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Table 5-1. Periphyton Tissue t-Test Comparisons
Tennessee Valley Authority Kingston, Tennessee

Analyte	t Value	Pr > t*	FOD
Aluminum	-0.33	0.625	100%
Antimony	0.95	0.185	100%
Arsenic	1.51	**0.085**	100%
Barium	0.09	0.465	100%
Beryllium	0.38	0.356	100%
Boron	0.45	0.331	100%
Cadmium	-0.45	0.666	80%
Chromium	-0.13	0.551	100%
Cobalt	-0.29	0.611	100%
Copper	1.5	**0.086**	100%
Iron	-0.55	0.702	100%
Lead	-0.2	0.578	100%
Manganese	0.02	0.490	100%
Mercury	-1.32	0.888	90%
Molybdenum	-0.19	0.572	80%
Nickel	-0.17	0.566	100%
Selenium	0.09	0.464	90%
Silver	-1.09	0.846	30%
Strontium	1.5	**0.086**	100%
Vanadium	0.34	0.371	100%
Zinc	-0.21	0.579	100%

One-sided t-tests: Testing if downstream, combined Emory and Clinch River Reaches, are greater than their combined reference reaches.
FOD = Frequency of detection.
Constituents with FOD < 30% were excluded from the t-test.
Bold values significant at p<0.1.

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Table 5-2. Maximum Concentrations and Hazard Quotients in Seasonally-Exposed Sediment, Emory River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	ER_A		ER_B		ER_C		ER_Ref	
			Maximum Detection	HQ	Maximum Detection	HQ	Maximum Detection	HQ	Maximum Detection	HQ
Aluminum	mg/kg	--	76500	--	39400	--	27100	--	14800	--
Antimony	mg/kg	--	1.8	--	2.26	--	ND	--	ND	--
Arsenic	mg/kg	18	32.3	**2**	62.4	**3**	5.17	**4**	5.4	0.3
Barium	mg/kg	--	245	--	478	--	447	--	90.4	--
Beryllium	mg/kg	--	2.19	--	3.52	--	1.09	--	0.769	--
Boron	mg/kg	--	88	--	51.8	--	10.3	--	ND	--
Cadmium	mg/kg	32	ND	--	ND	--	ND	--	ND	--
Chromium	mg/kg	--	86	--	42.4	--	24.3	--	13.8	--
Cobalt	mg/kg	13	46.6	**4**	38.1	**3**	20.4	**2**	10.5	0.8
Copper	mg/kg	70	31.7	0.45	47.1	0.7	13.2	0.2	6.83	0.1
Hex. Chromium	mg/kg	--	1.2	--	0.45	--	ND	--	0.37	--
Lead	mg/kg	120	126	1	79.5	0.7	14	0.1	10.4	0.09
Manganese	mg/kg	220	2910	**13**	4120	**19**	2940	**13**	689	**3**
Mercury	mg/kg	--	0.13	--	0.12	--	ND	--	ND	--
Molybdenum	mg/kg	--	ND	--	ND	--	ND	--	ND	--
Nickel	mg/kg	38	40.6	1	54.7	1	22.4	0.6	14.7	0.4
Selenium	mg/kg	0.52	3.05	**6**	3.64	**7**	ND	--	ND	--
Silver	mg/kg	560	ND	--	ND	--	ND	--	ND	--
Strontium	mg/kg	--	149	--	321	--	19.9	--	16.3	--
Thallium	mg/kg	--	ND	--	ND	--	ND	--	ND	--
Vanadium	mg/kg	--	80.1	--	78.6	--	36.6	--	26.3	--
Zinc	mg/kg	160	132	0.8	113	0.7	84.8	0.5	54.1	0.3

-- = No screening value available.
ER = Emory River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-3. Maximum Concentrations and Hazard Quotients in Seasonally-Exposed Sediment, Clinch River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	CR_A		CR_B	
			Maximum Detection	HQ	Maximum Detection	HQ
Aluminum	mg/kg	--	143000	--	59400	--
Antimony	mg/kg	--	2.52	--	1.73	--
Arsenic	mg/kg	18	63.4	**4**	82.6	**5**
Barium	mg/kg	--	190	--	216	--
Beryllium	mg/kg	--	4.39	--	1.7	--
Boron	mg/kg	--	60.5	--	45.7	--
Cadmium	mg/kg	32	ND	--	ND	--
Chromium	mg/kg	--	125	--	71.3	--
Cobalt	mg/kg	13	18	1	23.8	**2**
Copper	mg/kg	70	90.4	1	46.8	0.7
Hex. Chromium	mg/kg	--	0.83	--	0.84	--
Lead	mg/kg	120	102	0.9	86.7	0.7
Manganese	mg/kg	220	1700	**8**	3540	**16**
Mercury	mg/kg	--	0.39	--	1	--
Molybdenum	mg/kg	--	ND	--	ND	--
Nickel	mg/kg	38	135	**4**	36.9	1
Selenium	mg/kg	0.52	ND	--	1.77	**3**
Silver	mg/kg	560	ND	--	ND	--
Strontium	mg/kg	--	43.6	--	42.1	--
Thallium	mg/kg	--	ND	--	3.11	--
Vanadium	mg/kg	--	193	--	63.5	--
Zinc	mg/kg	160	460	**3**	194	1

-- = No screening value available.
CR = Clinch River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-4. Mean Concentrations and Hazard Quotients in Seasonally-Exposed Sediment, Emory River

Tennessee Valley Authority **Kingston, Tennessee**

Constituent	Units	Eco-SSL	ER_A		ER_B		ER_C		ER_Ref	
			Mean[1]	HQ	Mean[1]	HQ	Mean[1]	HQ	Mean[1]	HQ
Aluminum	mg/kg	--	29850	--	17600	--	9164	--	8594	--
Antimony	mg/kg	--	1.52	--	1.44	--	1.38	--	1.39	--
Arsenic	mg/kg	18	14.3	0.8	15.2	0.8	2.51	**4**	2.97	0.2
Barium	mg/kg	--	142	--	125	--	92.5	--	45.4	--
Beryllium	mg/kg	--	1.20	--	1.08	--	0.66	--	0.58	--
Boron	mg/kg	--	23.3	--	14.7	--	6.38	--	5.57	--
Cadmium	mg/kg	32	0.14	--	0.14	--	0.14	--	0.14	--
Chromium	mg/kg	--	38.8	--	22.4	--	9.96	--	9.01	--
Cobalt	mg/kg	13	18.8	1	13.7	1	7.14	0.5	5.7	0.4
Copper	mg/kg	70	17.6	0.3	16.5	0.2	5.08	0.07	5.46	0.08
Hex. Chromium	mg/kg	--	0.70	--	0.54	--	0.59	--	0.99	--
Lead	mg/kg	120	27.6	0.2	21.4	0.2	6.69	0.06	7.07	0.06
Manganese	mg/kg	220	956	**4**	826	**4**	557	**3**	315	1
Mercury	mg/kg	--	0.07	--	0.07	--	0.06	--	0.06	--
Molybdenum	mg/kg	--	5.66	--	5.52	--	5.52	--	5.57	--
Nickel	mg/kg	38	19.8	0.5	19.1	0.5	8.56	0.2	7.73	0.2
Selenium	mg/kg	0.52	1.63	**3**	1.53	**3**	1.38	--	1.39	--
Silver	mg/kg	560	0.71	--	0.69	--	0.69	--	0.70	--
Strontium	mg/kg	--	39.87	--	43.3	--	8.13	--	8.05	--
Thallium	mg/kg	--	1.42	--	1.38	--	1.38	--	1.39	--
Vanadium	mg/kg	--	46.9	--	31.5	--	13.1	--	14.4	--
Zinc	mg/kg	160	59	0.4	47	0.3	32.4	0.2	32.4	0.2

[1] Mean calculated using full reporting limit if not detected.
-- = No screening value available.
ER = Emory River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-5. Mean Concentrations and Hazard Quotients in Seasonally-Exposed Sediment, Clinch River

Tennessee Valley Authority **Kingston, Tennessee**

Constituent	Units	Eco-SSL	CR_A		CR_B	
			Mean[1]	HQ	Mean[1]	HQ
Aluminum	mg/kg	--	44081	--	27144	--
Antimony	mg/kg	--	1.47	--	1.48	--
Arsenic	mg/kg	18	19.2	1	18.1	1
Barium	mg/kg	--	110	--	113	--
Beryllium	mg/kg	--	1.18	--	0.84	--
Boron	mg/kg	--	42.7	--	19.2	--
Cadmium	mg/kg	32	0.14	--	0.14	--
Chromium	mg/kg	--	50.2	--	39.7	--
Cobalt	mg/kg	13	11	0.8	14.7	**1**
Copper	mg/kg	70	24	0.3	16.4	0.2
Hex. Chromium	mg/kg	--	0.46	--	0.44	--
Lead	mg/kg	120	32.8	0.3	28.5	0.2
Manganese	mg/kg	220	666	**3**	1183	**5**
Mercury	mg/kg	--	0.15	--	0.27	--
Molybdenum	mg/kg	--	5.54	--	5.75	--
Nickel	mg/kg	38	26.8	0.7	15.3	0.4
Selenium	mg/kg	0.52	1.39	--	1.47	**3**
Silver	mg/kg	560	0.69	--	0.72	--
Strontium	mg/kg	--	21.5	--	17.3	--
Thallium	mg/kg	--	1.39	--	1.62	--
Vanadium	mg/kg	--	60.5	--	42.7	--
Zinc	mg/kg	160	123	0.8	66.8	0.4

[1] Mean calculated using full reporting limit if not detected.
-- = No screening value available.
CR = Clinch River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-6. Maximum Concentrations and Hazard Quotients in Submerged Sediment, Emory River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	ER_A		ER_B		ER_C		ER_Ref	
			Maximum Detection	HQ	Maximum Detection	HQ	Maximum Detection	HQ	Maximum Detection	HQ
Aluminum	mg/kg	--	25600	--	30600	--	38800	--	29300	--
Antimony	mg/kg	--	ND	--	3.44	--	ND	--	ND	--
Arsenic	mg/kg	18	32.2	**2**	89.5	**5**	76.9	**4**	6.33	0.35
Barium	mg/kg	--	291	--	398	--	305	--	273	--
Beryllium	mg/kg	--	2.48	--	3.8	--	2.86	--	1.57	--
Boron	mg/kg	--	27.9	--	52.6	--	40.2	--	10.5	--
Cadmium	mg/kg	32	ND	--	ND	--	ND	--	ND	--
Chromium	mg/kg	--	33.2	--	43	--	39.5	--	30.2	--
Cobalt	mg/kg	13	21.6	**2**	22.7	**2**	21.6	**2**	37.2	**3**
Copper	mg/kg	70	36	0.51	52.3	0.75	49	0.70	13	0.19
Hex. Chromium	mg/kg	--	ND	--	0.36	--	ND	--	ND	--
Lead	mg/kg	120	23.3	0.19	28.4	0.24	29	0.24	22.2	0.19
Manganese	mg/kg	220	971	**4**	1260	**6**	660	**3**	450	**2**
Mercury	mg/kg	--	0.24	--	0.16	--	0.1	--	0.055	--
Molybdenum	mg/kg	--	ND	--	ND	--	ND	--	ND	--
Nickel	mg/kg	38	35.5	0.93	42.3	1	35	0.92	30.8	0.81
Selenium	mg/kg	0.52	3.34	**6**	4.59	**9**	5.16	**10**	ND	--
Silver	mg/kg	560	ND	--	ND	--	ND	--	ND	--
Strontium	mg/kg	--	170	--	256	--	202	--	22.7	--
Thallium	mg/kg	--	ND	--	2.82	--	ND	--	ND	--
Vanadium	mg/kg	--	63.1	--	88.2	--	75.8	--	41.6	--
Zinc	mg/kg	160	86.6	0.54	78.8	0.49	111	0.69	73.3	0.46

-- = No screening value available.
ER = Emory River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-7. Maximum Concentrations and Hazard Quotients in Submerged Sediment, Clinch River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	CR_A		CR_B		CR_Ref	
			Maximum Detection	HQ	Maximum Detection	HQ	Maximum Detection	HQ
Aluminum	mg/kg	--	44200	--	38300	--	11900	--
Antimony	mg/kg	--	ND	--	1.46	--	ND	--
Arsenic	mg/kg	18	27.8	**2**	37.8	**2**	9.16	**4**
Barium	mg/kg	--	320	--	417	--	88	--
Beryllium	mg/kg	--	2.73	--	3.43	--	0.69	--
Boron	mg/kg	--	106	--	56	--	15	--
Cadmium	mg/kg	32	ND	--	ND	--	ND	--
Chromium	mg/kg	--	50.8	--	56.5	--	27.9	--
Cobalt	mg/kg	13	23.2	**2**	23.7	**2**	11.7	0.9
Copper	mg/kg	70	62.4	0.9	46.4	0.7	15.5	0.2
Hex. Chromium	mg/kg	--	ND	--	ND	--	ND	--
Lead	mg/kg	120	31	0.3	25.7	0.2	19.2	0.2
Manganese	mg/kg	220	2180	**10**	1570	**7**	1160	**5**
Mercury	mg/kg	--	1.3	--	1.3	--	5	--
Molybdenum	mg/kg	--	ND	--	ND	--	ND	--
Nickel	mg/kg	38	39.3	1	43.1	1	19.4	0.5
Selenium	mg/kg	0.52	3.01	**6**	3.5	**7**	ND	--
Silver	mg/kg	560	ND	--	ND	--	ND	--
Strontium	mg/kg	--	160	--	231	--	17.6	--
Thallium	mg/kg	--	ND	--	ND	--	ND	--
Vanadium	mg/kg	--	81.2	--	89.9	--	21.3	--
Zinc	mg/kg	160	130	0.8	103	0.6	67.9	0.4

-- = No screening value available.
CR = Clinch River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-8. Maximum Concentrations and Hazard Quotients in Submerged Sediment, Tennessee River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	TR_A		TR_B		TR_Ref	
			Maximum Detection	HQ	Maximum Detection	HQ	Maximum Detection	HQ
Aluminum	mg/kg	--	59500	--	44000	--	56100	--
Antimony	mg/kg	--	ND	--	1.5	--	ND	--
Arsenic	mg/kg	18	16.2	0.9	20.2	1	10.9	**4**
Barium	mg/kg	--	328	--	373	--	466	--
Beryllium	mg/kg	--	2.19	--	2.16	--	1.59	--
Boron	mg/kg	--	42.2	--	25.5	--	27.3	--
Cadmium	mg/kg	32	ND	--	ND	--	ND	--
Chromium	mg/kg	--	51	--	37.7	--	51.1	--
Cobalt	mg/kg	13	25.2	**2**	19.5	**2**	19.7	**2**
Copper	mg/kg	70	43.6	0.6	38	0.5	13.5	0.2
Hex. Chromium	mg/kg	--	ND	--	ND	--	ND	--
Lead	mg/kg	120	43.9	0.4	30.6	0.3	28.4	0.2
Manganese	mg/kg	220	2430	**11**	1990	**9**	3660	**17**
Mercury	mg/kg	--	0.55	--	0.54	--	0.066	--
Molybdenum	mg/kg	--	ND	--	ND	--	ND	--
Nickel	mg/kg	38	34.8	0.9	28.8	0.8	18.1	0.5
Selenium	mg/kg	0.52	ND	--	2.16	**4**	ND	--
Silver	mg/kg	560	ND	--	ND	--	ND	--
Strontium	mg/kg	--	ND	--	ND	--	ND	--
Thallium	mg/kg	--	ND	--	ND	--	ND	--
Vanadium	mg/kg	--	81.6	--	61.9	--	75.9	--
Zinc	mg/kg	160	207	1	144	0.9	110	0.7

-- = No screening value available.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
TR = Tennessee River.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-9. Mean Concentrations and Hazard Quotients in Submerged Sediment, Emory River
Tennessee Valley Authority **Kingston, Tennessee**

Constituent	Units	Eco-SSL	ER_A		ER_B		ER_C		ER_Ref	
			Mean[1]	HQ	Mean[1]	HQ	Mean[1]	HQ	Mean[1]	HQ
Aluminum	mg/kg	--	15746.67	--	13791.11	--	11697	--	11547.50	--
Antimony	mg/kg	--	1.81	--	1.74	--	1.62	--	1.54	--
Arsenic	mg/kg	18	25	1	22.9	1	10.8	**4**	3.38	0.2
Barium	mg/kg	--	236.25	--	161.11	--	84.60	--	104.28	--
Beryllium	mg/kg	--	1.79	--	1.52	--	0.91	--	0.85	--
Boron	mg/kg	--	20.79	--	17.16	--	12.01	--	7.15	--
Cadmium	mg/kg	32	0.18	--	0.15	--	0.16	--	0.15	--
Chromium	mg/kg	--	22.36	--	18.39	--	13.3	--	12.9	--
Cobalt	mg/kg	13	15.5	1	11.1	0.9	7.89	0.6	13.9	1
Copper	mg/kg	70	26.1	0.4	20.6	0.3	10.3	0.1	7.16	0.1
Hex. Chromium	mg/kg	--	0.79	--	0.60	--	2.50	--	1	--
Lead	mg/kg	120	15.3	0.1	13.9	0.1	9.91	0.08	11	0.09
Manganese	mg/kg	220	444	**2**	319	1	273	1	233	1
Mercury	mg/kg	--	0.121	--	0.0773	--	0.0585	--	0.0503	--
Molybdenum	mg/kg	--	7.25	--	5.92	--	6.48	--	6.17	--
Nickel	mg/kg	38	25.6	0.7	19.1	0.5	12.6	0.3	14	0.4
Selenium	mg/kg	0.52	2.58	**5**	2.13	**4**	2.04	**4**	1.54	--
Silver	mg/kg	560	0.91	--	0.74	--	0.81	--	0.77	--
Strontium	mg/kg	--	128.48	--	88.08	--	30.82	--	10.68	--
Thallium	mg/kg	--	1.81	--	1.56	--	1.62	--	1.54	--
Vanadium	mg/kg	--	45.14	--	36.68	--	21.67	--	16.73	--
Zinc	mg/kg	160	56	0.4	45.8	0.3	39.4	0.2	41.6	0.3

[1] Mean calculated using full reporting limit if not detected.
-- = No screening value available.
ER = Emory River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

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Table 5-10. Mean Concentrations and Hazard Quotients in Submerged Sediment, Clinch River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	CR_A		CR_B		CR_Ref	
			Mean[1]	HQ	Mean[1]	HQ	Mean[1]	HQ
Aluminum	mg/kg	--	25383	--	24983	--	11333	--
Antimony	mg/kg	--	1.89	--	1.83	--	1.51	--
Arsenic	mg/kg	18	17.3	1	20	1	6.37	**4**
Barium	mg/kg	--	234	--	225	--	73.77	--
Beryllium	mg/kg	--	1.84	--	1.83	--	0.63	--
Boron	mg/kg	--	38.93	--	32.07	--	12.57	--
Cadmium	mg/kg	32	0.19	--	0.18	--	0.15	--
Chromium	mg/kg	--	29.8	--	31.9	--	20.5	--
Cobalt	mg/kg	13	17.1	1	16.5	1	10.3	0.8
Copper	mg/kg	70	37	0.5	28.60	0.4	11	0.2
Hex. Chromium	mg/kg	--	0.47	--	0.39	--	0.32	--
Lead	mg/kg	120	22	0.2	19.6	0.2	14.7	0.1
Manganese	mg/kg	220	1190	**5**	871	**4**	1060	**5**
Mercury	mg/kg	--	0.583	--	0.431	--	2.03	--
Molybdenum	mg/kg	--	7.58	--	7.31	--	6.02	--
Nickel	mg/kg	38	27.4	0.7	26.60	0.7	13.6	0.4
Selenium	mg/kg	0.52	2.15	**4**	2.12	**4**	1.51	--
Silver	mg/kg	560	0.95	--	0.91	--	0.75	--
Strontium	mg/kg		128	--	100	--	13.1	--
Thallium	mg/kg	--	1.89	--	1.83	--	1.51	--
Vanadium	mg/kg	--	50.44	--	51.4	--	17.83	--
Zinc	mg/kg	160	90.4	0.6	74.9	0.5	57.5	0.4

[1] Mean calculated using full reporting limit if not detected.
-- = No screening value available.
CR = Clinch River.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
Ref = Reference.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.

ARCADIS

Table 5-11. Mean Concentrations and Hazard Quotients in Submerged Sediment, Tennessee River
Tennessee Valley Authority Kingston, Tennessee

Constituent	Units	Eco-SSL	TR_A		TR_B		TR_Ref	
			Mean[1]	HQ	Mean[1]	HQ	Mean[1]	HQ
Aluminum	mg/kg	--	42740	--	32625	--	32433	--
Antimony	mg/kg	--	2.27	--	1.91	--	1.48	--
Arsenic	mg/kg	18	12.1	0.7	15.2	0.8	6.46	**4**
Barium	mg/kg	--	252	--	272	--	247	--
Beryllium	mg/kg	--	1.62	--	1.9	--	0.95	--
Boron	mg/kg	--	28.65	--	21.05	--	15.42	--
Cadmium	mg/kg	32	0.23	--	0.19	--	0.15	--
Chromium	mg/kg	--	39.4	--	33.4	--	29.9	--
Cobalt	mg/kg	13	19	1	17.1	1	13.4	1
Copper	mg/kg	70	32.5	0.5	28.6	0.4	10.5	0.2
Hex. Chromium	mg/kg	--	0.58	--	0.38	--	0.32	--
Lead	mg/kg	120	32.9	0.3	24.3	0.2	19.5	0.2
Manganese	mg/kg	220	2013	**9**	1187	**5**	1876	**9**
Mercury	mg/kg	--	0.388	--	0.316	--	0.0613	--
Molybdenum	mg/kg	--	9.11	--	7.44	--	5.9	--
Nickel	mg/kg	38	26.8	0.7	25.7	0.7	13	0.3
Selenium	mg/kg	0.52	2.27	--	2.13	**4**	1.48	--
Silver	mg/kg	560	1.14	--	0.93	--	0.74	--
Strontium	mg/kg	--	NA	--	NA	--	NA	--
Thallium	mg/kg	--	2.27	--	1.86	--	1.48	--
Vanadium	mg/kg	--	61.25	--	56.7	--	44	--
Zinc	mg/kg	160	160	1	101	0.6	88.7	0.6

[1] Mean calculated using full reporting limit if not detected.
-- = No screening value available.
Eco-SSL = Ecological Soil Screening Levels (USEPA 2005).
HQ = Hazard quotient.
mg/kg = Milligrams per kilogram.
ND = Not detected.
Ref = Reference.
TR = Tennessee River.
Shaded cells indicate statistical differences in concentrations relative to the reference reach.
Bold values indicate an exceedance of the Eco-SSL value.