	16 U	16.5 U
Total LPAHs	µg/kg-wet	6	2	33	111 T	222 JT	FZ0609	167	167 J	216 J	32 UT	222 JT	FZ0609	66.3	16.3 U	194 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	0	0	--	--	--	--	--	--	620 U	660 U	FZ0306	322	323 U	329 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	0	0	--	--	--	--	--	--	4 UT	32 UT	FZ0306	5.13	3.2 U	12.8 U
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	160 UT	160 UT	FZ0306; FZ0609	80	80 U	80 U
Chinook (stomach contents)																
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	5	5	100	0.0889 T	1.85 T	T02	1.08	1.3 T	1.8	0.0889 T	1.85 T	T02	1.08	1.3 T	1.8
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	5	1	20	0.128 J	0.128 J	T02	0.128	0.128 J	0.128 J	0.0194 U	0.128 J	T02	0.0412	0.0218 U	0.109 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	5	2	40	2.26 J	20.7	T02	11.5	11.5 J	19.8 J	1.63 U	20.7	T02	5.67	2.26 J	17.1
Naphthalene	µg/kg-wet	5	0	0	--	--	--	--	--	--	27.3 U	38.8 UJ	T02	17.1	18.8 U	19.3 UJ
Phenanthrene	µg/kg-wet	5	5	100	33.9	862	T02	220	53.8	710	33.9	862	T02	220	53.8	710
Total cPAHs	µg/kg-wet	5	5	100	14 JT	270 JT	T02	94.8	65 JT	232 J	14 JT	270 JT	T02	94.8	65 JT	232 J
Total HPAHs	µg/kg-wet	5	5	100	49.9 JT	1050 JT	T02	338	200 JT	892 J	49.9 JT	1050 JT	T02	338	200 JT	892 J
Total LPAHs	µg/kg-wet	5	5	100	45.7 JT	1410 JT	T02	347	72.3 JT	1160 J	45.7 JT	1410 JT	T02	347	72.3 JT	1160 J
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	5	5	100	0.469	1.66	T02	0.932	0.849	1.54	0.469	1.66	T02	0.932	0.849	1.54
Chinook (whole body)																
Metals																
Cadmium	mg/kg-wet	15	15	100	0.00965	0.027	02R102	0.0145	0.0125	0.0249	0.00965	0.027	02R102	0.0145	0.0125	0.0249
Lead	mg/kg-wet	15	3	20	0.01 J	0.015 J	02R102	0.013	0.014 J	0.0149 J	0.006 UJ	0.0741 U	T02	0.0141	0.0131 U	0.0308 U
Mercury	mg/kg-wet	15	15	100	0.0101 J	0.02	02R102	0.0139	0.0124	0.0193	0.0101 J	0.02	02R102	0.0139	0.0124	0.0193
Nickel	mg/kg-wet	15	15	100	0.202	0.492 J	02R102	0.294	0.283	0.455 J	0.202	0.492 J	02R102	0.294	0.283	0.455 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	9	9	100	1.23 T	3.75 T	T02	1.97	1.73 T	3.15	1.23 T	3.75 T	T02	1.97	1.73 T	3.15
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	15	0	0	--	--	--	--	--	--	0.18 U	1.1 U	T01; T02; T03	0.346	0.5 U	0.55 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	15	0	0	--	--	--	--	--	--	0.13 U	33 UT	02R113; 03R118; 04R126	6.51	0.065 U	16.5 U
Naphthalene	µg/kg-wet	15	8	53	3.8	33 T	02R113	8.41	5.05	23.8	2.9 U	33 UT	02R113; 03R118; 04R126	10.1	5.8	21.5
Phenanthrene	µg/kg-wet	15	9	60	0.88	1.9	T01	1.36	1.4	1.86	0.88	33 UT	02R113; 03R118; 04R126	7.29	1.8	16.5 U
Total cPAHs	µg/kg-wet	15	8	53	0.15 JT	1.6 JT	T01	0.613	0.385 J	1.43 J	0.15 JT	33 UT	02R113; 03R118; 04R126	6.8	1.1 JT	16.5 U
Total HPAHs	µg/kg-wet	15	8	53	0.93 JT	3.8 JT	T01	2.03	1.72 J	3.5 J	0.37 UT	33 UT	02R113; 03R118; 04R126	7.56	2.94 JT	16.5 U
Total LPAHs	µg/kg-wet	15	10	67	8.38 JT	33 T	02R113	14.6	12.5 J	25.8 J	8.38 JT	41 UT	02R102	15.7	16 UT	24.3
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	11	4	36	160 J	220	T01	190	190	216	160 J	3700 U	04R126	662	190	1830 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	15	9	60	0.62 J	1.2	T02	0.851	0.83 J	1.12 J	0.62 J	33 UT	04R126	3.38	0.83 J	15.8 U
Phenols																
Pentachlorophenol	µg/kg-wet	11	1	9	400 J	400 J	T01	400	400 J	400 J	60 U	420 U	T03	120	80 UT	305 J
Lamprey Ammocoetes and Macropthalmia																
Metals																
Cadmium	mg/kg-wet	4	4	100	0.002 J	0.005	LTAC2	0.003	0.0025 J	0.0047 J	0.002 J	0.005	LTAC2	0.003	0.0025 J	0.0047 J
Lead	mg/kg-wet	4	4	100	0.0331	0.153	LTAC2	0.0823	0.0715	0.144	0.0331	0.153	LTAC2	0.0823	0.0715	0.144
Mercury	mg/kg-wet	2	2	100	0.217	0.355	LTAC2	0.286	0.286	0.348	0.217	0.355	LTAC2	0.286	0.286	0.348
Nickel	mg/kg-wet	4	4	100	0.129	0.292	LTAC2	0.21	0.209	0.284	0.129	0.292	LTAC2	0.21	0.209	0.284

Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	6	6	100	1.01 T	3.68 T	LTAC2	2.18	1.89	3.64	1.01 T	3.68 T	LTAC2	2.18	1.89	3.64
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	4	67	0.0181 J	0.0696 J	LTA3M2	0.0495	0.0552 J	0.0688 J	0.0181 J	0.0696 J	LTA3M2	0.0372	0.0321 J	0.0683 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	3	1	33	0.47 J	0.47 J	LTAC2	0.47	0.47 J	0.47 J	0.22 U	0.47 J	LTAC2	0.23	0.11 U	0.434 J
Naphthalene	µg/kg-wet	3	3	100	2.6	3.7	LTAC2	3.17	3.2	3.65	2.6	3.7	LTAC2	3.17	3.2	3.65
Phenanthrene	µg/kg-wet	3	3	100	14	96	LTMC1	51	43	90.7	14	96	LTMC1	51	43	90.7
Total cPAHs	µg/kg-wet	3	3	100	0.24 JT	1.9 JT	LTAC2	0.96	0.74 JT	1.78 J	0.24 JT	1.9 JT	LTAC2	0.96	0.74 JT	1.78 J
Total HPAHs	µg/kg-wet	3	3	100	7.8 JT	160 JT	LTAC2	74.6	56 JT	150 J	7.8 JT	160 JT	LTAC2	74.6	56 JT	150 J
Total LPAHs	µg/kg-wet	3	3	100	40 T	190 JT	LTMC1	117	120 T	183 J	40 T	190 JT	LTMC1	117	120 T	183 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	1	0	0	--	--	--	--	--	--	7.3 U	7.3 U	LTAC2	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	6	100	1.25	4.62	LTA3M2	2.84	2.82	4.48	1.25	4.62	LTA3M2	2.84	2.82	4.48
Phenols																
Pentachlorophenol	µg/kg-wet	1	0	0	--	--	--	--	--	--	30 U	30 U	LTAC2	15	15 U	15 U
Largescale sucker (whole body)																
Metals																
Cadmium	mg/kg-wet	6	6	100	0.015 J	0.0325 JT	08R010	0.0206	0.0185 J	0.0301 J	0.015 J	0.0325 JT	08R010	0.0206	0.0185 J	0.0301 J
Lead	mg/kg-wet	6	6	100	0.064	0.191 T	08R010	0.122	0.114	0.187	0.064	0.191 T	08R010	0.122	0.114	0.187
Mercury	mg/kg-wet	6	6	100	0.045	0.085	07R009	0.0677	0.0725	0.0835	0.045	0.085	07R009	0.0677	0.0725	0.0835
Nickel	mg/kg-wet	6	6	100	0.29	0.81	09R006	0.463	0.395	0.749	0.29	0.81	09R006	0.463	0.395	0.749
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	1	17	4.5 NJ	4.5 NJ	03R014	4.5	4.5 NJ	4.5 NJ	3.5 U	9.6 UT	07R009	2.84	2 U	4.73 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14.4	14 U	16.4 U
Naphthalene	µg/kg-wet	6	1	17	54 T	54 T	07R009	54	54 T	54 T	26 UT	54 T	07R009	21.3	15.5 U	44.6
Phenanthrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14.4	14 U	16.4 U
Total cPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14.4	14 U	16.4 U
Total HPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14.4	14 U	16.4 U
Total LPAHs	µg/kg-wet	6	2	33	42 JT	147 JT	07R009	94.5	94.5 J	142 J	26 UT	147 JT	07R009	41.1	15.8 U	121 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	0	0	--	--	--	--	--	--	260 U	330 U	03R014	144	140 U	164 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	0	0	--	--	--	--	--	--	4 UT	32 UT	05R006	4.53	2 U	12.8 U
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	130 UT	170 UT	03R014	72.5	70 U	83.8 U
Northern pikeminnow (whole body)																
Metals																
Cadmium	mg/kg-wet	6	6	100	0.007 J	0.012 J	05R006	0.00975	0.01 J	0.0119 J	0.007 J	0.012 J	05R006	0.00975	0.01 J	0.0119 J
Lead	mg/kg-wet	6	4	67	0.008	0.016	07R009	0.0118	0.0115	0.0157	0.005 UT	0.016	07R009	0.00883	0.0085	0.0155
Mercury	mg/kg-wet	6	6	100	0.146 T	0.494	07R009	0.28	0.25	0.468	0.146 T	0.494	07R009	0.28	0.25	0.468
Nickel	mg/kg-wet	6	6	100	0.119 J	0.461 J	07R009	0.259	0.246 J	0.422 J	0.119 J	0.461 J	07R009	0.259	0.246 J	0.422 J
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	0	0	--	--	--	--	--	--	4 UT	9.8 U	08R010	3.88	4.8 U	4.88 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	0	0	--	--	--	--	--	--	4 UT	9.8 U	08R010	3.08	3.2 U	4.48 U
Peamouth (whole body)																
Metals																
Cadmium	mg/kg-wet	4	4	100	0.021	0.053	09R006	0.032	0.027	0.0493	0.021	0.053	09R006	0.032	0.027	0.0493
Lead	mg/kg-wet	4	4	100	0.031	10.6	03R014	2.7	0.079	9.03	0.031	10.6	03R014	2.7	0.079	9.03
Mercury	mg/kg-wet	4	4	100	0.031	0.054	09R006	0.0383	0.034	0.0512	0.031	0.054	09R006	0.0383	0.034	0.0512
Nickel	mg/kg-wet	4	4	100	0.27 J	0.482 J	03R014	0.386	0.397 J	0.477 J	0.27 J	0.482 J	03R014	0.386	0.397 J	0.477 J
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	4	0	0	--	--	--	--	--	--	1 UT	3.3 UT	03R014	1.05	1.03 U	1.57 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	4	3	75	5.7 NT	7.3 NT	03R014	6.23	5.7 NT	7.14	3.8 UT	7.3 NT	03R014	5.15	5.7	7.06
Sculpin (whole body)																
Metals																
Cadmium	mg/kg-wet	38	38	100	0.003 J	0.022	02R015	0.00792	0.0065 J	0.019	0.003 J	0.022	02R015	0.00792	0.0065 J	0.019

Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Lead	mg/kg-wet	38	37	97	0.0149 J	0.96 J	04R002	0.112	0.059	0.313 J	0.0149 J	0.96 J	04R002	0.114	0.0595	0.299 J
Mercury	mg/kg-wet	39	39	100	0.025	0.127 T	SP07E	0.0498	0.042	0.0885	0.025	0.127 T	SP07E	0.0498	0.042	0.0885
Nickel	mg/kg-wet	38	32	84	0.16	1.01	SP04W	0.334	0.312	0.63	0.08 U	1.01	SP04W	0.29	0.283	0.529
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	21	21	100	0.254 T	24.1 T	02R001	3.97	1.48 T	8.6 T	0.254 T	24.1 T	02R001	3.97	1.48 T	8.6 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	38	18	47	0.0146 J	3.1 NJ	03R004	1.18	1.25 J	2.76 J	0.0113 U	9.6 U	05R001; 06R002; 09R002	1.49	1.4 J	4.8 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	38	1	3	1.2 J	1.2 J	SP08E	1.2	1.2 J	1.2 J	0.081 U	33 UT	02R015; 03R004; 06R002	10.5	14.5 U	16.5 U
Naphthalene	µg/kg-wet	38	13	34	1.6	250	SP06W	24.5	2.4	125	1.6	250	SP06W	18.4	14.8 U	20.3
Phenanthrene	µg/kg-wet	38	12	32	0.93	33	SP06W	7.94	4.5	23.1	0.93	33 UT	02R015; 03R004; 06R002; SP06W	12.9	15 U	16.5 U
Total cPAHs	µg/kg-wet	38	5	13	1.2 JT	9.8 T	SP06W	3.18	1.6 T	8.2	0.081 UT	33 UT	02R015; 03R004; 06R002	10.8	14.5 U	16.5 U
Total HPAHs	µg/kg-wet	38	12	32	0.62 T	38 T	SP06W	6.73	4.85	20.7	0.62 T	38 T	SP06W	12.6	15 U	16.5 U
Total LPAHs	µg/kg-wet	38	22	58	7.2 JT	510 T	SP06W	54.9	31.5 J	128 J	7.2 JT	510 T	SP06W	39.5	19	62.3
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	38	0	0	--	--	--	--	--	--	7.3 U	330 UJ	02R015; 03R004; 04R004; 06R002; 08R003	107	150 U	165 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	38	12	32	1.09	1.8	SP11E	1.49	1.51	1.78	1.09	33 UT	03R004	6.57	2.6 U	16 U
Phenols																
Pentachlorophenol	µg/kg-wet	38	0	0	--	--	--	--	--	--	30 U	170 UT	03R004; 06R002	56.8	70 U	80.8 U
Smallmouth bass (fillet without skin)																
Metals																
Mercury	mg/kg-wet	5	5	100	0.071	0.129 T	03R014	0.0946	0.087	0.126	0.071	0.129 T	03R014	0.0946	0.087	0.126
Smallmouth bass (fillet)																
Metals																
Cadmium	mg/kg-wet	23	2	9	0.001 J	0.001 J	06R024; 08R032	0.001	0.001 J	0.001 J	0.001 U	0.003 U	SB011E; SB03E; SB07W	0.001	0.001 U	0.0015 U
Lead	mg/kg-wet	23	19	83	0.007	0.518	SB03E	0.0471	0.013	0.102	0.002 U	0.518	SB03E	0.0392	0.011	0.055
Mercury	mg/kg-wet	18	18	100	0.0591 J	0.349 J	SB09W	0.171	0.174 J	0.261 J	0.0591 J	0.349 J	SB09W	0.171	0.174 J	0.261 J
Nickel	mg/kg-wet	23	23	100	0.004 J	0.224	05R006	0.0596	0.05 J	0.131 J	0.004 J	0.224	05R006	0.0596	0.05 J	0.131 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	18	18	100	0.0672 T	1.04 T	SB09W	0.315	0.152 J	0.931	0.0672 T	1.04 T	SB09W	0.315	0.152 J	0.931
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	23	7	30	0.003 J	0.011 JT	SB010E	0.00614	0.005 J	0.0104 J	0.003 J	1 U	03R014; 05R006; 06R024; 08R032; 09R006	0.113	0.0045 U	0.5 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	18	5	28	0.091 J	2.5	SB08W	1.1	0.48	2.44	0.081 U	2.5	SB08W	0.335	0.0405 U	2.25
Naphthalene	µg/kg-wet	18	18	100	0.52 J	11	SB08W	1.66	0.81 J	4.11	0.52 J	11	SB08W	1.66	0.81 J	4.11
Phenanthrene	µg/kg-wet	18	8	44	2.7	22	SB08W	7.56	4.8	18.5	0.36 U	22	SB08W	3.77	1.15 U	13.5
Total cPAHs	µg/kg-wet	18	9	50	0.17 JT	13 JT	SB08W	4.45	3.1 JT	12.2 J	0.081 UT	13 JT	SB08W	2.24	0.105 J	11.3 J
Total HPAHs	µg/kg-wet	18	11	61	0.92 JT	40 JT	SB08W	10.2	2.9 JT	34.5 J	0.42 UT	40 JT	SB08W	6.34	1.5	30.7 J
Total LPAHs	µg/kg-wet	18	18	100	0.58 JT	43 T	SB08W	7.84	2.85 J	24.3	0.58 JT	43 T	SB08W	7.84	2.85 J	24.3
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	18	0	0	--	--	--	--	--	--	7.3 U	7.3 U	SB010E; SB010W; SB011E; SB011W; SB02E; SB03E; SB03W; SB04E; SB04W; SB05W; SB06E; SB06W; SB07E; SB07W; SB08E; SB08W; SB09E; SB09W	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	23	18	78	0.24 J	0.876	SB07W	0.389	0.346 J	0.575	0.24 J	1.3 U	03R014	0.42	0.371 J	0.637
Phenols																
Pentachlorophenol	µg/kg-wet	18	0	0	--	--	--	--	--	--	30 U	30 U	SB010E; SB010W; SB011E; SB011W; SB02E; SB03E; SB03W; SB04E; SB04W; SB05W; SB06E; SB06W; SB07E; SB07W; SB08E; SB08W; SB09E; SB09W	15	15 U	15 U

Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Smallmouth bass (body without fillet)																
Metals																
Cadmium	mg/kg-wet	18	16	89	0.003 J	0.283	SB010E	0.0242	0.0055 J	0.0835	0.003 U	0.283	SB010E	0.0217	0.005 J	0.0569
Lead	mg/kg-wet	18	10	56	0.023	1640 JT	SB010E	165	0.1	906 J	0.013 U	1640 JT	SB010E	91.8	0.0273	254 J
Mercury	mg/kg-wet	18	18	100	0.0453	0.116	SB07E	0.0757	0.0724	0.106	0.0453	0.116	SB07E	0.0757	0.0724	0.106
Nickel	mg/kg-wet	18	10	56	0.104 JT	0.25	SB010E	0.201	0.209	0.241	0.09 U	0.25	SB010E	0.134	0.143 J	0.233
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	18	18	100	0.674 T	30 T	SB02E	5.92	4.82	14.8	0.674 T	30 T	SB02E	5.92	4.82	14.8
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	18	10	56	0.0252 J	0.0452 JT	SB06E	0.0337	0.0339 J	0.0446 J	0.0252 J	0.0452 JT	SB06E	0.0261	0.0256 J	0.044 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	18	0	0	--	--	--	--	--	--	0.33 U	3.3 U	SB09E	0.301	0.165 U	0.592 U
Naphthalene	µg/kg-wet	18	11	61	1.7 J	27	SB06W	5.37	2.3 J	18.5	1.6 U	27	SB06W	4.19	2 U	12.5
Phenanthrene	µg/kg-wet	18	17	94	4.6	65	SB06W	19.9	12	47.4	4.6	65	SB06W	19.2	11.5	46.3
Total cPAHs	µg/kg-wet	18	1	6	1.8 JT	1.8 JT	SB08W	1.8	1.8 JT	1.8 JT	0.33 UT	3.3 UT	SB09E	0.392	0.165 U	1.67 J
Total HPAHs	µg/kg-wet	18	6	33	6.6 T	87 JT	SB08W	30.8	21.5	73 J	0.4 UT	87 JT	SB08W	10.6	0.345 U	39.4 J
Total LPAHs	µg/kg-wet	18	18	100	5.2 JT	200 T	SB06W	46.6	32 J	115 J	5.2 JT	200 T	SB06W	46.6	32 J	115 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	18	0	0	--	--	--	--	--	--	7.3 U	7.3 U	SB010E; SB010W; SB011E; SB011W; SB02E; SB03E; SB03W; SB04E; SB04W; SB05W; SB06E; SB06W; SB07E; SB07W; SB08E; SB08W; SB09E; SB09W	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	18	18	100	2.11	5.98	SB07W	2.87	2.69	4.22	2.11	5.98	SB07W	2.87	2.69	4.22
Phenols																
Pentachlorophenol	µg/kg-wet	18	0	0	--	--	--	--	--	--	30 U	30 U	SB010E; SB010W; SB011E; SB011W; SB02E; SB03E; SB03W; SB04E; SB04W; SB05W; SB06E; SB06W; SB07E; SB07W; SB08E; SB08W; SB09E; SB09W	15	15 U	15 U
Smallmouth bass (whole body)																
Metals																
Cadmium	mg/kg-wet	14	10	71	0.002 J	0.024 J	06R024	0.0073	0.006 J	0.0173 J	0.002 U	0.024 J	06R024	0.00554	0.0035 J	0.0143 J
Lead	mg/kg-wet	14	14	100	0.0048 J	0.303 J	08R010	0.0423	0.00725 J	0.193 J	0.0048 J	0.303 J	08R010	0.0423	0.00725 J	0.193 J
Mercury	mg/kg-wet	14	14	100	0.052	0.114	04R023	0.0831	0.08	0.109	0.052	0.114	04R023	0.0831	0.08	0.109
Nickel	mg/kg-wet	14	7	50	0.07	0.2	04R023	0.127	0.13	0.188	0.02 U	0.2	04R023	0.0746	0.0525	0.174
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	14	14	100	5.12 T	14 T	08R010	8.41	7.17	13.4	5.12 T	14 T	08R010	8.41	7.17	13.4
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	14	0	0	--	--	--	--	--	--	1 UT	9.6 UT	04R023; 08R010	2.48	2 U	4.8 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	14	0	0	--	--	--	--	--	--	25 UT	33 UT	07R009; 08R010	15.4	15.5 U	16.5 U
Naphthalene	µg/kg-wet	14	2	14	51 T	86 T	07R009	68.5	68.5	84.3	30 UT	86 T	07R009	23.3	16 U	63.3
Phenanthrene	µg/kg-wet	14	2	14	49 T	85 T	07R009	67	67	83.2	25 UT	85 T	07R009	22.8	15.8 U	61.6
Total cPAHs	µg/kg-wet	14	0	0	--	--	--	--	--	--	25 UT	33 UT	07R009; 08R010	15.4	15.5 U	16.5 U
Total HPAHs	µg/kg-wet	14	1	7	75 T	75 T	04R023	75	75 T	75 T	25 UT	75 T	04R023	19.7	15.8 U	37
Total LPAHs	µg/kg-wet	14	7	50	31 JT	308 T	07R009	120	45 T	291	30 UT	308 T	07R009	67.9	23.5 J	272
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	14	0	0	--	--	--	--	--	--	250 U	330 U	07R009; 08R010	154	155 U	165 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	14	0	0	--	--	--	--	--	--	1 UT	6.4 UT	03R014; 04R023; 05R006; 07R009; 08R010; 08R032; 09R006	2.92	3.2 U	3.2 U
Phenols																
Pentachlorophenol	µg/kg-wet	14	0	0	--	--	--	--	--	--	130 UT	160 UT	06R024; 07R009; 08R010; 08R032; 09R006	76.4	77.5 U	80 U

Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Sturgeon (stomach contents)																
Metals																
Cadmium	mg/kg-wet	3	3	100	0.008 T	0.054	STWB03	0.033	0.037	0.0523	0.008 T	0.054	STWB03	0.033	0.037	0.0523
Lead	mg/kg-wet	3	3	100	0.103 T	1.5	STWB03	0.581	0.139	1.36	0.103 T	1.5	STWB03	0.581	0.139	1.36
Mercury	mg/kg-wet	3	3	100	0.0073 J	0.0119 J	STWB03	0.0102	0.0115 J	0.0119 J	0.0073 J	0.0119 J	STWB03	0.0102	0.0115 J	0.0119 J
Nickel	mg/kg-wet	3	3	100	0.267	2.33	STWB03	1.08	0.631 T	2.16	0.267	2.33	STWB03	1.08	0.631 T	2.16
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	1	1	100	0.0242 T	0.0242 T	STWB04	0.0242	0.0242 T	0.0242 T	0.0242 T	0.0242 T	STWB04	0.0242	0.0242 T	0.0242 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	1	0	0	--	--	--	--	--	--	0.0188 U	0.0188 U	STWB04	0.0094	0.0094 U	0.0094 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	3	2	67	2.2	210	STWB03	106	106	200	0.081 U	210	STWB03	70.7	2.2	189
Naphthalene	µg/kg-wet	3	1	33	260	260	STWB03	260	260	260	1.4 U	260	STWB03	87.2	0.75 U	234
Phenanthrene	µg/kg-wet	3	3	100	0.76	2300	STWB03	767	1.1	2070	0.76	2300	STWB03	767	1.1	2070
Total cPAHs	µg/kg-wet	3	2	67	19 T	2000 T	STWB03	1010	1010	1900	0.081 UT	2000 T	STWB03	673	19 T	1800
Total HPAHs	µg/kg-wet	3	3	100	0.98 JT	5100 T	STWB03	1710	35 T	4590	0.98 JT	5100 T	STWB03	1710	35 T	4590
Total LPAHs	µg/kg-wet	3	3	100	2.6 JT	3800 T	STWB03	1270	2.6 JT	3420 J	2.6 JT	3800 T	STWB03	1270	2.6 JT	3420 J
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	1	1	100	0.161 J	0.161 J	STWB04	0.161	0.161 J	0.161 J	0.161 J	0.161 J	STWB04	0.161	0.161 J	0.161 J
Sturgeon (fillet without skin)																
Metals																
Cadmium	mg/kg-wet	5	0	0	--	--	--	--	--	--	0.00975 U	0.0105 UT	RM 3.5-9.2	0.00506	0.0051 U	0.00523 U
Lead	mg/kg-wet	5	1	20	0.0165	0.0165	RM 3.5-9.2	0.0165	0.0165	0.0165	0.00975 U	0.0165	RM 3.5-9.2	0.00733	0.0051 U	0.0143
Mercury	mg/kg-wet	5	5	100	0.0963	0.322 T	RM 3.5-9.2	0.242	0.263	0.319	0.0963	0.322 T	RM 3.5-9.2	0.242	0.263	0.319
Nickel	mg/kg-wet	5	5	100	0.0351	1.65	RM 3.5-9.2	0.727	0.586 T	1.58	0.0351	1.65	RM 3.5-9.2	0.727	0.586 T	1.58
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	5	5	100	0.12 T	0.874 T	RM 3.5-9.2	0.501	0.559 T	0.822	0.12 T	0.874 T	RM 3.5-9.2	0.501	0.559 T	0.822
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	5	0	0	--	--	--	--	--	--	0.23 U	1 U	RM 3.5-9.2	0.4	0.455 UT	0.495 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	5	0	0	--	--	--	--	--	--	3.8 U	3.9 U	RM 3.5-9.2	1.92	1.9 UT	1.95 U
Naphthalene	µg/kg-wet	5	0	0	--	--	--	--	--	--	3.8 UT	4.9 U	RM 3.5-9.2	2.1	2.05 U	2.39 U
Phenanthrene	µg/kg-wet	5	0	0	--	--	--	--	--	--	3.8 U	5.8 U	RM 3.5-9.2	2.12	1.95 U	2.71 U
Total cPAHs	µg/kg-wet	5	0	0	--	--	--	--	--	--	15 UT	16 UT	RM 3.5-9.2	7.6	7.5 UT	7.9 U
Total HPAHs	µg/kg-wet	5	2	40	0.9 JT	2.5 JT	RM 3.5-9.2	1.7	1.7 J	2.42 J	0.9 JT	15 UT	RM 3.5-9.2	5.18	7.5 UT	7.5 U
Total LPAHs	µg/kg-wet	5	3	60	3.1 JT	23.1 T	RM 3.5-9.2	9.87	3.4 JT	21.1 J	3.1 JT	23.1 T	RM 3.5-9.2	6.72	3.1 JT	19.2 J
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	5	3	60	1.5 J	1.6 J	RM 3.5-9.2	1.57	1.6 J	1.6 J	1.5 J	3.9 U	RM 3.5-9.2	1.71	1.6 JT	1.94 U
Sturgeon (whole body)																
Metals																
Cadmium	mg/kg-wet	15	15	100	0.003 J	0.019 T	STWB04	0.0076	0.006	0.0155	0.003 J	0.019 T	STWB04	0.0076	0.006	0.0155
Lead	mg/kg-wet	15	15	100	0.007	0.024	STWB01	0.0138	0.012	0.0219	0.007	0.024	STWB01	0.0138	0.012	0.0219
Mercury	mg/kg-wet	15	15	100	0.034	0.14 T	STWB04	0.0545	0.046	0.0917	0.034	0.14 T	STWB04	0.0545	0.046	0.0917
Nickel	mg/kg-wet	15	1	7	0.461	0.461	STWB01	0.461	0.461	0.461	0.061 U	0.461	STWB01	0.0755	0.047 U	0.19
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	15	15	100	0.098 T	0.446 T	STWB04	0.18	0.168 T	0.284	0.098 T	0.446 T	STWB04	0.18	0.168 T	0.284
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	15	13	87	0.0123 J	0.0618 J	STWB02	0.0331	0.033 J	0.0544 J	0.0123 J	0.0618 J	STWB02	0.0303	0.0256 J	0.0532 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	15	0	0	--	--	--	--	--	--	0.081 U	0.081 U	STWB01; STWB02; STWB03; STWB04; STWB05	0.0405	0.0405 U	0.0405 U
Naphthalene	µg/kg-wet	15	8	53	4.1	14	STWB03	6.39	5.15	11.7	0.4 U	14	STWB03	3.81	4.1	9.38
Phenanthrene	µg/kg-wet	15	10	67	0.37 J	5.3	STWB03	1.13	0.665	3.5	0.36 U	5.3	STWB03	0.815	0.48 JT	2.5
Total cPAHs	µg/kg-wet	15	0	0	--	--	--	--	--	--	0.081 UT	0.081 UT	STWB01; STWB02; STWB03; STWB04; STWB05	0.0405	0.0405 UT	0.0405 U
Total HPAHs	µg/kg-wet	15	2	13	0.82 T	1.6 T	STWB03	1.21	1.21	1.56	0.098 UT	1.6 T	STWB03	0.204	0.049 UT	1.05
Total LPAHs	µg/kg-wet	15	15	100	1.1 T	59 T	STWB03	8.97	6.4 JT	27.5 J	1.1 T	59 T	STWB03	8.97	6.4 JT	27.5 J

Table D5.1-1. Summary Statistics for Other Contaminants in Fish Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	15	0	0	--	--	--	--	--	--	7.3 U	7.3 U	STWB01; STWB02; STWB03; STWB04; STWB05	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	15	15	100	0.911	2.38	STWB02	1.47	1.35	2.12	0.911	2.38	STWB02	1.47	1.35	2.12
Phenols																
Pentachlorophenol	µg/kg-wet	15	0	0	--	--	--	--	--	--	30 U	30 U	STWB01; STWB02; STWB03; STWB04; STWB05	15	15 U	15 U

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier and descriptor preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is not qualified. It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
HPAH - high molecular weight polycyclic aromatic hydrocarbon
LPAH - low molecular weight polycyclic aromatic hydrocarbon
ND - not detected
RM - river mile
PCB - polychlorinated biphenyl
TEQ - toxicity equivalence

Reason codes for qualifiers:
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

Reason codes for descriptors:
A - Total value based on limited number of analytes.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table D5.1-2. Summary Statistics for Other Contaminants in Invertebrate Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Clam (Corbicula spp. – body without shell)																
Metals																
Cadmium	mg/kg-wet	37	37	100	0.04 J	0.218	FC002	0.0873	0.076	0.157 J	0.04 J	0.218	FC002	0.0873	0.076	0.157 J
Lead	mg/kg-wet	37	37	100	0.036	0.316	07R006	0.0932	0.072	0.206	0.036	0.316	07R006	0.0932	0.072	0.206
Mercury	mg/kg-wet	34	34	100	0.005 JT	0.0263 J	CA11E	0.0113	0.0102 J	0.0222 J	0.005 JT	0.0263 J	CA11E	0.0113	0.0102 J	0.0222 J
Nickel	mg/kg-wet	37	37	100	0.151	0.485 J	FC030	0.3	0.303 T	0.445 J	0.151	0.485 J	FC030	0.3	0.303 T	0.445 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	37	37	100	0.497 T	5.32 T	FC0061	1.44	1.08 T	3.26	0.497 T	5.32 T	FC0061	1.44	1.08 T	3.26
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	40	32	80	0.0256 J	0.0837 J	FC017	0.0584	0.0644 J	0.0795 J	0.0234 U	1 U	06R002; 07R003; 07R006	0.0929	0.0644 J	0.5 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	38	33	87	0.78 J	490	FC015	36.5	4.6	220	0.17 U	490	FC015	33	4.65	120
Naphthalene	µg/kg-wet	38	4	11	2.6	33	FC015	11.9	6	29.4	0.97 UT	33 UT	06R002; FC015	3.28	0.95 U	16.1 U
Phenanthrene	µg/kg-wet	38	35	92	2.7	300	FC015	37	16	169	2.7	300	FC015	35.3	16	165
Total cPAHs	µg/kg-wet	38	36	95	5.7 T	2700 T	FC015	239	63.5 J	1030	5.7 T	2700 T	FC015	228	59 J	815
Total HPAHs	µg/kg-wet	38	38	100	17 T	4450 T	FC014	450	160 J	1570	17 T	4450 T	FC014	450	160 J	1570
Total LPAHs	µg/kg-wet	38	35	92	6.1 JT	542 T	FC015	62.5	30.5 T	261	6.1 JT	542 T	FC015	59.2	29.3	251
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	37	0	0	--	--	--	--	--	--	7.3 U	330 U	06R002	20.6	7 U	156 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	41	37	90	0.373	1.07	FC017	0.611	0.624	0.839 J	0.373	12 U	FC009	0.805	0.629	1.07
Phenols																
Pentachlorophenol	µg/kg-wet	10	0	0	--	--	--	--	--	--	30 U	160 UT	06R002; 07R003; 07R006	34.5	15 U	80 U
Clam (Corbicula spp. – depurated w/o shell)																
Metals																
Cadmium	mg/kg-wet	3	3	100	0.052 J	0.101 J	CA11E	0.081	0.09 J	0.0999 J	0.052 J	0.101 J	CA11E	0.081	0.09 J	0.0999 J
Lead	mg/kg-wet	3	3	100	0.033	0.058	CA10W	0.0483	0.054	0.0576	0.033	0.058	CA10W	0.0483	0.054	0.0576
Mercury	mg/kg-wet	2	2	100	0.0195 J	0.0223 J	CA02W	0.0209	0.0209 J	0.0222 J	0.0195 J	0.0223 J	CA02W	0.0209	0.0209 J	0.0222 J
Nickel	mg/kg-wet	3	3	100	0.179	0.204	CA10W	0.193	0.195	0.203	0.179	0.204	CA10W	0.193	0.195	0.203
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	3	3	100	0.283 T	0.856 T	CA02W	0.505	0.376 T	0.808	0.283 T	0.856 T	CA02W	0.505	0.376 T	0.808
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	3	2	67	0.0328 J	0.0367 J	CA10W	0.0348	0.0348 J	0.0365 J	0.0191 U	0.0367 J	CA10W	0.0264	0.0328 J	0.0363 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	3	1	33	0.43 J	0.43 J	CA11E	0.43	0.43 J	0.43 J	0.2 U	0.43 J	CA11E	0.212	0.105 U	0.398 J
Naphthalene	µg/kg-wet	3	0	0	--	--	--	--	--	--	1.6 U	3.3 U	CA10W	1.28	1.4 U	1.63 U
Phenanthrene	µg/kg-wet	3	3	100	4.2	25	CA02W	11.1	4.2	22.9	4.2	25	CA02W	11.1	4.2	22.9
Total cPAHs	µg/kg-wet	3	3	100	6.7 JT	26 JT	CA02W	13.3	7.1 T	24.1 J	6.7 JT	26 JT	CA02W	13.3	7.1 T	24.1 J
Total HPAHs	µg/kg-wet	3	3	100	22 T	180 JT	CA02W	75.3	24 JT	164 J	22 T	180 JT	CA02W	75.3	24 JT	164 J
Total LPAHs	µg/kg-wet	3	3	100	6.7 JT	41 JT	CA02W	18.6	8 JT	37.7 J	6.7 JT	41 JT	CA02W	18.6	8 JT	37.7 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	2	0	0	--	--	--	--	--	--	7.3 U	8.2 U	CA02W	3.88	3.88 U	4.08 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	3	3	100	0.428	0.663	CA10W	0.547	0.549	0.652	0.428	0.663	CA10W	0.547	0.549	0.652
Phenols																
Pentachlorophenol	µg/kg-wet	2	0	0	--	--	--	--	--	--	30 U	34 U	CA02W	16	16 U	16.9 U
Crayfish (whole body)																
Metals																
Cadmium	mg/kg-wet	32	32	100	0.007 J	0.036 J	05R003	0.0172	0.016 J	0.0295 J	0.007 J	0.036 J	05R003	0.0172	0.016 J	0.0295 J
Lead	mg/kg-wet	32	32	100	0.041 J	1.3 JT	04R002	0.144	0.0975 J	0.235 J	0.041 J	1.3 JT	04R002	0.144	0.0975 J	0.235 J
Mercury	mg/kg-wet	32	32	100	0.02	0.041	06R001	0.0287	0.0285	0.0391	0.02	0.041	06R001	0.0287	0.0285	0.0391
Nickel	mg/kg-wet	32	31	97	0.18	0.83	07R006	0.382	0.371	0.57 J	0.18	0.83	07R006	0.374	0.366 J	0.568 J

Table D5.1-2. Summary Statistics for Other Contaminants in Invertebrate Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	15	15	100	0.242 T	3.89 T	CR11E	1.13	0.676 T	3.35	0.242 T	3.89 T	CR11E	1.13	0.676 T	3.35
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	32	0	0	--	--	--	--	--	--	0.00212 U	2 U	07R003	0.438	0.5 U	0.5 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	32	5	16	0.22 JT	7.5	CR06W	1.76	0.28 J	6.11	0.22 JT	37 UT	07R004	14	16.5 U	16.5 U
Naphthalene	µg/kg-wet	32	5	16	0.47 JT	2.9 J	CR06W	1.02	0.6 J	2.44 J	0.47 JT	82 UT	07R004	22.7	16.5 U	35.7 U
Phenanthrene	µg/kg-wet	32	2	6	7.6	97 T	06R004	52.3	52.3	92.5	0.46 UT	97 T	06R004	18.3	16.5 U	43.8 U
Total cPAHs	µg/kg-wet	32	6	19	0.22 JT	170 JT	06R004	35.7	0.41 J	138 J	0.22 JT	170 JT	06R004	19.9	16.5 U	29.5
Total HPAHs	µg/kg-wet	32	8	25	0.22 JT	380 JT	06R004	90	38.3	307 J	0.22 JT	380 JT	06R004	41.2	16.5 U	128 J
Total LPAHs	µg/kg-wet	32	6	19	0.96 JT	97 T	06R004	21	2.45 J	78.3 J	0.96 JT	97 T	06R004	26.9	24.3 J	45.7 U
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	32	2	6	15 J	71 T	CR11E	43	43 J	68.2 J	7.3 U	370 U	07R004	143	165 U	165 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	32	5	16	0.0357 JT	0.0657 J	CR08W	0.0502	0.0509 J	0.0639 J	0.0357 JT	2 UT	07R003	0.445	0.5 U	0.5 U
Phenols																
Pentachlorophenol	µg/kg-wet	32	1	3	130 T	130 T	08R003	130	130 T	130 T	30 U	190 UT	07R004	75.3	85 U	89.5 U
Epibenthic invertebrates (whole body)																
Metals																
Cadmium	mg/kg-wet	2	2	100	0.0321	0.0366	MIT009	0.0344	0.0344	0.0364	0.0321	0.0366	MIT009	0.0344	0.0344	0.0364
Lead	mg/kg-wet	2	2	100	0.245 J	1.06 J	MIT009	0.653	0.653 J	1.02 J	0.245 J	1.06 J	MIT009	0.653	0.653 J	1.02 J
Nickel	mg/kg-wet	2	2	100	0.401	1.12	MIT009	0.761	0.761	1.08	0.401	1.12	MIT009	0.761	0.761	1.08
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	7	7	100	0.0652 T	0.52 T	MIT009	0.328	0.341 T	0.516	0.0652 T	0.52 T	MIT009	0.328	0.341 T	0.516
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	7	4	57	0.0111 J	0.0214 J	MIT356	0.0145	0.0127 J	0.0201 J	0.00458 U	0.0214 J	MIT356	0.0111	0.0111 J	0.0189 J
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	7	7	100	0.12	0.544	MIT356	0.297	0.264	0.484	0.12	0.544	MIT356	0.297	0.264	0.484
Lab-exposed clam (Corbicula fluminea – body without shell)																
Metals																
Cadmium	mg/kg-wet	34	34	100	0.0383 T	0.0666	BT023	0.0515	0.0496	0.0614	0.0383 T	0.0666	BT023	0.0515	0.0496	0.0614
Lead	mg/kg-wet	34	34	100	0.033	0.221	BT002	0.0586	0.05	0.101	0.033	0.221	BT002	0.0586	0.05	0.101
Mercury	mg/kg-wet	34	34	100	0.00705 T	0.0162	BT022	0.0104	0.0101	0.0125	0.00705 T	0.0162	BT022	0.0104	0.0101	0.0125
Nickel	mg/kg-wet	34	34	100	0.094 T	0.313 J	BT033	0.151	0.144 J	0.197 J	0.094 T	0.313 J	BT033	0.151	0.144 J	0.197 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	34	34	100	0.0701 T	1.56 T	BT017	0.465	0.388	1.11	0.0701 T	1.56 T	BT017	0.465	0.388	1.11
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	34	25	74	0.0319 J	0.109 J	BT017	0.0591	0.0519 J	0.0978 J	0.0307 U	0.109 J	BT017	0.0506	0.049 J	0.0978 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	34	32	94	0.46 J	33	BT012	2.44	0.655	8.81	0.12 U	33	BT012	2.3	0.64	8.23
Naphthalene	µg/kg-wet	34	1	3	5.1	5.1	BT014	5.1	5.1	5.1	0.33 U	5.1	BT014	0.535	0.365 U	0.6 U
Phenanthrene	µg/kg-wet	34	34	100	3.5	120	BT012	14.9	5.35	82.1	3.5	120	BT012	14.9	5.35	82.1
Total cPAHs	µg/kg-wet	34	34	100	2.1 JT	270 T	BT012	24.6	6.9 J	111 J	2.1 JT	270 T	BT012	24.6	6.9 J	111 J
Total HPAHs	µg/kg-wet	34	34	100	13.1 JT	1170 T	BT012	119	36.9 J	644 J	13.1 JT	1170 T	BT012	119	36.9 J	644 J
Total LPAHs	µg/kg-wet	34	34	100	5.07 JT	158 T	BT015	22.1	8.58 J	134	5.07 JT	158 T	BT015	22.1	8.58 J	134

Table D5.1-2. Summary Statistics for Other Contaminants in Invertebrate Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	34	0	0	--	--	--	--	--	--	14 UJ	14 UJ	BT001; BT002; BT004; BT005; BT0061; BT0062; BT007; BT008; BT009; BT010; BT011; BT012; BT013; BT014; BT015; BT016; BT017; BT018; BT019; BT020; BT021; BT022; BT023; BT024; BT025; BT026; BT0271; BT0272; BT028; BT029; BT030; BT031; BT032; BT033	7	7 U	7 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	34	33	97	0.0292 J	0.275	BT017	0.0631	0.048 J	0.108 J	0.0292 J	0.275	BT017	0.0621	0.0468 J	0.108 J
Phenols																
Pentachlorophenol	µg/kg-wet	17	0	0	--	--	--	--	--	--	31 U	31 U	BT001; BT002; BT004; BT005; BT0061; BT0062; BT009; BT010; BT011; BT012; BT014; BT015; BT016; BT018; BT019; BT023; BT033	15.5	15.5 U	15.5 U
Lab-exposed worm (Lumbriculus variegatus – whole body)																
Metals																
Cadmium	mg/kg-wet	34	34	100	0.0364	0.254	BT007	0.0689	0.0533 J	0.155 J	0.0364	0.254	BT007	0.0689	0.0533 J	0.155 J
Lead	mg/kg-wet	34	34	100	0.167	0.847 T	BT008	0.354	0.295	0.744	0.167	0.847 T	BT008	0.354	0.295	0.744
Mercury	mg/kg-wet	33	33	100	0.003 J	0.0105	BT016	0.00545	0.005 J	0.00946 J	0.003 J	0.0105	BT016	0.00545	0.005 J	0.00946 J
Nickel	mg/kg-wet	34	34	100	0.203	0.535	BT025	0.376	0.367	0.525	0.203	0.535	BT025	0.376	0.367	0.525
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	34	34	100	0.129 T	31.6 T	BT002	4.24	1.88	16.6	0.129 T	31.6 T	BT002	4.24	1.88	16.6
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	34	16	47	0.00666 J	0.021 J	BT004	0.0137	0.0137 J	0.0195 J	0.00666 J	0.215 U	BT028	0.0166	0.0152 U	0.0264 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	34	34	100	2.2	1500	BT014	107	16.5	600	2.2	1500	BT014	107	16.5	600
Naphthalene	µg/kg-wet	34	6	18	2.9	31	BT015	10.7	7.55	26	0.53 U	31	BT015	2.49	0.725 U	8.79
Phenanthrene	µg/kg-wet	34	34	100	4.1	2500	BT015	265	32	2200	4.1	2500	BT015	265	32	2200
Total cPAHs	µg/kg-wet	34	34	100	36 T	12000 T	BT014	1000	220	5340	36 T	12000 T	BT014	1000	220	5340
Total HPAHs	µg/kg-wet	34	34	100	70.7 T	33600 T	BT014	2780	549	16200	70.7 T	33600 T	BT014	2780	549	16200
Total LPAHs	µg/kg-wet	34	34	100	12.3 T	3760 T	BT015	422	63.1	3290	12.3 T	3760 T	BT015	422	63.1	3290
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	34	0	0	--	--	--	--	--	--	14 U	28 U	BT020; BT0272; BT030	7.62	7 U	14 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	34	34	100	0.242 J	2.69	BT017	0.644	0.508	1.16	0.242 J	2.69	BT017	0.644	0.508	1.16
Phenols																
Pentachlorophenol	µg/kg-wet	17	0	0	--	--	--	--	--	--	31 U	31 U	BT001; BT002; BT004; BT005; BT0061; BT0062; BT009; BT010; BT011; BT012; BT014; BT015; BT016; BT018; BT019; BT023; BT033	15.5	15.5 U	15.5 U
Mussel (body without shell)																
Metals																
Cadmium	mg/kg-wet	7	7	100	0.0905	0.188	FM006	0.123	0.108	0.174	0.0905	0.188	FM006	0.123	0.108	0.174
Lead	mg/kg-wet	7	7	100	0.0386	0.22	FM006	0.139	0.118	0.217	0.0386	0.22	FM006	0.139	0.118	0.217
Mercury	mg/kg-wet	7	7	100	0.0022 J	0.0061 J	FM021	0.00424	0.0048 J	0.00589 J	0.0022 J	0.0061 J	FM021	0.00424	0.0048 J	0.00589 J
Nickel	mg/kg-wet	7	7	100	0.308	0.712	FM021	0.456	0.41	0.652	0.308	0.712	FM021	0.456	0.41	0.652

Table D5.1-2. Summary Statistics for Other Contaminants in Invertebrate Tissue, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	7	7	100	0.0101 T	1.09 T	FM006	0.259	0.132 T	0.827	0.0101 T	1.09 T	FM006	0.259	0.132 T	0.827
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	7	1	14	0.007 J	0.007 J	FM006	0.007	0.007 J	0.007 J	0.003 UJ	0.062 UJ	FM033	0.0123	0.0147 UJ	0.0263 UJ
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	7	7	100	0.51 J	5.2 J	FM006	1.45	0.79 J	4 J	0.51 J	5.2 J	FM006	1.45	0.79 J	4 J
Naphthalene	µg/kg-wet	7	7	100	1.1 J	2.1 J	FM033	1.47	1.5 J	1.95 J	1.1 J	2.1 J	FM033	1.47	1.5 J	1.95 J
Phenanthrene	µg/kg-wet	7	7	100	1.4 J	8.4 J	FM006	3.66	2.9 J	7.2 J	1.4 J	8.4 J	FM006	3.66	2.9 J	7.2 J
Total cPAHs	µg/kg-wet	7	7	100	4.6 JT	63 JT	FM006	14.4	6.7 JT	46.9 J	4.6 JT	63 JT	FM006	14.4	6.7 JT	46.9 J
Total HPAHs	µg/kg-wet	7	7	100	13 JT	130 JT	FM006	35	19 JT	99.1 J	13 JT	130 JT	FM006	35	19 JT	99.1 J
Total LPAHs	µg/kg-wet	7	7	100	3 JT	14 JT	FM006	8.21	8.4 JT	13.1 J	3 JT	14 JT	FM006	8.21	8.4 JT	13.1 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	7	0	0	--	--	--	--	--	--	130 UJ	260 UJ	FM004; FM006; FM033	92.9	65 UJ	130 UJ
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	7	7	100	0.063 J	0.181 J	FM025	0.122	0.125 J	0.17 J	0.063 J	0.181 J	FM025	0.122	0.125 J	0.17 J
Phenols																
Pentachlorophenol	µg/kg-wet	7	0	0	--	--	--	--	--	--	20 UJ	40 UJ	FM004; FM006	14.2	10 UJ	20 UJ

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier and descriptor preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is not qualified. It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
HPAH - high molecular weight polycyclic aromatic hydrocarbon
LPAH - low molecular weight polycyclic aromatic hydrocarbon
ND - not detected
RM - river mile
PCB - polychlorinated biphenyl
TEQ - toxicity equivalence

Reason codes for qualifiers:
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

Reason codes for descriptors:
A - Total value based on limited number of analytes.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table D5.1-3. Summary Statistics for Other Contaminants in Fish Tissue, Downtown Reach (RM 11.8-15.3) and Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Brown bullhead (whole body)																
Metals																
Cadmium	mg/kg-wet	3	3	100	0.0045 JT	0.006	20R001; 28R001	0.0055	0.006	0.006	0.0045 JT	0.006	20R001; 28R001	0.0055	0.006	0.006
Lead	mg/kg-wet	3	3	100	0.015 T	0.021	20R001	0.0183	0.019	0.0208	0.015 T	0.021	20R001	0.0183	0.019	0.0208
Mercury	mg/kg-wet	3	3	100	0.054 T	0.094	20R001	0.0717	0.067	0.0913	0.054 T	0.094	20R001	0.0717	0.067	0.0913
Nickel	mg/kg-wet	3	3	100	0.19 T	0.82	28R001	0.427	0.27	0.765	0.19 T	0.82	28R001	0.427	0.27	0.765
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	3	3	100	0.487 T	1.23 T	20R001	0.811	0.715 T	1.18	0.487 T	1.23 T	20R001	0.811	0.715 T	1.18
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	3	0	0	--	--	--	--	--	--	1 U	1 U	20R001; 28R001	0.5	0.5 U	0.5 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001; 28R001	16.5	16.5 UT	16.5 U
Naphthalene	µg/kg-wet	3	0	0	--	--	--	--	--	--	33 UT	70 UT	28R001	22.7	16.5 UT	33.2 U
Phenanthrene	µg/kg-wet	3	0	0	--	--	--	--	--	--	33 UT	83 UT	28R001	24.8	16.5 UT	39 U
Total cPAHs	µg/kg-wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001; 28R001	16.5	16.5 UT	16.5 U
Total HPAHs	µg/kg-wet	3	0	0	--	--	--	--	--	--	33 UT	93 UT	28R001	26.5	16.5 UT	43.5 U
Total LPAHs	µg/kg-wet	3	0	0	--	--	--	--	--	--	33 UT	86 UT	28R001	25.3	16.5 UT	40.4 U
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	3	0	0	--	--	--	--	--	--	330 UJ	330 UJ	20R001; 28R001	165	165 UJ	165 UJ
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	3	0	0	--	--	--	--	--	--	1 UT	33 UT	20R001; 28R001	11.2	16.5 UT	16.5 U
Phenols																
Pentachlorophenol	µg/kg-wet	3	0	0	--	--	--	--	--	--	170 UT	170 UT	20R001; 28R001	85	85 UT	85 U
Chinook (stomach contents)																
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	1	1	100	0.316 T	0.316 T	T04	0.316	0.316 T	0.316 T	0.316 T	0.316 T	T04	0.316	0.316 T	0.316 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	1	0	0	--	--	--	--	--	--	0.0221 U	0.0221 U	T04	0.0111	0.0111 U	0.0111 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	1	1	100	1.07 J	1.07 J	T04	1.07	1.07 J	1.07 J	1.07 J	1.07 J	T04	1.07	1.07 J	1.07 J
Naphthalene	µg/kg-wet	1	0	0	--	--	--	--	--	--	11 U	11 U	T04	5.5	5.5 U	5.5 U
Phenanthrene	µg/kg-wet	1	1	100	23.5	23.5	T04	23.5	23.5	23.5	23.5	23.5	T04	23.5	23.5	23.5
Total cPAHs	µg/kg-wet	1	1	100	16 JT	16 JT	T04	16	16 JT	16 JT	16 JT	16 JT	T04	16	16 JT	16 JT
Total HPAHs	µg/kg-wet	1	1	100	59.4 JT	59.4 JT	T04	59.4	59.4 JT	59.4 JT	59.4 JT	59.4 JT	T04	59.4	59.4 JT	59.4 JT
Total LPAHs	µg/kg-wet	1	1	100	28 JT	28 JT	T04	28	28 JT	28 JT	28 JT	28 JT	T04	28	28 JT	28 JT
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	1	1	100	0.767	0.767	T04	0.767	0.767	0.767	0.767	0.767	T04	0.767	0.767	0.767
Chinook (fillet without skin)																
Metals																
Mercury	mg/kg-wet	3	3	100	0.0448	0.1	Clackamas Fish Hatchery	0.0812	0.0989	0.0999	0.0448	0.1	Clackamas Fish Hatchery	0.0812	0.0989	0.0999
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	3	3	100	0.0962 JT	0.181 T	Clackamas Fish Hatchery	0.149	0.17 JT	0.18 J	0.0962 JT	0.181 T	Clackamas Fish Hatchery	0.149	0.17 JT	0.18 J
Chinook (fillet)																
Metals																
Cadmium	mg/kg-wet	3	0	0	--	--	--	--	--	--	0.015 U	0.0159 U	Clackamas Fish Hatchery	0.00777	0.00785 U	0.00794 U
Lead	mg/kg-wet	3	0	0	--	--	--	--	--	--	0.015 U	0.0159 U	Clackamas Fish Hatchery	0.00777	0.00785 U	0.00794 U
Nickel	mg/kg-wet	3	0	0	--	--	--	--	--	--	0.045 U	0.0476 U	Clackamas Fish Hatchery	0.0233	0.0235 U	0.0238 U
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	3	3	100	0.133 JT	0.201 JT	Clackamas Fish Hatchery	0.171	0.179 T	0.199 J	0.133 JT	0.201 JT	Clackamas Fish Hatchery	0.171	0.179 T	0.199 J
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	3	0	0	--	--	--	--	--	--	0.91 U	0.92 U	Clackamas Fish Hatchery	0.457	0.455 U	0.46 U

Table D5.1-3. Summary Statistics for Other Contaminants in Fish Tissue, Downtown Reach (RM 11.8-15.3) and Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	3	0	0	--	--	--	--	--	--	3.8 U	4 U	Clackamas Fish Hatchery	1.93	1.9 U	1.99 U
Naphthalene	µg/kg-wet	3	0	0	--	--	--	--	--	--	3.8 U	4 U	Clackamas Fish Hatchery	1.93	1.9 U	1.99 U
Phenanthrene	µg/kg-wet	3	0	0	--	--	--	--	--	--	3.8 U	4.1 U	Clackamas Fish Hatchery	1.95	1.9 U	2.04 U
Total cPAHs	µg/kg-wet	3	0	0	--	--	--	--	--	--	15 UT	16 UT	Clackamas Fish Hatchery	7.67	7.5 UT	7.95 U
Total HPAHs	µg/kg-wet	3	0	0	--	--	--	--	--	--	15 UT	16 UT	Clackamas Fish Hatchery	7.67	7.5 UT	7.95 U
Total LPAHs	µg/kg-wet	3	2	67	1.8 JT	5.4 T	Clackamas Fish Hatchery	3.6	3.6 J	5.22 J	1.8 JT	5.4 T	Clackamas Fish Hatchery	3.03	1.9 UT	5.05
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	3	0	0	--	--	--	--	--	--	3.8 U	4 U	Clackamas Fish Hatchery	1.93	1.9 U	1.99 U
Chinook (whole body)																
Metals																
Cadmium	mg/kg-wet	8	4	50	0.005 J	0.0164	T04	0.0101	0.00944	0.0156	0.005 J	0.0169 U	Clackamas Fish Hatchery	0.00914	0.00825 U	0.0146
Lead	mg/kg-wet	8	0	0	--	--	--	--	--	--	0.003 UJ	0.0251 U	T04	0.00709	0.00805 U	0.0111 U
Mercury	mg/kg-wet	8	8	100	0.00935 J	0.0623	Clackamas Fish Hatchery	0.0344	0.0328	0.0613	0.00935 J	0.0623	Clackamas Fish Hatchery	0.0344	0.0328	0.0613
Nickel	mg/kg-wet	8	8	100	0.0676	0.409 JT	T04	0.219	0.233	0.371 J	0.0676	0.409 JT	T04	0.219	0.233	0.371 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	7	7	100	0.198 JT	0.508 T	T04	0.318	0.246 T	0.498	0.198 JT	0.508 T	T04	0.318	0.246 T	0.498
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	8	0	0	--	--	--	--	--	--	0.18 U	1 U	26R111	0.349	0.46 U	0.493 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	8	0	0	--	--	--	--	--	--	0.13 U	27 UT	26R111	2.68	1.93 U	9.46 U
Naphthalene	µg/kg-wet	8	1	12	3.8	3.8	T04	3.8	3.8	3.8	2.8 U	27 UT	26R111	3.49	1.95 U	10.1
Phenanthrene	µg/kg-wet	8	3	38	0.62	0.84	T04	0.717	0.69	0.825	0.62	27 UT	26R111	2.93	1.93 U	9.46 U
Total cPAHs	µg/kg-wet	8	3	38	0.21 JT	0.32 JT	T04	0.267	0.27 JT	0.315 J	0.21 JT	27 UT	26R111	5.66	7.5 U	11.6 U
Total HPAHs	µg/kg-wet	8	4	50	0.21 JT	1.37 JT	T04	0.725	0.66 J	1.31 J	0.21 JT	27 UT	26R111	4.99	4.44 J	11.6 U
Total LPAHs	µg/kg-wet	8	6	75	5.04 JT	9.77 JT	T04	6.24	5.46 J	8.95 J	3.9 UT	27 UT	26R111	6.61	5.46 J	12.2 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	4	3	75	200	240	T04	217	210	237	200	2000 U	26R111	413	225	886
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	8	6	75	0.57 J	2.6 JT	Clackamas Fish Hatchery	1.56	1.55 J	2.45 J	0.57 J	3.9 U	Clackamas Fish Hatchery	1.48	1.55 J	2.39 J
Phenols																
Pentachlorophenol	µg/kg-wet	4	0	0	--	--	--	--	--	--	64 U	140 UT	26R111	42.4	33.8 U	64.8 U
Lamprey Ammocoetes and Macropthalmia																
Metals																
Cadmium	mg/kg-wet	8	7	88	0.003 J	0.065	Willamette Falls	0.0373	0.051	0.0645	0.002 U	0.065	Willamette Falls	0.0327	0.0325	0.0644
Lead	mg/kg-wet	8	5	62	0.0303	0.129	Willamette Falls	0.0844	0.0847	0.122	0.0149 U	0.129	Willamette Falls	0.0557	0.0565	0.117
Mercury	mg/kg-wet	8	8	100	0.125	0.902	LT023c	0.343	0.214	0.828 J	0.125	0.902	LT023c	0.343	0.214	0.828 J
Nickel	mg/kg-wet	8	5	62	0.0547	0.268	LT023c	0.191	0.267	0.268	0.0442 U	0.268	LT023c	0.128	0.0754	0.268
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	8	8	100	0.655 T	0.971 T	Willamette Falls	0.833	0.837	0.968	0.655 T	0.971 T	Willamette Falls	0.833	0.837	0.968
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	8	3	38	0.0175 J	0.181 J	LT023b	0.0851	0.0569 J	0.169 J	0.0106 U	0.93 UJ	Willamette Falls	0.258	0.301 J	0.463 UJ
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	8	0	0	--	--	--	--	--	--	0.22 U	4.9 U	Willamette Falls	1.14	1.03 U	2.42 U
Naphthalene	µg/kg-wet	8	6	75	1.7 J	11	Willamette Falls	5.4	3.5	10.7	1.7 J	11	Willamette Falls	4.65	3.1	10.6
Phenanthrene	µg/kg-wet	8	6	75	2.4	8.2	Willamette Falls	5.33	5.45	7.8	2.4	20 U	Willamette Falls	5.54	5.45	9.37
Total cPAHs	µg/kg-wet	8	3	38	0.25 JT	2.5 JT	LT023c	1.17	0.75 JT	2.33 J	0.25 JT	54 UT	Willamette Falls	7.27	5.25 J	21.1 U
Total HPAHs	µg/kg-wet	8	6	75	5.9 JT	21 JT	LT023c	12.1	11 J	19.5 J	5.9 JT	21 JT	LT023c	11.5	9.8 J	18.9 J
Total LPAHs	µg/kg-wet	8	7	88	3.6 JT	48.1 JT	Willamette Falls	23.6	20 JT	45.9 J	3.6 JT	48.1 JT	Willamette Falls	21.5	18 J	45.6 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	4	0	0	--	--	--	--	--	--	7.3 U	7.3 U	LT023b; LT023c	3.65	3.65 U	3.65 U

Table D5.1-3. Summary Statistics for Other Contaminants in Fish Tissue, Downtown Reach (RM 11.8-15.3) and Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	8	8	100	1.92	11	Willamette Falls	6.22	6.51	10.4 J	1.92	11	Willamette Falls	6.22	6.51	10.4 J
Phenols																
Pentachlorophenol	µg/kg-wet	4	1	25	38 J	38 J	LT023c	38	38 J	38 J	30 U	38 J	LT023c	20.8	15 U	34.6 J
Sculpin (whole body)																
Metals																
Cadmium	mg/kg-wet	2	2	100	0.004 JT	0.005	SP12E	0.0045	0.0045 J	0.00495 J	0.004 JT	0.005	SP12E	0.0045	0.0045 J	0.00495 J
Lead	mg/kg-wet	2	2	100	0.0385 T	0.055	SP12E	0.0468	0.0468	0.0542	0.0385 T	0.055	SP12E	0.0468	0.0468	0.0542
Mercury	mg/kg-wet	2	2	100	0.0603	0.0742 T	SP12WA	0.0673	0.0673	0.0735	0.0603	0.0742 T	SP12WA	0.0673	0.0673	0.0735
Nickel	mg/kg-wet	2	2	100	0.153 T	0.309	SP12E	0.231	0.231	0.301	0.153 T	0.309	SP12E	0.231	0.231	0.301
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	2	2	100	0.194 T	0.404 T	SP12E	0.299	0.299	0.394	0.194 T	0.404 T	SP12E	0.299	0.299	0.394
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	2	1	50	0.0133 JT	0.0133 JT	SP12WA	0.0133	0.0133 JT	0.0133 JT	0.0133 JT	0.0139 U	SP12E	0.0101	0.0101 J	0.013 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	2	0	0	--	--	--	--	--	--	0.081 U	0.081 U	SP12E; SP12WA	0.0405	0.0405 U	0.0405 U
Naphthalene	µg/kg-wet	2	2	100	1.6	3 T	SP12WA	2.3	2.3	2.93	1.6	3 T	SP12WA	2.3	2.3	2.93
Phenanthrene	µg/kg-wet	2	2	100	1.8	5.8 T	SP12WA	3.8	3.8	5.6	1.8	5.8 T	SP12WA	3.8	3.8	5.6
Total cPAHs	µg/kg-wet	2	0	0	--	--	--	--	--	--	0.081 UT	0.081 UT	SP12E; SP12WA	0.0405	0.0405 U	0.0405 U
Total HPAHs	µg/kg-wet	2	1	50	6 T	6 T	SP12WA	6	6 T	6 T	0.098 UT	6 T	SP12WA	3.02	3.02	5.7
Total LPAHs	µg/kg-wet	2	2	100	9.2 JT	25 JT	SP12WA	17.1	17.1 J	24.2 J	9.2 JT	25 JT	SP12WA	17.1	17.1 J	24.2 J
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	2	0	0	--	--	--	--	--	--	7.3 U	7.3 U	SP12E; SP12WA	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	2	2	100	1.44	2.08 T	SP12WA	1.76	1.76	2.05	1.44	2.08 T	SP12WA	1.76	1.76	2.05
Phenols																
Pentachlorophenol	µg/kg-wet	2	0	0	--	--	--	--	--	--	30 U	30 U	SP12E; SP12WA	15	15 U	15 U
Smallmouth bass (whole body)																
Metals																
Cadmium	mg/kg-wet	6	2	33	0.004 J	0.011	28R001	0.0075	0.0075 J	0.0107 J	0.003 U	0.011	28R001	0.0035	0.0015 U	0.00925 J
Lead	mg/kg-wet	6	6	100	0.003 J	0.019	20R001	0.0085	0.0055 J	0.0178	0.003 J	0.019	20R001	0.0085	0.0055 J	0.0178
Mercury	mg/kg-wet	6	6	100	0.167	0.549	20R001	0.322	0.26	0.54	0.167	0.549	20R001	0.322	0.26	0.54
Nickel	mg/kg-wet	6	6	100	0.13	1.57	20R001	0.725	0.6	1.51	0.13	1.57	20R001	0.725	0.6	1.51
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-wet	6	6	100	1.76 T	5.44 T	20R001	3.15	2.42	5.22	1.76 T	5.44 T	20R001	3.15	2.42	5.22
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-wet	6	5	83	2.7 NJ	4.3 NJ	20R001	3.5	3.3 NJ	4.26 J	2.3 U	4.3 NJ	20R001	3.11	3.2 J	4.25 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001; 28R001	16.5	16.5 U	16.5 U
Naphthalene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	70 UT	28R001	25.8	25.8 U	35 U
Phenanthrene	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001; 28R001	16.5	16.5 U	16.5 U
Total cPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	70 UT	28R001	19.6	16.5 U	30.4 U
Total HPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	93 UT	28R001	21.5	16.5 U	39 U
Total LPAHs	µg/kg-wet	6	0	0	--	--	--	--	--	--	33 UT	73 UT	28R001	26.3	25.8 U	36.5 U
Phthalates																
Butylbenzyl phthalate	µg/kg-wet	6	1	17	790 J	790 J	20R001	790	790 J	790 J	330 UJ	790 J	20R001	269	165 UJ	634 J

Table D5.1-3. Summary Statistics for Other Contaminants in Fish Tissue, Downtown Reach (RM 11.8-15.3) and Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-wet	6	0	0	--	--	--	--	--	--	1.4 UT	2.3 UT	20R001	0.883	0.875 U	1.11 U
Phenols																
Pentachlorophenol	µg/kg-wet	6	0	0	--	--	--	--	--	--	170 UJT	170 UJT	20R001; 28R001	85	85 U	85 U

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier and descriptor preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is not qualified. It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
HPAH - high molecular weight polycyclic aromatic hydrocarbon
LPAH - low molecular weight polycyclic aromatic hydrocarbon
ND - not detected
RM - river mile
PCB - polychlorinated biphenyl
TEQ - toxicity equivalence

Reason codes for qualifiers:
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
Reason codes for descriptors:
A - Total value based on limited number of analytes.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table D5.1-4. Summary Statistics for Other Contaminants in Invertebrate Tissue, Downtown Reach (RM 11.8-15.3) and Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Clam (Corbicula spp. – body without shell)																
Metals																
Cadmium	mg/kg-Wet	2	2	100	0.035 J	0.053 J	CA12E	0.044	0.044 J	0.0521 J	0.035 J	0.053 J	CA12E	0.044	0.044 J	0.0521 J
Lead	mg/kg-Wet	2	2	100	0.07	0.184	CA12E	0.127	0.127	0.178	0.07	0.184	CA12E	0.127	0.127	0.178
Mercury	mg/kg-Wet	2	2	100	0.02 J	0.0245 J	CA12E	0.0223	0.0223 J	0.0243 J	0.02 J	0.0245 J	CA12E	0.0223	0.0223 J	0.0243 J
Nickel	mg/kg-Wet	2	2	100	0.218	0.25	CA12W	0.234	0.234	0.248	0.218	0.25	CA12W	0.234	0.234	0.248
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	2	2	100	0.458 T	0.799 T	CA12E	0.629	0.629	0.782	0.458 T	0.799 T	CA12E	0.629	0.629	0.782
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	2	2	100	0.018 J	0.0357 J	CA12E	0.0269	0.0269 J	0.0348 J	0.018 J	0.0357 J	CA12E	0.0269	0.0269 J	0.0348 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	2	1	50	0.32 J	0.32 J	CA12W	0.32	0.32 J	0.32 J	0.16 U	0.32 J	CA12W	0.2	0.2 J	0.308 J
Naphthalene	µg/kg-Wet	2	1	50	78	78	CA12E	78	78	78	1.7 U	78	CA12E	39.4	39.4	74.1
Phenanthrene	µg/kg-Wet	2	2	100	3.6	4.2	CA12E	3.9	3.9	4.17	3.6	4.2	CA12E	3.9	3.9	4.17
Total cPAHs	µg/kg-Wet	2	2	100	5.8 JT	8.9 T	CA12E	7.35	7.35 J	8.75 J	5.8 JT	8.9 T	CA12E	7.35	7.35 J	8.75 J
Total HPAHs	µg/kg-Wet	2	2	100	16 JT	26 T	CA12E	21	21 J	25.5 J	16 JT	26 T	CA12E	21	21 J	25.5 J
Total LPAHs	µg/kg-Wet	2	2	100	6.2 JT	87 JT	CA12E	46.6	46.6 J	83 J	6.2 JT	87 JT	CA12E	46.6	46.6 J	83 J
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	2	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CA12E; CA12W	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	2	2	100	0.671	0.784	CA12E	0.728	0.728	0.778	0.671	0.784	CA12E	0.728	0.728	0.778
Phenols																
Pentachlorophenol	µg/kg-Wet	2	0	0	--	--	--	--	--	--	30 U	30 U	CA12E; CA12W	15	15 U	15 U
Clam (Corbicula spp. – depurated w/o shell)																
Metals																
Cadmium	mg/kg-Wet	1	1	100	0.058 J	0.058 J	CA12E	0.058	0.058 J	0.058 J	0.058 J	0.058 J	CA12E	0.058	0.058 J	0.058 J
Lead	mg/kg-Wet	1	1	100	0.114	0.114	CA12E	0.114	0.114	0.114	0.114	0.114	CA12E	0.114	0.114	0.114
Mercury	mg/kg-Wet	1	1	100	0.0223 J	0.0223 J	CA12E	0.0223	0.0223 J	0.0223 J	0.0223 J	0.0223 J	CA12E	0.0223	0.0223 J	0.0223 J
Nickel	mg/kg-Wet	1	1	100	0.194	0.194	CA12E	0.194	0.194	0.194	0.194	0.194	CA12E	0.194	0.194	0.194
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	1	1	100	0.521 T	0.521 T	CA12E	0.521	0.521 T	0.521 T	0.521 T	0.521 T	CA12E	0.521	0.521 T	0.521 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	1	1	100	0.0224 J	0.0224 J	CA12E	0.0224	0.0224 J	0.0224 J	0.0224 J	0.0224 J	CA12E	0.0224	0.0224 J	0.0224 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	0.31 J	0.31 J	CA12E	0.31	0.31 J	0.31 J	0.31 J	0.31 J	CA12E	0.31	0.31 J	0.31 J
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	2.3 U	2.3 U	CA12E	1.15	1.15 U	1.15 U
Phenanthrene	µg/kg-Wet	1	1	100	2.6	2.6	CA12E	2.6	2.6	2.6	2.6	2.6	CA12E	2.6	2.6	2.6
Total cPAHs	µg/kg-Wet	1	1	100	6.2 JT	6.2 JT	CA12E	6.2	6.2 JT	6.2 JT	6.2 JT	6.2 JT	CA12E	6.2	6.2 JT	6.2 JT
Total HPAHs	µg/kg-Wet	1	1	100	18 JT	18 JT	CA12E	18	18 JT	18 JT	18 JT	18 JT	CA12E	18	18 JT	18 JT
Total LPAHs	µg/kg-Wet	1	1	100	4.6 JT	4.6 JT	CA12E	4.6	4.6 JT	4.6 JT	4.6 JT	4.6 JT	CA12E	4.6	4.6 JT	4.6 JT
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CA12E	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.548	0.548	CA12E	0.548	0.548	0.548	0.548	0.548	CA12E	0.548	0.548	0.548
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	30 U	30 U	CA12E	15	15 U	15 U
Crayfish (whole body)																
Metals																
Cadmium	mg/kg-Wet	2	2	100	0.01	0.011	CR12E	0.0105	0.0105	0.011	0.01	0.011	CR12E	0.0105	0.0105	0.011
Lead	mg/kg-Wet	2	2	100	0.079	0.135	CR12E	0.107	0.107	0.132	0.079	0.135	CR12E	0.107	0.107	0.132
Mercury	mg/kg-Wet	2	2	100	0.0268	0.0268	CR12E; CR12W	0.0268	0.0268	0.0268	0.0268	0.0268	CR12E; CR12W	0.0268	0.0268	0.0268
Nickel	mg/kg-Wet	2	2	100	0.271 J	0.317	CR12E	0.294	0.294 J	0.315 J	0.271 J	0.317	CR12E	0.294	0.294 J	0.315 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	2	2	100	0.193 T	0.477 T	CR12E	0.335	0.335	0.463	0.193 T	0.477 T	CR12E	0.335	0.335	0.463
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	2	0	0	--	--	--	--	--	--	0.00156 U	0.0113 U	CR12W	0.00322	0.00322 U	0.00541 U

Table D5.1-4. Summary Statistics for Other Contaminants in Invertebrate Tissue, Downtown Reach (RM 11.8-15.3) and Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	2	2	100	0.14 J	0.3 J	CR12E	0.22	0.22 J	0.292 J	0.14 J	0.3 J	CR12E	0.22	0.22 J	0.292 J
Naphthalene	µg/kg-Wet	2	2	100	0.52 J	0.54 J	CR12W	0.53	0.53 J	0.539 J	0.52 J	0.54 J	CR12W	0.53	0.53 J	0.539 J
Phenanthrene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	0.71 U	1.3 U	CR12W	0.503	0.503 U	0.635 U
Total cPAHs	µg/kg-Wet	2	2	100	0.14 JT	0.87 JT	CR12E	0.505	0.505 J	0.834 J	0.14 JT	0.87 JT	CR12E	0.505	0.505 J	0.834 J
Total HPAHs	µg/kg-Wet	2	2	100	0.14 JT	0.87 JT	CR12E	0.505	0.505 J	0.834 J	0.14 JT	0.87 JT	CR12E	0.505	0.505 J	0.834 J
Total LPAHs	µg/kg-Wet	2	2	100	0.8 JT	1.1 JT	CR12W	0.95	0.95 J	1.09 J	0.8 JT	1.1 JT	CR12W	0.95	0.95 J	1.09 J
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	2	1	50	27 J	27 J	CR12E	27	27 J	27 J	7.3 U	27 J	CR12E	15.3	15.3 J	25.8 J
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	2	2	100	0.0847 J	0.0911 J	CR12W	0.0879	0.0879 J	0.0908 J	0.0847 J	0.0911 J	CR12W	0.0879	0.0879 J	0.0908 J
Phenols																
Pentachlorophenol	µg/kg-Wet	2	0	0	--	--	--	--	--	--	30 U	30 U	CR12E; CR12W	15	15 U	15 U

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier and descriptor preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is not qualified. It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
HPAH - high molecular weight polycyclic aromatic hydrocarbon
LPAH - low molecular weight polycyclic aromatic hydrocarbon
ND - not detected
RM - river mile
PCB - polychlorinated biphenyl
TEQ - toxicity equivalence

Reason codes for qualifiers:
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

Reason codes for descriptors:
A - Total value based on limited number of analytes.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table D5.1-5. Summary Statistics for Other Contaminants in Fish Tissue, Downstream Reach (RM 0 – 1.9 and Multnomah Channel).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Carp (fillet)																
Metals																
Cadmium	mg/kg-Wet	3	2	67	0.005 J	0.005 J	CP0004	0.005	0.005 J	0.005 J	0.003 U	0.005 J	CP0004	0.00383	0.005 J	0.005 J
Lead	mg/kg-Wet	3	3	100	0.0461	0.053	CP0004	0.0489	0.0476	0.0525	0.0461	0.053	CP0004	0.0489	0.0476	0.0525
Mercury	mg/kg-Wet	3	3	100	0.0615	0.0747	CP0004	0.066	0.0619	0.0734	0.0615	0.0747	CP0004	0.066	0.0619	0.0734
Nickel	mg/kg-Wet	3	3	100	0.039 J	0.078	CP0004	0.0573	0.055 J	0.0757 J	0.039 J	0.078	CP0004	0.0573	0.055 J	0.0757 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	3	3	100	0.435 T	0.562 T	CP0004	0.49	0.473 T	0.553	0.435 T	0.562 T	CP0004	0.49	0.473 T	0.553
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	3	2	67	0.0203 J	0.0308 J	CP0004	0.0256	0.0256 J	0.0303 J	0.0196 U	0.0308 J	CP0004	0.0203	0.0203 J	0.0298 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	0.081 U	0.081 U	CP0004	0.0405	0.0405 U	0.0405 U
Naphthalene	µg/kg-Wet	3	1	33	2.6	2.6	CP0004	2.6	2.6	2.6	1.8 U	2.6	CP0004	1.52	1.05 U	2.45
Phenanthrene	µg/kg-Wet	3	2	67	4.9	7.5	CP0004	6.2	6.2	7.37	4.4 U	7.5	CP0004	4.87	4.9	7.24
Total cPAHs	µg/kg-Wet	3	1	33	0.98 JT	0.98 JT	CP0004	0.98	0.98 JT	0.98 JT	0.081 UT	0.98 JT	CP0004	0.354	0.0405 UT	0.886 J
Total HPAHs	µg/kg-Wet	3	3	100	6.2 T	7.9 T	CP0004	6.93	6.7 JT	7.78 J	6.2 T	7.9 T	CP0004	6.93	6.7 JT	7.78 J
Total LPAHs	µg/kg-Wet	3	3	100	22 T	35 T	CP0004	30.7	35 T	35	22 T	35 T	CP0004	30.7	35 T	35
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	3	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CP0004	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	3	3	100	1.5	1.95	CP0004	1.78	1.9	1.95	1.5	1.95	CP0004	1.78	1.9	1.95
Phenols																
Pentachlorophenol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	30 U	30 U	CP0004	15	15 U	15 U
Carp (body without fillet)																
Metals																
Cadmium	mg/kg-Wet	3	3	100	0.045	0.089	CP0004	0.0717	0.081	0.0882	0.045	0.089	CP0004	0.0717	0.081	0.0882
Lead	mg/kg-Wet	3	3	100	0.116	0.152	CP0004	0.128	0.117	0.149	0.116	0.152	CP0004	0.128	0.117	0.149
Mercury	mg/kg-Wet	3	3	100	0.0418	0.0509	CP0004	0.047	0.0484	0.0507	0.0418	0.0509	CP0004	0.047	0.0484	0.0507
Nickel	mg/kg-Wet	3	3	100	0.383	0.807	CP0004	0.611	0.644	0.791	0.383	0.807	CP0004	0.611	0.644	0.791
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	3	3	100	0.614 T	4.14 T	CP0004	1.81	0.684 T	3.79	0.614 T	4.14 T	CP0004	1.81	0.684 T	3.79
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	3	1	33	0.0295 J	0.0295 J	CP0004	0.0295	0.0295 J	0.0295 J	0.0295 J	0.0351 U	CP0004	0.021	0.0176 U	0.0283 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	0.41 U	1.7 U	CP0004	0.487	0.405 U	0.806 U
Naphthalene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	4 U	8 UJ	CP0004	2.83	2.5 U	3.85 UJ
Phenanthrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	3.9 U	16 U	CP0004	4.97	4.95 U	7.7 U
Total cPAHs	µg/kg-Wet	3	0	0	--	--	--	--	--	--	0.41 UT	1.7 UT	CP0004	0.487	0.405 UT	0.806 U
Total HPAHs	µg/kg-Wet	3	1	33	12 T	12 T	CP0004	12	12 T	12 T	0.98 UT	12 T	CP0004	5.35	3.55 UT	11.2
Total LPAHs	µg/kg-Wet	3	3	100	27 JT	50 T	CP0004	36.7	33 JT	48.3 J	27 JT	50 T	CP0004	36.7	33 JT	48.3 J
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	3	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CP0004	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	3	3	100	2.18	2.62	CP0004	2.46	2.57	2.62	2.18	2.62	CP0004	2.46	2.57	2.62
Phenols																
Pentachlorophenol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	30 U	30 U	CP0004	15	15 U	15 U
Sculpin (whole body)																
Metals																
Cadmium	mg/kg-Wet	2	2	100	0.007	0.009	SP01E	0.008	0.008	0.0089	0.007	0.009	SP01E	0.008	0.008	0.0089
Lead	mg/kg-Wet	2	2	100	0.026	0.043	SP01E	0.0345	0.0345	0.0422	0.026	0.043	SP01E	0.0345	0.0345	0.0422
Mercury	mg/kg-Wet	2	2	100	0.0326	0.0364	SP01E	0.0345	0.0345	0.0362	0.0326	0.0364	SP01E	0.0345	0.0345	0.0362
Nickel	mg/kg-Wet	2	2	100	0.353	0.371	SP01E	0.362	0.362	0.37	0.353	0.371	SP01E	0.362	0.362	0.37
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	2	2	100	0.278 T	0.332 T	SP01E	0.305	0.305	0.329	0.278 T	0.332 T	SP01E	0.305	0.305	0.329
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	2	1	50	0.0202 J	0.0202 J	SP01W	0.0202	0.0202 J	0.0202 J	0.00834 U	0.0202 J	SP01W	0.0122	0.0122 J	0.0194 J

Table D5.1-5. Summary Statistics for Other Contaminants in Fish Tissue, Downstream Reach (RM 0 – 1.9 and Multnomah Channel).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	0.081 U	0.081 U	SP01E; SP01W	0.0405	0.0405 U	0.0405 U
Naphthalene	µg/kg-Wet	2	2	100	1.3	1.7	SP01E	1.5	1.5	1.68	1.3	1.7	SP01E	1.5	1.5	1.68
Phenanthrene	µg/kg-Wet	2	2	100	2.1	3.7	SP01E	2.9	2.9	3.62	2.1	3.7	SP01E	2.9	2.9	3.62
Total cPAHs	µg/kg-Wet	2	0	0	--	--	--	--	--	--	0.081 UT	0.081 UT	SP01E; SP01W	0.0405	0.0405 U	0.0405 U
Total HPAHs	µg/kg-Wet	2	2	100	3 T	4.4 T	SP01W	3.7	3.7	4.33	3 T	4.4 T	SP01W	3.7	3.7	4.33
Total LPAHs	µg/kg-Wet	2	2	100	8.4 T	15 T	SP01E	11.7	11.7	14.7	8.4 T	15 T	SP01E	11.7	11.7	14.7
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	2	0	0	--	--	--	--	--	--	7.3 U	7.3 U	SP01E; SP01W	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	2	2	100	0.691	1.05	SP01W	0.871	0.871	1.03	0.691	1.05	SP01W	0.871	0.871	1.03
Phenols																
Pentachlorophenol	µg/kg-Wet	2	0	0	--	--	--	--	--	--	30 U	30 U	SP01E; SP01W	15	15 U	15 U

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier and descriptor preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is not qualified. It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
HPAH - high molecular weight polycyclic aromatic hydrocarbon
LPAH - low molecular weight polycyclic aromatic hydrocarbon
ND - not detected
RM - river mile
PCB - polychlorinated biphenyl
TEQ - toxicity equivalence

Reason codes for qualifiers:
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

Reason codes for descriptors:
A - Total value based on limited number of analytes.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

Table D5.1-6. Summary Statistics for Other Contaminants in Invertebrate Tissue, Downstream Reach (RM 0 – 1.9 and Multnomah Channel).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Clam (Corbicula spp. – body without shell)																
Metals																
Cadmium	mg/kg-Wet	2	2	100	0.104	0.106 JT	CA01E	0.105	0.105 J	0.106 J	0.104	0.106 JT	CA01E	0.105	0.105 J	0.106 J
Lead	mg/kg-Wet	2	2	100	0.024	0.0373 T	CA01E	0.0307	0.0307	0.0366	0.024	0.0373 T	CA01E	0.0307	0.0307	0.0366
Mercury	mg/kg-Wet	2	2	100	0.008 J	0.0123 JT	CA01E	0.0102	0.0102 J	0.0121 J	0.008 J	0.0123 JT	CA01E	0.0102	0.0102 J	0.0121 J
Nickel	mg/kg-Wet	2	2	100	0.178 T	0.257 J	FC003	0.218	0.218 J	0.253 J	0.178 T	0.257 J	FC003	0.218	0.218 J	0.253 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	2	2	100	0.63 T	1.36 T	CA01E	0.995	0.995	1.32	0.63 T	1.36 T	CA01E	0.995	0.995	1.32
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	2	2	100	0.0363 JT	0.0545 J	FC003	0.0454	0.0454 J	0.0536 J	0.0363 JT	0.0545 J	FC003	0.0454	0.0454 J	0.0536 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	2	2	100	0.88 JT	13	FC003	6.94	6.94 J	12.4 J	0.88 JT	13	FC003	6.94	6.94 J	12.4 J
Naphthalene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	1.1 UT	1.2 U	FC003	0.575	0.575 U	0.598 U
Phenanthrene	µg/kg-Wet	2	2	100	8.5 T	59	FC003	33.8	33.8	56.5	8.5 T	59	FC003	33.8	33.8	56.5
Total cPAHs	µg/kg-Wet	2	2	100	21 JT	160 T	FC003	90.5	90.5 J	153 J	21 JT	160 T	FC003	90.5	90.5 J	153 J
Total HPAHs	µg/kg-Wet	2	2	100	80 JT	467 T	FC003	274	274 J	448 J	80 JT	467 T	FC003	274	274 J	448 J
Total LPAHs	µg/kg-Wet	2	2	100	14 JT	84.1 T	FC003	49.1	49.1 J	80.6 J	14 JT	84.1 T	FC003	49.1	49.1 J	80.6 J
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	2	0	0	--	--	--	--	--	--	7.3 UT	14 U	FC003	5.33	5.33 U	6.83 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	2	2	100	0.435	0.577 T	CA01E	0.506	0.506	0.57	0.435	0.577 T	CA01E	0.506	0.506	0.57
Phenols																
Pentachlorophenol	µg/kg-Wet	1	1	100	30 JT	30 JT	CA01E	30	30 JT	30 JT	30 JT	30 JT	CA01E	30	30 JT	30 JT
Clam (Corbicula spp. – depurated w/o shell)																
Metals																
Cadmium	mg/kg-Wet	1	1	100	0.104 J	0.104 J	CA01E	0.104	0.104 J	0.104 J	0.104 J	0.104 J	CA01E	0.104	0.104 J	0.104 J
Lead	mg/kg-Wet	1	1	100	0.023	0.023	CA01E	0.023	0.023	0.023	0.023	0.023	CA01E	0.023	0.023	0.023
Mercury	mg/kg-Wet	1	1	100	0.0156 J	0.0156 J	CA01E	0.0156	0.0156 J	0.0156 J	0.0156 J	0.0156 J	CA01E	0.0156	0.0156 J	0.0156 J
Nickel	mg/kg-Wet	1	1	100	0.121	0.121	CA01E	0.121	0.121	0.121	0.121	0.121	CA01E	0.121	0.121	0.121
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	1	1	100	1.2 T	1.2 T	CA01E	1.2	1.2 T	1.2 T	1.2 T	1.2 T	CA01E	1.2	1.2 T	1.2 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	1	1	100	0.0293 J	0.0293 J	CA01E	0.0293	0.0293 J	0.0293 J	0.0293 J	0.0293 J	CA01E	0.0293	0.0293 J	0.0293 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	0.43 J	0.43 J	CA01E	0.43	0.43 J	0.43 J	0.43 J	0.43 J	CA01E	0.43	0.43 J	0.43 J
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1.8 U	1.8 U	CA01E	0.9	0.9 U	0.9 U
Phenanthrene	µg/kg-Wet	1	1	100	7.6	7.6	CA01E	7.6	7.6	7.6	7.6	7.6	CA01E	7.6	7.6	7.6
Total cPAHs	µg/kg-Wet	1	1	100	14 JT	14 JT	CA01E	14	14 JT	14 JT	14 JT	14 JT	CA01E	14	14 JT	14 JT
Total HPAHs	µg/kg-Wet	1	1	100	64 JT	64 JT	CA01E	64	64 JT	64 JT	64 JT	64 JT	CA01E	64	64 JT	64 JT
Total LPAHs	µg/kg-Wet	1	1	100	13 JT	13 JT	CA01E	13	13 JT	13 JT	13 JT	13 JT	CA01E	13	13 JT	13 JT
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CA01E	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.482	0.482	CA01E	0.482	0.482	0.482	0.482	0.482	CA01E	0.482	0.482	0.482
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	30 U	30 U	CA01E	15	15 U	15 U
Crayfish (whole body)																
Metals																
Cadmium	mg/kg-Wet	2	2	100	0.0175 T	0.024	CR01EA	0.0208	0.0208	0.0237	0.0175 T	0.024	CR01EA	0.0208	0.0208	0.0237
Lead	mg/kg-Wet	2	2	100	0.0455 T	0.047	CR01EA	0.0463	0.0463	0.0469	0.0455 T	0.047	CR01EA	0.0463	0.0463	0.0469
Mercury	mg/kg-Wet	2	2	100	0.0189	0.0209 T	CR01W	0.0199	0.0199	0.0208	0.0189	0.0209 T	CR01W	0.0199	0.0199	0.0208
Nickel	mg/kg-Wet	2	2	100	0.236 J	0.341 T	CR01W	0.289	0.289 J	0.336 J	0.236 J	0.341 T	CR01W	0.289	0.289 J	0.336 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	2	2	100	0.172 T	0.313 JT	CR01EA	0.243	0.243 J	0.306 J	0.172 T	0.313 JT	CR01EA	0.243	0.243 J	0.306 J

Table D5.1-6. Summary Statistics for Other Contaminants in Invertebrate Tissue, Downstream Reach (RM 0 – 1.9 and Multnomah Channel).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	2	0	0	--	--	--	--	--	--	0.0111 U	0.0115 U	CR01EA	0.00565	0.00565 U	0.00574 U
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	2	2	100	0.12 J	0.32 J	CR01EA	0.22	0.22 J	0.31 J	0.12 J	0.32 J	CR01EA	0.22	0.22 J	0.31 J
Naphthalene	µg/kg-Wet	2	2	100	0.61 J	0.64 J	CR01EA	0.625	0.625 J	0.639 J	0.61 J	0.64 J	CR01EA	0.625	0.625 J	0.639 J
Phenanthrene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	0.74 U	1.9 U	CR01EA	0.66	0.66 U	0.921 U
Total cPAHs	µg/kg-Wet	2	2	100	0.12 JT	0.32 JT	CR01EA	0.22	0.22 J	0.31 J	0.12 JT	0.32 JT	CR01EA	0.22	0.22 J	0.31 J
Total HPAHs	µg/kg-Wet	2	2	100	0.12 JT	0.32 JT	CR01EA	0.22	0.22 J	0.31 J	0.12 JT	0.32 JT	CR01EA	0.22	0.22 J	0.31 J
Total LPAHs	µg/kg-Wet	2	2	100	0.87 JT	3.2 JT	CR01EA	2.04	2.04 J	3.08 J	0.87 JT	3.2 JT	CR01EA	2.04	2.04 J	3.08 J
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	2	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CR01EA; CR01W	3.65	3.65 U	3.65 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	2	2	100	0.0357 J	0.0492 J	CR01W	0.0425	0.0425 J	0.0485 J	0.0357 J	0.0492 J	CR01W	0.0425	0.0425 J	0.0485 J
Phenols																
Pentachlorophenol	µg/kg-Wet	2	0	0	--	--	--	--	--	--	30 UJ	30 UJ	CR01EA; CR01W	15	15 UJ	15 UJ
Lab-exposed clam (Corbicula fluminea – body without shell)																
Metals																
Cadmium	mg/kg-Wet	1	1	100	0.0497	0.0497	BT003	0.0497	0.0497	0.0497	0.0497	0.0497	BT003	0.0497	0.0497	0.0497
Lead	mg/kg-Wet	1	1	100	0.043	0.043	BT003	0.043	0.043	0.043	0.043	0.043	BT003	0.043	0.043	0.043
Mercury	mg/kg-Wet	1	1	100	0.0091	0.0091	BT003	0.0091	0.0091	0.0091	0.0091	0.0091	BT003	0.0091	0.0091	0.0091
Nickel	mg/kg-Wet	1	1	100	0.159 J	0.159 J	BT003	0.159	0.159 J	0.159 J	0.159 J	0.159 J	BT003	0.159	0.159 J	0.159 J
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	1	1	100	0.261 T	0.261 T	BT003	0.261	0.261 T	0.261 T	0.261 T	0.261 T	BT003	0.261	0.261 T	0.261 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	1	1	100	0.0314 J	0.0314 J	BT003	0.0314	0.0314 J	0.0314 J	0.0314 J	0.0314 J	BT003	0.0314	0.0314 J	0.0314 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	0.57	0.57	BT003	0.57	0.57	0.57	0.57	0.57	BT003	0.57	0.57	0.57
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1.2 U	1.2 U	BT003	0.6	0.6 U	0.6 U
Phenanthrene	µg/kg-Wet	1	1	100	3.9	3.9	BT003	3.9	3.9	3.9	3.9	3.9	BT003	3.9	3.9	3.9
Total cPAHs	µg/kg-Wet	1	1	100	5.6 JT	5.6 JT	BT003	5.6	5.6 JT	5.6 JT	5.6 JT	5.6 JT	BT003	5.6	5.6 JT	5.6 JT
Total HPAHs	µg/kg-Wet	1	1	100	20.6 JT	20.6 JT	BT003	20.6	20.6 JT	20.6 JT	20.6 JT	20.6 JT	BT003	20.6	20.6 JT	20.6 JT
Total LPAHs	µg/kg-Wet	1	1	100	6.85 JT	6.85 JT	BT003	6.85	6.85 JT	6.85 JT	6.85 JT	6.85 JT	BT003	6.85	6.85 JT	6.85 JT
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	14 U	14 U	BT003	7	7 U	7 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.0399 J	0.0399 J	BT003	0.0399	0.0399 J	0.0399 J	0.0399 J	0.0399 J	BT003	0.0399	0.0399 J	0.0399 J
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	31 U	31 U	BT003	15.5	15.5 U	15.5 U
Lab-exposed worm (Lumbriculus variegatus – whole body)																
Metals																
Cadmium	mg/kg-Wet	1	1	100	0.087 J	0.087 J	BT003	0.087	0.087 J	0.087 J	0.087 J	0.087 J	BT003	0.087	0.087 J	0.087 J
Lead	mg/kg-Wet	1	1	100	0.201	0.201	BT003	0.201	0.201	0.201	0.201	0.201	BT003	0.201	0.201	0.201
Mercury	mg/kg-Wet	1	1	100	0.0034	0.0034	BT003	0.0034	0.0034	0.0034	0.0034	0.0034	BT003	0.0034	0.0034	0.0034
Nickel	mg/kg-Wet	1	1	100	0.399	0.399	BT003	0.399	0.399	0.399	0.399	0.399	BT003	0.399	0.399	0.399
PCB TEQ																
Total PCB TEQ (ND = 0)	pg/g-Wet	1	1	100	0.621 T	0.621 T	BT003	0.621	0.621 T	0.621 T	0.621 T	0.621 T	BT003	0.621	0.621 T	0.621 T
Pesticides																
gamma-Hexachlorocyclohexane (Lindane)	µg/kg-Wet	1	1	100	0.012 J	0.012 J	BT003	0.012	0.012 J	0.012 J	0.012 J	0.012 J	BT003	0.012	0.012 J	0.012 J
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	24	24	BT003	24	24	24	24	24	BT003	24	24	24
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.46 U	0.46 U	BT003	0.23	0.23 U	0.23 U
Phenanthrene	µg/kg-Wet	1	1	100	25	25	BT003	25	25	25	25	25	BT003	25	25	25
Total cPAHs	µg/kg-Wet	1	1	100	260 T	260 T	BT003	260	260 T	260 T	260 T	260 T	BT003	260	260 T	260 T
Total HPAHs	µg/kg-Wet	1	1	100	475 T	475 T	BT003	475	475 T	475 T	475 T	475 T	BT003	475	475 T	475 T
Total LPAHs	µg/kg-Wet	1	1	100	41.4 JT	41.4 JT	BT003	41.4	41.4 JT	41.4 JT	41.4 JT	41.4 JT	BT003	41.4	41.4 JT	41.4 JT

Table D5.1-6. Summary Statistics for Other Contaminants in Invertebrate Tissue, Downstream Reach (RM 0 – 1.9 and Multnomah Channel).

					Detected Concentrations						Detected and Not Detected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location(s)**	**Mean**	**Median[b]**	**95th Percentile[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location(s)**	**Mean (half DL)**	**Median (half DL)[b]**	**95th Percentile (half DL)[b]**
Phthalates																
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	14 U	14 U	BT003	7	7 U	7 U
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.537	0.537	BT003	0.537	0.537	0.537	0.537	0.537	BT003	0.537	0.537	0.537
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	31 U	31 U	BT003	15.5	15.5 U	15.5 U

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier and descriptor preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is not qualified. It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
HPAH - high molecular weight polycyclic aromatic hydrocarbon
LPAH - low molecular weight polycyclic aromatic hydrocarbon
ND - not detected
RM - river mile
PCB - polychlorinated biphenyl
TEQ - toxicity equivalence

Reason codes for qualifiers:
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

Reason codes for descriptors:
A - Total value based on limited number of analytes.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.